

A Community Health Worker Training Resource for Preventing Heart Disease and Stroke

National Center for Chronic Disease Prevention and Health Promotion
Division for Heart Disease and Stroke Prevention



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Dear Community Health Workers and Trainers:

Heart disease and stroke are leading causes of death and disability in the United States. In the United States, someone has a heart attack every 34 seconds. Every minute, someone will die from one.* Someone in the United States has a stroke every 40 seconds.* Every four minutes, someone dies of stroke.*

There are many ways people can protect themselves from heart disease and stroke. People can reduce their risk by making lifestyle changes, such as keeping a healthy weight; being more physically active; eating more fruits, vegetables, whole grains, fish, and low-fat dairy products; consuming less sodium, sugar, animal fat, and sugary drinks and alcohol; and avoiding or stopping smoking.

People also can reduce their risks by checking and keeping their blood pressure and cholesterol under control; talking to and keeping appointments with their doctors and nurses; and taking their medicines as prescribed. People can increase their chances of living longer and reduce damage to their hearts and brains by knowing the warning signs of heart attack and stroke and by understanding the importance of calling 9-1-1 for help right away.

A Community Health Worker Training Resource for Preventing Heart Disease and Stroke is a user-friendly curriculum that community health workers (CHWs) can use in their training and also as a resource. This Training Resource offers basic information and activities to increase skills in preventing heart disease and stroke. The CHW's Training Resource is unique because it covers, in plain language, lifestyle-related issues and risk factors for heart disease and stroke as well as clinical topics such as stroke, heart attack, heart failure, atrial fibrillation, and diabetes.

Please use this Training Resource to lead others to healthier lives. You can make a difference.

Sincerely,



Barbara Bowman, PhD

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* American Heart Association Heart Disease and Stroke Statistics-2014
<http://circ.ahajournals.org/content/129/3/e28.full>

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About Community Health Workers and The Community Health Worker’s Training Resource: A CHW Training Resource Manual for Preventing Heart Disease and Stroke

In the United States, community health workers (CHWs) help us meet our national *Healthy People 2020* goals by conducting community-level activities and interventions that promote health and prevent diseases and disability.

CHWs are known by a variety of names including community health worker, community health advisor, outreach worker, community health representative (CHR), promotora/promotores de salud (health promoter/promoters), patient navigator, navigator promotoras (navegadores para pacientes), peer counselor, lay health advisor, peer health advisor, peer leader, and peer coach.

As defined by the Community Health Workers Section of the American Public Health Association:

“CHWs are frontline public health workers who are trusted members of and/or have an unusually close understanding of the community served. This trusting relationship enables CHWs to serve as a liaison, link, or intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery. CHWs also build individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counseling, social support, and advocacy.”¹

CHWs can help overcome barriers to controlling chronic disease. In 1998, the National Community Health Advisor Study,² conducted by the University of Arizona, identified the core roles, competencies, and qualities of CHWs after contacting almost 400 of these workers. Seven core roles were identified

- Bridge cultural mediation between communities and the health care system.
- Provide culturally appropriate and accessible health education and information, often by using popular education methods.

1. American Public Health Association. . Community Health Workers Web site. Washington, D.C. <http://www.apha.org/membergroups/sections/aphasections/chw/>. Accessed April 3, 2014.

2. Rosenthal E.L., Wiggins N., Brownstein J.N., Johnson S., Borbón I.A., Rael R., et al., editors.. A Summary of the National Community Health Advisor Study: Weaving the Future. Tucson, AZ: University of Arizona; 1998. <http://www.rho.arizona.edu/Resources/Studies/cha-study>. Accessed April 3, 2014.

- Ensure that people get the services they need.
- Provide informal counseling and social support.
- Advocate for individuals and communities.
- Provide direct services (such as basic first aid) and administer health screening tests.
- Build individual and community capacity.

In addition to these general roles, CHWs can provide support to multidisciplinary health care teams in the prevention and control of chronic disease through the following ways

- Provide outreach to individuals in the community setting.
- Measure and monitor blood pressure.
- Educate patients and their families on the importance of making lifestyle changes and of taking their medicines and following their treatment plans as advised by their doctors.
- Help patients navigate health care systems by providing assistance with enrollment, appointments, referrals, and transportation to and from appointments; promoting the correct use of health services; arranging for child care or rides to and from child care; and arranging for bilingual providers or translators.
- Provide social support by listening to the concerns of patients and their family members and helping them solve problems.
- Support people in setting goals.
- Teach self-management classes.
- Evaluate how well a self-management plan is helping patients to meet their goals.
- Help people get home health equipment (such as blood pressure monitors) to support self-management.

As community health educators and role models, CHWs promote, encourage, and support positive, healthful self-management behaviors among their peers. As community advocates, CHWs help people get the services and follow-up care they need. CHWs serve as patient and community advocates; as “coaches” for disease management; and as patient “navigators,” guiding patients through the health care system. CHWs also strengthen their community’s understanding and acceptance of medical care. The recognition of their successes has led to recommendations that CHWs be included as members of health care teams to help eliminate racial and ethnic disparities in health care. In addition, CHWs can educate health care providers and

administrators about the community's health needs and the cultural relevancy of interventions by helping these providers and the managers of health care systems build their cultural competence and strengthen their communication skills.

Overview of the CHW's Training Resource

The *CHW's Training Resource* contains information and activities on heart disease and stroke and on the major risk factors for these diseases in adults. This information is presented in a format suited for direct training of CHWs. The Training Resource also includes handouts to be distributed both during training sessions and for CHWs to share with their communities. In addition, the appendices include a wealth of resources on heart disease and stroke to supplement the training sessions. The CHW's Training Resource is unique because it covers, in plain language, lifestyle-related issues and risk factors for heart disease and stroke as well as clinical topics, such as **stroke, heart attack, heart failure, atrial fibrillation, and diabetes**.

This resource follows the familiar format of the well-known National Heart, Lung, and Blood Institute (NHLBI) training curricula *Your Heart, Your Life: A Community Health Worker's Manual for the Hispanic Community*; *With Every Heartbeat Is Life: A Community Health Worker's Manual for African Americans*; and *Healthy Heart, Healthy Family: A Community Health Worker's Manual for the Filipino Community*. By following this format, the Training Resource is a compatible training companion for those people familiar with the NHLBI training manuals. The NHLBI curricula are referenced in Appendix A.

Additional references of Web nonprofit and products of other federal agencies and of private or nonprofit organizations are included. A reference in the Training Resource to a specific Web site, commercial product, process, service, or company does not constitute its endorsement or recommendation by the U.S. government or by the Centers for Disease Control and Prevention.

We thank you for your interest in this new resource, and we welcome feedback on your experiences in putting it to use. Please send your comments on the *CHW's Training Resource* to: dhdsprequests@cdc.gov.

Visit our Web site at www.cdc.gov/dhdsp.

Acknowledgments

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We wish to acknowledge our appreciation for community health workers everywhere for their dedication to improving the health and well-being of their fellow community members.

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Trainer's Guide Section: How to Use this Training Resource

What It Is

A Community Health Worker Training Resource for Preventing Heart Disease and Stroke contains evidence-based information on heart disease and stroke and serves two purposes:

1. A training manual for educating community health workers (CHWs) on heart disease and stroke for use by various instructors, health educators, nurses, and other health care professionals at health departments, community clinics, community colleges, and other organizations and agencies. Having experienced CHWs as part of the Training Resource training team can be most helpful to the learning process.
2. A reference and resource for CHWs working directly with community members.

Please keep in mind that the Training Resource is **not intended as a train-the-trainer manual** for CHWs to train people in the community. The rich, detailed information is intended to provide guidance to trainers and to be used as a resource to **complement** other trainings on cardiovascular health. Trainers should **not lecture** these materials but should adapt the content to fit an interactive, dynamic, and engaging training session. The Training Resource contains a variety of handouts, which are appropriate for CHWs **to use as tip sheets** and to give to community members as *aids for understanding* about living with heart disease and stroke-related conditions.

The CHW's Training Resource is recommended for CHWs who already have some experience in their profession. The Training Resource is not a replacement for basic CHW training, which addresses core skills and competencies.

Training

Trainers working with CHWs can teach the sessions (chapters) in the Training Resource from beginning to end, or they can teach individual lessons as needed. Appendix A contains selected resources for the trainer and the CHWs to use. Appendix B contains medicine charts that the trainer may or may not choose to use or provide to the CHWs.

The average instruction time for each session (each chapter) is approximately 2½ hours. Some chapters, such as Chapter 10: Talking to Your Doctor and Chapter 11: Taking Medicine, take less time to cover. Other chapters, such as Chapter 9: Diabetes and Chapter 12: Healthy Eating and Weight Control may require more time. The length of time for each session will be determined mainly by how involved the CHWs are in the discussions.

Each of the chapters is designed to be an **interactive learning** session. Each of the 15 chapters in the Resource contains

- **Talking Points:** suggested script, but not meant for the lesson to be read aloud.
- **An activity:** suggested interactive activity to aid understanding of the chapter content.
- **A discussion topic:** a topic to encourage a lively conversation involving CHWs sharing their personal experiences and opinions.
- **Pre-/post-test:** an evaluation tool taken before and after the lesson to assess knowledge gained from the lesson.
- **Activity Handout:** to supplement the materials as discussion tools as well as serve as “take-aways” for CHWs to give to community members.
- **What Community Health Workers Can Do:** Helpful suggestions in a hand-out format about what CHWs can do (with program support) to help community members prevent heart disease and stroke. (We encourage you to take the time to have the CHWs talk about and share these suggestions and many other things they do to help community members.)

Training Objectives

After completing the *CHW’s Training Resource*, CHWs should

- Have a basic understanding of how the heart and blood vessels work.
- Know how to measure and record blood pressure.
- Know the risk factors for and causes of heart disease and stroke.
- Know the warning signs of heart attack and stroke.
- Know the most common treatments for diseases of the heart and blood vessels; for heart attack and stroke; and for contributing conditions, such as high blood pressure, high blood cholesterol, and diabetes.
- Know how they can help people in the community who are living with heart disease or a stroke-related disability take care of themselves and prevent a second heart attack or a second stroke.
- Be able to work with communities and community members to prevent heart disease and stroke by encouraging healthy eating, physical activity, tobacco control, and stress reduction at the individual, family, and community level.
- Be able to help people take greater control over their health and to self-manage their chronic conditions.

Training Presentation

The sessions are intended to be taught in an informal manner with as much input from, and interaction with, the CHWs as possible using principles of adult and popular education.

Trainers should explain at the beginning of the course that the instruction is informal and that questions and comments are encouraged. Trainers also should remember to stop and ask if anyone has a question.

Overheads and slides are not provided, but pictures that promote understanding of the topics are included in the activity handouts. Trainers **should provide their own visual aids and materials** if they believe that more graphics or hands-on tools are needed to represent this information.

Appendix A includes sources of other educational materials.

Popular Education

Education for adult learners is at its best when completely inclusive, democratic, empowering, and focused on lived experiences. The style of teaching best suited for training CHWs is the “popular education,” or “education for critical consciousness,” method established by the Brazilian educator and writer Paulo Freire.

Popular education operates with the belief that all people have a right to knowledge and that education can be a collective process where students can teach and teachers act as facilitators. For the *CHW's Training Resource*, it is best to think of the trainers as facilitating the information, with the CHWs involved in understanding how this information relates to their own communities.

Facilitation of the Training Resource using the popular education method requires an understanding by the CHWs that they have a large effect on their communities and connecting how this information leads to their influence. This method also relies on the CHWs to take action and use community organizing as a means to create long-lasting environmental and policy changes.

We urge the facilitator or training team to create an environment of trust and weave activities into the lesson that allow the CHWs to learn, laugh, and share information and experiences. Find out what people already know and factor that into the lessons. Call upon life experiences as much as possible. Lastly, use fun but effective strategies—such as games, skits, and songs—to allow people to join in and open up.

Breaks

You should take a short break in the middle of each session. You may want to use the time to have participants do some easy stretches.

Refreshments

You may want to serve a small, heart-healthy snack and a beverage during the break. Some ideas for heart-healthy snack foods are salsa with baked, unsalted tortilla chips; fruits or vegetables with low-fat dip; juices; and water.

Facilitation

Leading the Group

- Get to know the members of your group. They may have different backgrounds, interests, and needs.
- Use words and terms that are familiar to the people in your group. A banana is known as a plátano to some and as a guineo to others. Oranges may be called naranjas or chinas.
- Encourage the group to ask questions.
- Help the group members understand how the information applies to their lives as well as to their community work.
- Help the group members remember what they learn through repetition, visuals, handouts, activities, and discussions.
- Occasionally summarize key points and concepts.
- Keep the sessions flowing smoothly so everyone stays interested and involved.
- Be ready to deal with people who talk too much. Thank the person for sharing his or her opinion; then quickly ask if anyone else has something to share.
- Assist CHWs who cannot read or write well in a way that will not bring attention to them or to their low-literacy levels.
- Offer help, but do not force anyone to accept help.
- Change the activity to a group discussion.
- Watch for clues from CHWs who may not understand the information being presented. Such clues might include puzzled looks, wrinkled foreheads, or looking away from you. (If you see these signs, try to present the information in a different way that will be easier for them to understand.)

Motivating Group Members

- To keep CHWs motivated, praise or reward their efforts. Give praise when it is deserved. Doing so gives the praise more meaning. Also, praise people in front of others. Doing so can help CHWs stay committed.
- Encourage the CHWs to share their opinions. Show interest in the group members and what they have to say. Be patient. Some people may not speak because they have never been asked to share their opinions in a group setting.

- Try to involve everyone in the discussion and activities, but do not force anyone to speak. People will speak up when they become used to the group and feel comfortable expressing themselves.

Taking Small Steps Toward Change

- Tell the CHWs that people are more likely to develop new habits if the CHWs promote small changes slowly. This approach takes patience but often brings success.
- Relate new concepts in the lessons to the CHWs' work and personal lives.
- Provide opportunities for the CHWs to practice new skills.

Getting People to Come to the Sessions

Remind the CHWs that it is important for them to come to all the sessions. Tell them that they will

- Learn something new at each session.
- Help community members.
- Socialize and meet people.

Answering Hard Questions

Remember that it's okay not to know all the answers! If you don't know the answer to a question, tell the group that you will have the correct answer after the break or by the next training session. Call a local health educator, nutritionist, nurse, or doctor to find the answer.

Keeping People on Track

If a CHW gives incorrect or incomplete information during a session, provide the group with the correct information. Give the CHW credit for any part of his or her answer that is correct. Tell the group that people often hear incorrect information and believe it to be fact. Tell the CHWs that one important reason why they are taking the course is to get correct information.

Have a good time! You are doing an important service for your community!

Recommended Complementary Activities

Trainers should consider complementing the Training Resource trainings with additional "hands-on" experiences taught by those involved in cardiovascular health. Encouraging "out-of classroom" activities can deepen the CHWs' understanding of important concepts and strengthen their roles in their communities. The *CHW's Training Resource* is only one tool. Learning from nurses, pharmacists, cardiologists, life coaches, fitness experts, nutritionists,

hospital administrators, and patients themselves provides deeper insight into the many facets of heart disease and stroke. Therefore, the trainer should consider inviting speakers as well as providing training and shadowing opportunities to enrich the sessions. The following are suggestions to consider

- Either train or arrange for the CHWs to get professional training on taking accurate blood pressure measurements.
- Arrange for the CHWs to get training in CPR (cardiopulmonary resuscitation) and in the use of an automated external defibrillator.
- Arrange, if possible, for the CHWs to visit stroke and cardiac rehabilitation centers and hospital emergency departments to view the equipment used for stroke and heart attack patients and to meet staff. Perhaps the staff could review the tests and equipment used and answer questions on site.
- Invite emergency medical technicians to class or take the class members to an emergency medical services training center to learn more about signs of heart attack, heart failure, and stroke; the importance of calling 9-1-1; and what is done during transport to the hospital to keep people alive.
- Invite a pharmacist to the class so that students can learn tips for medicine management and ask questions. Perhaps the pharmacist could review the medicine handouts (located in Appendix B).
- Teach or arrange for the CHWs to learn stress-reduction techniques, such as deep breathing and visual imagery.
- Invite local staff to the class or arrange for the class members to visit local human resources and medical agencies to learn how to bridge the gaps in basic living and medical needs to support patient self-management.

We also recommend that trainers research local community resources and prepare a resource manual for the CHWs. There may already be community resource handouts that information could be added (i.e., caregiver support group information; locations and times of free blood pressure screenings or measurements; locations of hospitals designated as “stroke centers”; locations of the closest hospitals in the CHWs’ neighborhoods; and locations of clinics and other resources for getting free or low-cost medications, blood pressure machines, bathroom scales, glucose monitoring supplies, and other needed medical items).

Include a Cultural Activity in Each Session

In a course for CHWs who work with community members in areas that heavily use more traditional forms of medical care or where health care practices and traditions differ from “Western medicine,” trainers should consider including an activity that provides the opportunity for the CHWs to talk about problems they might encounter as a result of differences in cultures and traditions. Such an activity could be most helpful.

Let the CHWs talk about the barriers in their communities and how they can get community members to follow the advice given in each session.

Here is one example of cultural activity on heart attack.

Discussion: Preventing Heart Attacks in Your Community

Ask the CHWs to name some of the problems or barriers they think they will encounter when promoting heart disease and stroke prevention. Then ask the CHWs to think of ways to overcome these barriers.

Using a flip chart, draw a line down the middle of the paper. Write the problems that the CHWs identify on the left and the ways to overcome these problems on the right.

Discussion topics: What do your community members feel is the cause of heart attacks and stroke?

What is the best way to inform members of your community of the risk factors for heart attack and the healthy lifestyle behaviors that you have just learned?

Some questions to ask the CHWs might be

- What type of problems might you encounter when teaching Western medicine to elders in the community?
- What are some beliefs that members of your community have about heart disease and stroke?
- How are heart attacks treated in your culture (or native country)?
- Think of ways you can combine traditional treatments in your community with the treatments used by doctors.

Discussion topics: Now that you know about the risk factors and behaviors that might lead to a heart attack, how can you help prevent heart attacks in your community? It might help you to talk about some of the problems you could face.

- For example, could you face problems with older community members not taking their medicine? Not trusting the doctor? Fearing tests that diagnose health problems?
- Could you face problems with men not going to the doctor? Not providing the information the doctor needs? Not answering the doctor's questions truthfully?
- What might keep women from doing what they need to prevent a heart attack?
- How might a member of your community react when learning that he or she has had a heart attack or stroke?

Resource: *The Provider's Guide to Quality & Culture* is a joint project of Management Sciences for Health (MSH), U.S. Department of Health and Human Services, Health Resources and Services Administration, and Bureau of Primary Health Care. <http://www.innovations.ahrq.gov/content.aspx?id=942>

What CHWs Can Do

Throughout the chapters of the Resource, you will find lists of helpful suggestions about what CHWs can do (with program support) to help community members prevent heart disease and stroke. We encourage you to take the time to have the CHWs talk about and share these and many other things they do to help community members. The following is a list of general tips and practices that CHWs can use to help community members improve their health and support people in their access to health care.

Support People in Their Health Care Needs

- Remind community members to get screened for high blood pressure, high blood cholesterol, and high blood glucose.
- Remind community members to check their blood pressure on a regular basis.
- Tell community members about places in their community (for example, fire stations, community centers, drug stores) where they can get their blood pressure checked for free.
- Help people make and keep appointments and follow-up visits with their doctors.
- Assist community members who do not speak English.
- Help community members who do not have a doctor to find one.
- Help those who cannot afford a doctor to find free health care or places where cost is based on ability to pay (for example, public health departments, clinics run by churches, community clinics).
- Help community members who do not have transportation or do not know how to use public transportation to get to the clinic.
- Act as a bridge between the stroke survivor and the health care team (for example, the doctors, nurses, pharmacists).
- Tell the health care team about specific patient needs, successes, and barriers to self-care (for example, cultural beliefs, motivation, disability, safety issues).

Help People Make Better Lifestyle Choices

- Help people choose a diet with plenty of vegetables, fruits, and grain products. Encourage people to eat foods rich in minerals and vitamins, such as citrus fruits, tomatoes, and bananas; grains; leafy green vegetables; and navy, pinto, and kidney beans.
- Help people choose a diet low in fat, saturated fat, trans fat, and cholesterol.

- Encourage people to eat less fatty food and to decrease the foods they fry.
- Help community members learn how to reduce their intake of salt and sodium.
- Get families involved in making healthy choices about eating—both at home and away from home.
- When making home visits, look for clues that the family may need tips for eating healthier foods (for example, if the family has lots of snack foods, sodas, or high-fat items in the house).
- Encourage people to limit alcohol intake to no more than one (for women) or two (for men) drinks a day. One drink is 1 oz. of hard liquor, 4 oz. of wine, or 12 oz. of beer.
- Work with community members to find ways to make low-cost fruits and vegetables and low-salt and low-fat foods available in the community, in schools, and at work sites.
- Encourage people to be more active.
- Get families involved in making healthy choices about being active.
- Work with community leaders to find safe places for people to walk and encourage the use of other physical activity resources in the community and at work sites. CHWs can start and lead walking groups.
- Encourage overweight people to lose weight.
- Encourage people to quit smoking.

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The Community Health Worker's Training Resource: A Training Resource for Preventing Heart Disease and Stroke

Chapter	Title
1	Heart Disease and Stroke Overview
2	Stroke
3	Heart Attack
4	Heart Failure
5	Atrial Fibrillation
6	Depression and Stress
7	High Blood Pressure
8	High Blood Cholesterol
9	Diabetes
10	Talking to Your Doctor
11	Taking Medicine
12	Healthy Eating and Weight Control
13	Physical Activity
14	Tobacco Control
15	Children and Teens
Appendix A	Resources
Appendix B	Medicine Charts

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Objectives

By the end of this session, community health workers (CHWs) will be able to

1. Define heart disease and stroke.
2. Explain what heart disease and stroke have in common.
3. Define risk factors for heart disease and stroke.
4. Explain how the heart works.
5. Explain the role of blood vessels in heart disease and stroke.

Chapter Outline

- A. What Is Heart Disease? What Is Stroke?
- B. Facts About Heart Disease and Stroke
- C. Risk Factors for Heart Disease and Stroke
- D. How the Heart and Brain Work
- E. What Do Blood Vessels Have to Do With Heart Disease and Stroke?
- F. How Is Blood Flow Blocked?
- G. Diseases Caused by Blocked Arteries

Pretest Questions

Circle letters for ALL correct answers. A question may have more than one correct answer.

1. Which of the following are risk factors for heart disease and stroke?

- a. Smoking.
- b. High levels of blood cholesterol.
- c. Diabetes.
- d. High blood pressure.

2. Heart disease and stroke have what problem(s) in common?

- a. Blood vessels that do not allow enough blood to get to the heart and brain.
- b. Narrow blood vessels that are due to a buildup of plaque (fatty deposits) on their walls.
- c. Blood vessels that carry oxygen-rich blood throughout your body.
- d. Blood vessels that are weak and could burst.

3. There are two main ways a stroke can happen:

- a. An artery in the brain can become blocked by a clot.
- b. A vein near the surface of a leg becomes swollen.
- c. Artery in the brain bursts and stops the supply of blood to parts of the brain.

A. What Is Heart Disease? What Is Stroke?

Heart disease is any disease or condition that affects or damages the heart or blood vessels.

Sometimes doctors or other health care professionals use the word “**cardiovascular**” to describe a number of diseases and conditions that affect the heart.

Activity: Write *cardiovascular* on a flip chart. Ask the CHWs if they know what this word means. The first part of the word—*cardio*—means “related to the heart.” The second part of the word—*vascular*—means “related to the blood vessels.”

► Talking Points:

Stroke is another problem that affects a large number of people. A stroke happens when a blood vessel to the brain becomes blocked or when the vessel bursts open and blood can no longer reach the brain. This blockage or rupture causes brain damage.

A medical term for a stroke is **cerebrovascular disease**.

Cerebrovascular is a broad term that includes stroke and other diseases involving the blood vessels that affect the brain.

Activity: Write *cerebrovascular* on a flip chart above *cardiovascular*. Ask the CHWs if they see a similarity between the two words. *Cerebro* means “related to the brain.” *Vascular* means “related to the blood vessels.”

► Talking point:

From these two words, we learn that heart disease and stroke have something in common: blood vessels—or, rather, problems with the blood vessels.

B. Facts About Heart Disease and Stroke

► Talking point:

We often hear about the numbers of deaths that different diseases cause. For heart disease and stroke, these numbers are very large

- Heart disease and stroke are leading causes of death and severe disability in the United States.
- Together, heart disease and stroke cause more than half of all deaths in the United States.

► Talking Points:

The high numbers of deaths from heart disease and stroke are only part of the story.

Heart disease and stroke are also the leading causes of severe long-term disability among working-age adults.

Having a disability means a person is unable to do some or all of the tasks of daily living.

We often think of heart disease and stroke as affecting mostly men or older people, but heart disease is also the leading cause of death in women—and it's a major killer of people in the prime of life.

Young and old people alike need to understand what causes heart disease and stroke and also what can be done to prevent these conditions.

C. Risk Factors for Heart Disease and Stroke

► Talking points:

Heart disease and stroke have many of the same risk factors. A risk factor for heart disease or stroke is a behavior or condition that makes a person more likely to have heart disease or to have a stroke or heart attack. Reducing your risk for heart disease also will reduce your risk for stroke.

The main risk factors for heart disease and stroke are

- High blood pressure.
- High blood cholesterol.
- Diabetes.
- Tobacco use.
- Unhealthy diet.

- Physical inactivity.
- Overweight.
- Drinking too much alcohol.
- Age.
- A previous heart attack or stroke.
- Family history of heart attacks and strokes at an early age.

When you meet with community members, make sure to talk with them about these risk factors. Some risk factors cannot be changed, such as older age and family history, but this information is important to know.

The good news is that people can prevent or lower their risk for heart disease and stroke by changing their behaviors. An example of this is adopting healthy lifestyle habits. These habits include eating healthy foods, becoming more active, keeping or reaching a healthy body weight, and not using tobacco.

The earlier someone chooses to adopt healthy lifestyle habits, the better, because heart disease can begin to develop in childhood. It is always good to encourage people of all ages to lead healthy lifestyles to reduce their risk of heart disease, stroke, and other health problems.

Changing unhealthy habits is key for those who already have high blood pressure, high blood cholesterol, or diabetes. It is also important for those who have heart disease or who have had a heart attack or stroke. Everyone can have better health by following healthy lifestyles, taking their doctors' advice, and taking medicines that their doctors may prescribe for them. Also, heart disease, heart attacks and strokes can be prevented by working with your health care team to reduce your risk.

Before we learn about how we can prevent heart disease and stroke, we need to understand how the heart and brain work.

D. How the Heart and Brain Work

Activity 1–1: The Heart (review with the CHWs)

► Talking point:

The heart is a powerful muscle that pumps blood through the blood vessels to every part of the body. It's about the size of your fist and is located almost in the middle of your chest beneath the breastbone. About one-third of the heart is on the right side of the body, and about two-thirds of the heart is on the left side. (Use Activity Handout 1-1)

Activity 1–2: How the Heart Works (review with the CHWs)

► Talking point:

For you to stay alive, your heart can never stop pumping blood. If the heart does stop for more than a few minutes, nutrients from food and oxygen carried by the blood can't get to the other organs of the body and they will be damaged. You will die unless the heart quickly starts pumping again.

(Use Activity Handout 1-2)

Activity 1-3: The Brain (review with the CHWs)

► Talking points:

The brain controls many of the body's functions. If the brain becomes damaged, it may become unable to send messages to the muscles and could leave a person unable to walk, talk, or to use his or her hands. Damage to the brain also can affect memory, emotions, learning, or just about any other activity or function depending on the part of the brain that is damaged.

Because the brain controls such critical functions as breathing, heartbeat, and kidney function, a person can die if the brain is badly damaged.

E. What Do Blood Vessels Have to Do With Heart Disease and Stroke?

► Talking Points:

Earlier, we learned that heart disease and stroke have one thing in common. They are both diseases that involve the blood vessels.

The blood vessels and the heart work together to bring blood to every part of the body. Every time the heart beats, it pushes blood through the blood vessels to all parts of the body. Blood vessels that carry blood away from the heart to the rest of the body are called **arteries**.

Blood leaving the heart is rich in oxygen. The other blood vessels, called **veins**, bring that blood back to the heart. The blood returning to the heart is low in oxygen.

In addition to carrying food and oxygen to all organs and tissues, blood picks up and takes away waste made by the body's cells. Blood carries nutrients and oxygen to the cells and organs in all parts of the body through blood vessels. If the blood is blocked or cut off, the cells begin to die and the organs become damaged.

F. How Is Blood Flow Blocked?

► Talking Points:

A problem with blocked blood vessels or a problem with the heart's ability to pump blood can slow blood flow.

As we learned earlier, the blood vessels that carry blood from the heart to the rest of the body are called arteries. Over the course of people's lives, some of their arteries may harden and get narrower. This happens because of cholesterol, a waxy kind of fat that travels in the blood.

When there is too much cholesterol, it can stick to the inside of blood vessels and form a buildup called plaque. A little plaque buildup on the walls of the blood vessels is a normal part of aging, but too much plaque buildup is dangerous.

Over time, this plaque buildup makes the inside of blood vessels narrower than they should be. Then blood flow decreases, which slowly reduces the oxygen supply to other parts of the body.

The plaque can clog an artery slowly, or pieces of plaque may break away and cause a blood clot to form suddenly. The clot can travel through the bloodstream to another part of the body and block a blood vessel, cutting off the oxygen supply all at once.

If a piece of plaque or a blood clot blocks a blood vessel that feeds the heart, it can cause a heart attack. If a piece of plaque or a blood clot blocks a blood vessel that feeds the brain, it can cause a stroke.

Activity 1-4: Arteries (review with the CHWs)

G. Diseases Caused by Blocked Arteries

► Talking Points:

The buildup of plaque in the arteries is a disease known as **atherosclerosis**. Sometimes it is called hardening of the arteries.

When plaque builds up in the arteries that feed the heart, it causes the arteries in the heart to harden and become narrow. Doctors often call this condition **coronary artery disease**.

When the coronary arteries have a lot of plaque buildup, the heart tissue does not get enough blood. The heart tissue needs a lot of blood to function well, and even a short amount of time without a good blood supply can cause serious damage to the heart tissue.

If plaque totally blocks an artery in the heart, part of the heart tissue will die because no blood can get to it.

Also, pieces of plaque can break away and cause a blood clot to form suddenly. The clot can travel through the blood and block a blood vessel in the heart. This can cut off the oxygen and cause nearby heart tissue to die.

When part of the heart dies, it is called a myocardial infarction, or heart attack. When this happens, the heart may struggle to beat normally; in the worst cases, the heart may stop beating altogether.

Many people have mild chest pain or pressure from time to time without having a heart attack. This mild pain or pressure occurs when the heart muscle does not get enough blood. But a feeling of severe chest pain or pressure is a warning sign that a person should get medical help right away.

People with coronary artery disease need to make good lifestyle choices! This will help them keep existing heart disease from getting worse and can even help them avoid having a heart attack. But, for some people with very narrow coronary arteries, lifestyle changes alone might not be enough to reduce their risk of a heart attack. These people may need surgery to help their hearts.

Stroke: A condition that happens when the brain does not get the blood it needs and the brain cannot work properly.

Like all other parts of the body, the brain needs a regular flow of blood to provide it with the oxygen and nutrients that it needs to function and stay healthy. Without oxygen, brain cells die in a few minutes and cannot be replaced.

There are two main ways a stroke can happen

- A blood vessel in the brain can become blocked by a clot.
- A blood vessel in the brain can burst and stop the supply of blood to parts of the brain.

Either kind of stroke can cause serious damage to the brain.

Stroke can affect a person's ability to move, to speak, to see, and to remember.

The amount of damage differs in each person who has had a stroke. A stroke also can lead to death.

► Talking Points:

Heart disease and stroke are leading causes of death in the United States. But most deaths caused by heart disease and stroke can be prevented.

As a CHW, you have a very important role to play in helping members of your community learn about heart disease and stroke.

You can help people in your community choose healthy lifestyle changes to prevent or lessen the effect of heart- and stroke-related problems.

You also can make a difference in your community by teaching and encouraging people to take better care of themselves. You will learn how to help them understand how to prevent or to better control and manage high blood pressure, high blood cholesterol, diabetes, and heart conditions.

Post-test Questions

Circle letters for ALL correct answers. A question may have more than one correct answer.

- 1. Which of the following are risk factors for heart disease and stroke?**
 - a. Smoking.
 - b. High levels of blood cholesterol.
 - c. Diabetes.
 - d. High blood pressure.

- 2. Heart disease and stroke have what problem(s) in common?**
 - a. Blood vessels that do not allow enough blood to get to the heart and brain.
 - b. Narrow blood vessels that are due to a buildup of plaque (fatty deposits) on their walls.
 - c. Blood vessels that carry oxygen-rich blood throughout your body.
 - d. Blood vessels that are weak and could burst.

- 3. There are two main ways a stroke can happen:**
 - a. An artery in the brain can become blocked by a clot.
 - b. A vein near the surface of a leg becomes swollen.
 - c. An artery in the brain bursts and stops the supply of blood to parts of the brain.

Correct test answers:

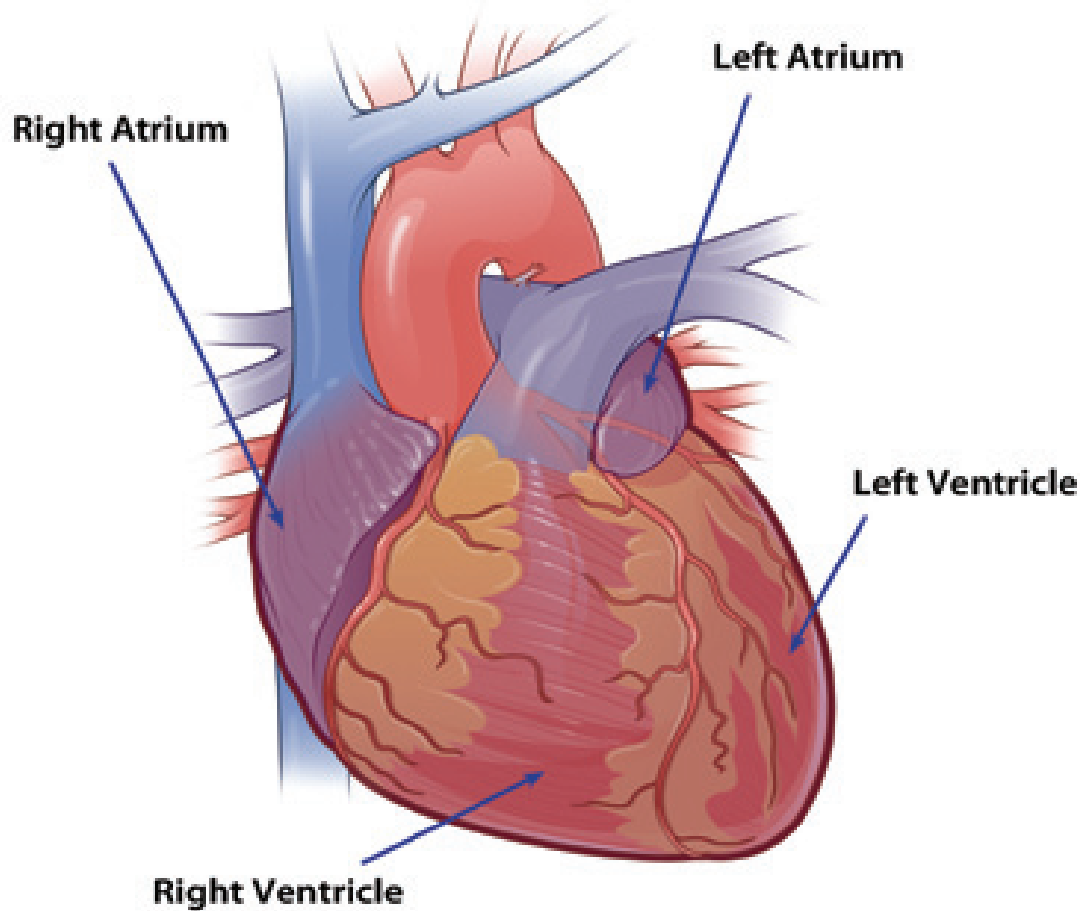
1. a, b, c, d

2. a, b, d

3. a, c

The Heart

Activity 1–1



The heart is a hollow, muscular, cone-shaped organ about the size of a fist. It is located almost in the middle of the chest beneath the breastbone.

The heart has two upper chambers and two lower chambers.

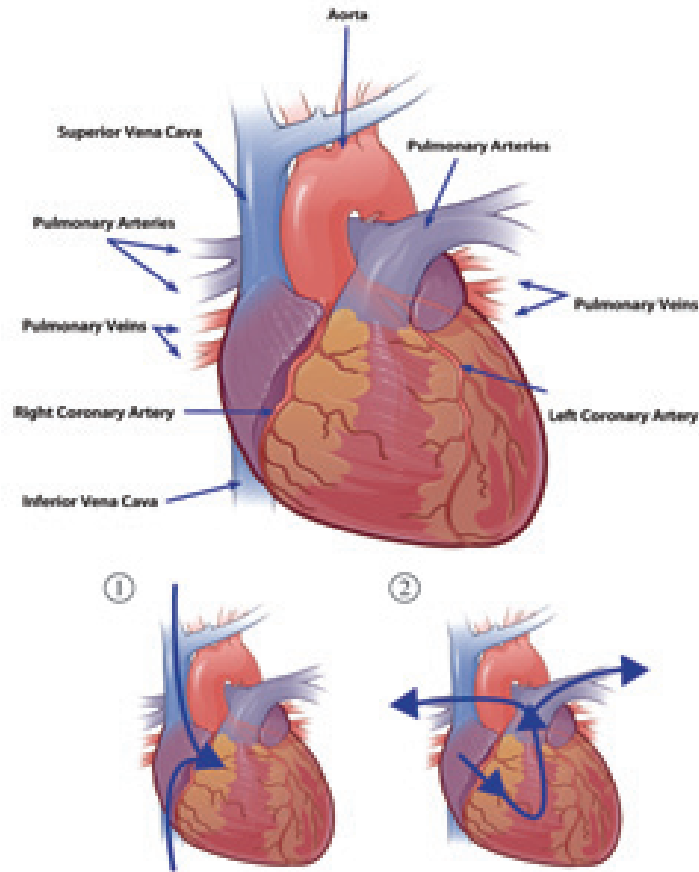
The upper chambers (the right atrium and the left atrium) receive blood.

The lower chambers (the right ventricle and the left ventricle) pump blood.

Your Heart, Your Life: Your Heart, Your Life Picture Cards for Community Health Worker: Picture Card 1.1. National Heart, Lung, and Blood Institute; National Institutes of Health; U.S. Department of Health and Human Services. http://www.nhlbi.nih.gov/health/prof/heart/latino/pict_crd.pdf

How the Heart Works

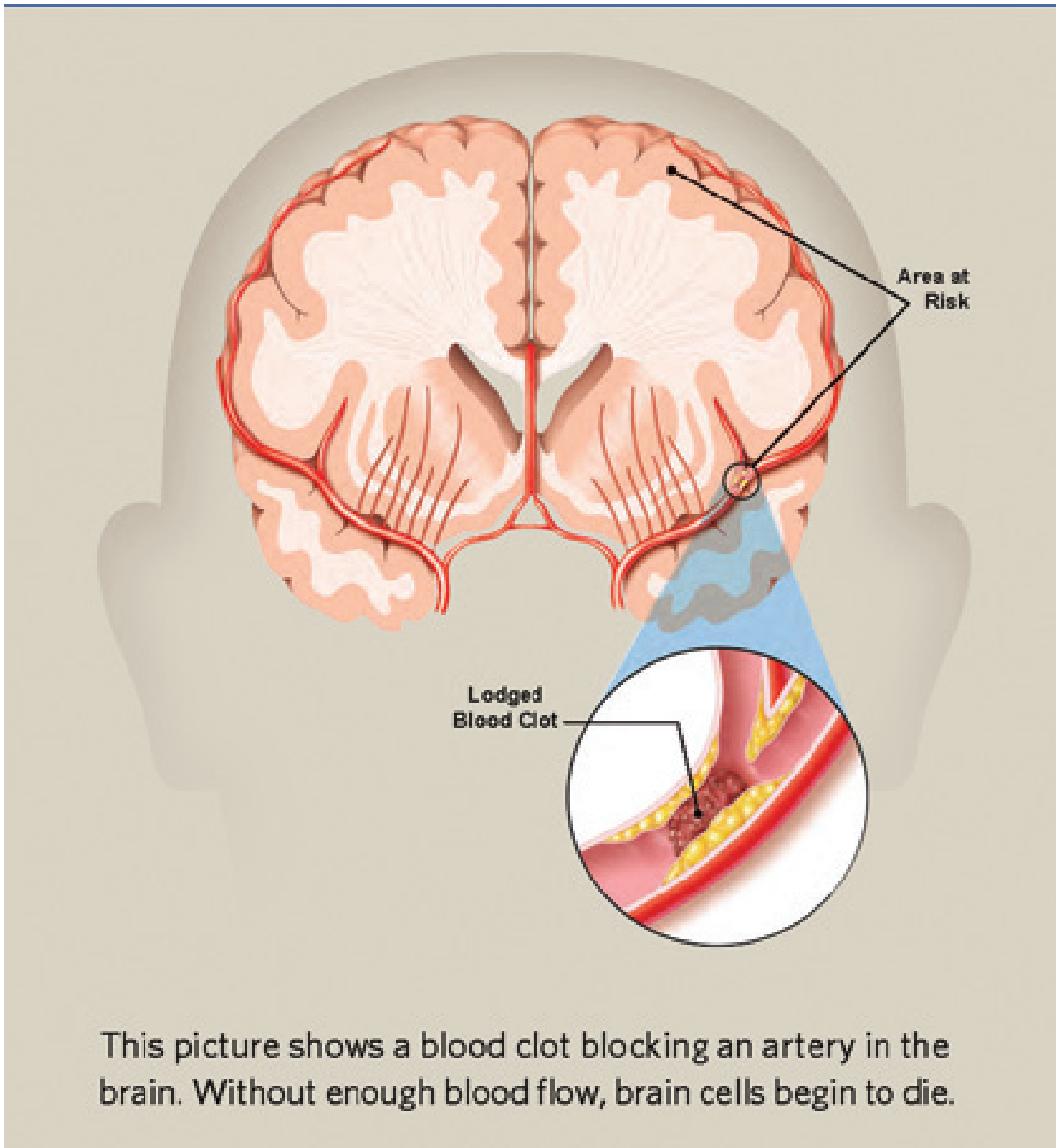
Activity 1-2



1. Blood (with little oxygen) enters the right top chamber of the heart through the largest veins in your body.
2. Blood then flows down to the right lower chamber so it can be pumped out to the lungs.
 - a. In the lungs, waste such as carbon dioxide is taken from the blood.
 - b. The blood then gathers more oxygen from the lungs.
3. The blood, made rich with oxygen in the lungs, returns to the heart and enters the upper left chamber.
4. The blood then flows down to the lower left chamber and is pumped to the rest of your body. Your coronary arteries carry oxygen-rich blood to all parts of your heart.

Your Heart, Your Life Picture Cards for Community Health Workers: Card 1.3. National Heart, Lung, and Blood Institute; National Institutes of Health; U.S. Department of Health and Human Services.

www.nhlbi.nih.gov/health/prof/heart/latin/pict_crd.pdf



Objectives

By the end of this session, community health workers will be able to

1. Describe the two main types of stroke.
2. List major risk factors for stroke.
3. Describe the warning signs of stroke.
4. Explain how medicines prevent stroke.
5. Explain some of the methods used to treat stroke.
6. Describe the effects of a stroke.
7. Describe some of the methods used for stroke rehabilitation.
8. Explain how community health workers can help people who are at risk for stroke and for People Who Already Have Had a Stroke.

Chapter Outline

- A. What Is a Stroke?
- B. What Are the Risk Factors for Stroke?
- C. How to Prevent Strokes
- D. What Are the Warning Signs of a Stroke?
- E. Why Call 9-1-1?
- F. How Do Medicines Help Prevent a First or Second Stroke?
- G. How Does a Doctor Diagnose a Stroke?
- H. How Is a Stroke Treated?
- I. What Are the Results of Stroke?
- J. What Is Stroke Rehabilitation?

Pretest Questions:

Circle letters for ALL correct answers. A question may have more than one correct answer.

1. What happens in the two main types of stroke?

- a. A blood vessel bursts in a blood vessel in the brain.
- b. A blood vessel bursts in the heart.
- c. A blood vessel becomes blocked in the brain.
- d. A blood vessel becomes blocked in the heart.

2. Which of the following are warning signs of stroke?

- a. Sudden confusion, trouble speaking or understanding speech.
- b. Sudden, severe headache with no known cause.
- c. Sudden numbness or weakness of the face, arm or leg, especially on one side of the body.
- d. Sudden trouble seeing in one or both eyes.
- e. Sudden trouble walking, dizziness, loss of balance or coordination.

3. Which of the following are risk factors for stroke?

- a. High blood pressure.
- b. Heart disease.
- c. Smoking.
- d. High cholesterol.
- e. Diabetes.

4 . If you believe someone is having a stroke what should you do?

- a. Drive them immediately to their doctor's office.
- b. Drive them immediately to the nearest emergency room.
- c. Call 9-1-1 immediately.

5. Rehab after a stroke can help people with:

- a. Problems with walking.
- b. Loss of memory about how to dress themselves.
- c. Speaking more clearly.
- d. Depression.

► Talking Point:

About 800,000 people in the United States have a stroke each year.

Every 4 minutes someone dies of a stroke. Stroke is the fourth leading cause of death for women and men in the United States.

Stroke is a leading cause of serious, long-term disability in adults.

A. What Is a Stroke?**► Talking Point:**

Strokes happen when blood flow to your brain stops.

Like all other parts of the body, the brain needs a regular flow of blood to provide it with the oxygen and nutrients that it needs to function and stay healthy. Without oxygen, brain cells die in a few minutes and the brain cannot work properly. A stroke can cause lasting brain damage, long-term disability, or even death.

There are two main ways a stroke can happen

- **A blood vessel in the brain can become blocked** by a clot. This type of stroke is called an ischemic (is KE mik) stroke. Eight out of 10 strokes are ischemic strokes.
- **A blood vessel in the brain can burst. This type of stroke is called a hemorrhagic** (hem uh RAJ ik) stroke.

Either type of stroke can cause serious damage to the brain.

Strokes can affect your ability to move, to speak, to see, and to remember.

The amount of damage is different in each person who has had a stroke.

B. What Are the Risk Factors for Stroke?**► Talking Point:**

A risk factor is a condition or behavior that increases a person's chance of having a stroke. Stroke shares many risk factors with heart disease.

Having a risk factor for stroke does not mean you will have a stroke. On the other hand, not having a risk factor does not mean you will avoid a stroke. But your risk of stroke grows as the number and severity of risk factors increases.

Activity 2–1: What are Risk Factors for Stroke? Ask the CHWs if they can think of other conditions or behaviors that might increase the risk of stroke. Do CHWs understand that anything that has an impact on high blood pressure and damages blood vessels is a strong risk for stroke?

► Talking Points:

Main risk factors. There are several main risk factors for stroke

- Hypertension or high blood pressure (most serious risk factor). High blood pressure causes the risk of stroke to increase by 2 to 4 times before age 80.
- Heart and artery disease. Common heart problems such as coronary artery disease and, irregular heart beat (atrial fibrillation) can cause blood clots that may break loose and block vessels in or leading to the brain.
- Diabetes. If blood glucose levels are high at the time of a stroke, then brain damage is usually much worse than when blood glucose is well-controlled.
- Cigarette smoking. It has been linked to the buildup of fatty substances in the carotid artery, the main neck artery supplying blood to the brain. Blockage of this artery is the leading cause of stroke in Americans. Also, the nicotine in cigarettes raises blood pressure. Carbon monoxide from smoking reduces the amount of oxygen your blood can carry to the brain. Cigarette smoke makes your blood thicker and more likely to clot.
- History of a stroke or transient ischemic attack (TIA; stroke-like symptoms that appear for a very short period of time and then disappear). While TIAs are not strokes, they are a powerful warning that a full stroke may soon follow). Only a doctor can tell for sure if you are having a TIA. If you've already had a TIA or stroke, your risk of having a stroke is many times greater than someone who has never had one.

Risk Factors You Can Control with the Help of your Healthcare Team

These factors contribute to the main risk factors and can increase the risk of having a stroke

- Too little physical activity.
- What and how much you eat. Too much sodium, fat, and cholesterol in your diet can cause high blood pressure and high blood cholesterol.

- Obesity or being overweight.
- Stress. Too much stress raises blood pressure and blood glucose.

Risk Factors Not Under Your Control

- Family or personal history of heart disease or heart attack.
- Race/ethnicity. African Americans have a higher risk of stroke than other populations. This may be because many African Americans have high blood pressure that is uncontrolled.
- Gender. Men tend to have strokes at an earlier age than women.
- Increasing age.

C. How to Prevent Strokes

► Talking Point:

If you make lifestyle changes such as eating a healthy, low-sodium diet, being more physically active, stopping smoking, and keeping a healthy weight, you can prevent or control the most important risk factor for stroke—high blood pressure.

It is also important to keep your blood sugar at normal levels.

Limit the amount of alcohol you drink (no more than one drink each day for women and two for men).

If your doctor advises it, take medicines to control high blood pressure. This will greatly reduce your risk for stroke.

Activity 2-1: Reducing Risk Factors

- Ask the CHWs to break into groups of equal numbers.
- Assign each group two different risk factors related to lifestyle.
- Have each group talk about how they can help people in the community change unhealthy habits that increase the risk for stroke. Have the groups share their information with each other.

D. What Are the Warning Signs of a Stroke?

► Talking Point:

Not all strokes are the same, but there are general signs to warn a person that he or she may be having a stroke.

The signs are

Sudden numbness or weakness of the face, arm, or leg, especially on one side of the body.

- Sudden confusion, trouble speaking, or trouble understanding.
- Sudden trouble seeing in one or both eyes.
- Sudden trouble walking, dizziness, or loss of balance or coordination.
- Sudden severe headache with no known cause.

These warning signs can last for a few minutes or for hours. A stroke can often take place without a person knowing that it is happening. People may know right away that they are having a stroke, or they might not notice that something is wrong until hours or days after they have had the stroke.

Activity 2–2: What Are the Warning Signs of Stroke?

- A. Ask the CHWs to review the handout. Ask if they have any questions.
- B. Ask if the CHWs know anyone who has had a stroke and survived.
- Did this person know right away that he or she was having a stroke?
 - How did this person know he or she was having, or had already had, a stroke?
 - Did this person get treatment immediately, or did it take a while for him or her to seek treatment?
 - How did the stroke change this person's life? How did it change the lives of family members?
 - Allow CHWs time to share their stories and to ask questions about stroke. Tell them it is important for CHWs to help others learn to recognize the warning signs of stroke—so that community members can safeguard their own health and also spot warning signs in a person who is having a stroke but does not know what is happening.
- C. This activity consists of two role plays that can help CHWs learn the skills needed to teach community members about the warning signs of a stroke and the importance of getting emergency care—quickly—when a stroke occurs.
- Ask CHWs to break into several groups.
 - Hand out the handout for Activity 2–2: Recognizing the Warning Signs of a Stroke.
 - Read the first role play to the CHWs.
 - Ask two CHWs in each group to play the roles of Danny and a CHW.
 - Do the same for the second role play. Ask two other CHWs to play the roles of Maria and a CHW.
 - Allow 5–10 minutes for the groups to complete each role play.
 - Ask groups to share what information they gave to Danny and Marie.

E. Why Call 9-1-1?

► Talking Point:

Why should people call 9-1-1 or the local emergency number when someone is having a stroke?

Because a stroke is a medical emergency, every minute counts.

It's critical to get the person to the hospital for treatment quickly!

There are treatments that can greatly improve recovery, but only if they are started soon after the stroke has taken place. So it's very important to act in time.

F. How Do Medicines Help Prevent a First or Second Stroke?

► Talking Point:

If you have had a stroke or are at high risk for having a stroke, your doctor may advise you to take medicine that will help prevent stroke. One out of 4 people who recover from their first stroke will have another stroke within 5 years. This makes it vital that people take their medicines as their doctor advises.

Several types of medicine help prevent stroke, and your doctor may advise you to take one or more of them. They include the following

- **Blood pressure-lowering medicines** might be needed if blood pressure is high. Keeping your blood pressure down is very important in reducing the risk of stroke. High blood pressure is a leading cause of stroke and damages blood vessels in the following ways
 - If blood presses against the blood vessel walls with too much force as it flows, the vessels may become damaged. They may become thick and lose their ability to stretch. This narrowing of the blood vessels reduces blood flow.
 - Blood clots can form in damaged areas of the blood vessel walls.
 - High blood pressure can damage blood vessel walls to the point that they burst open.
- **Cholesterol-lowering medicines** might be needed if blood cholesterol is high. In the overview session, we talked about arteries, which are the blood vessels that carry blood away from the heart and to other parts of the body such as the brain. When you have too much cholesterol (a type

of fat) in the blood it can join with other fats to build up in the walls of your blood arteries. The arteries become clogged and narrow, and as a result less blood can flow through the arteries. A blood clot can form and when it blocks an artery in the brain or an artery leading to the brain, it can cause a stroke.

- **Insulin and oral diabetes medicines** might be needed for persons with diabetes to reduce high levels of blood sugar. People with diabetes are at greater risk for strokes than those who don't have diabetes. High levels of blood glucose (blood sugar) over time damages the arteries and can lead to stroke.

Two types of medicine are commonly given to prevent a second stroke:

- **Anticoagulants.** These medicines are blood thinners that prevent the blood from clotting and causing a stroke.
- **Antiplatelet agents. Platelets are blood cells that help the blood clot when** blood vessels are injured. Antiplatelet medicines prevent platelets from causing a clot in blood vessels.

Activity 2–3: Tips for Taking Medicine to Prevent First or Repeated Stroke

Review the handout with the CHWs. Talk about why it is important for a community member to know the answers to these questions.

G. How Does a Doctor Diagnose a Stroke?

► Talking Point:

To find out if a person has had a stroke, a doctor or another member of the emergency department staff of the hospital will

Ask about the warning signs the person felt.

- Ask the person about his or her health history.
- Order certain blood tests.
- Do a physical and neurological (brain) exam.
- Do other tests to get an idea of what is happening in the brain.

Activity 2–4: Stroke: What Happens at the Hospital?

Review the handout with the CHWs. Ask if there is any other information they might like to have if they were being treated in an emergency room for a possible stroke.

► Talking Point:

Other tests must be done to determine if there is bleeding in the brain, the amount of damage to the brain, and the location of the damage.

Some common tests include the following:

Tests that create pictures of the brain that look like ordinary X-rays. These tests are computed tomography (CAT or CT) scans and magnetic resonance imaging (MRI).

Blood flow tests that find blockages in blood vessels in the brain. Emergency medical personnel decide whether such tests will be useful, and, if so, which ones to use on each patient.

H. How Is a Stroke Treated?

► Talking Point:

The key to stroke survival and recovery is to get medical attention as soon as possible.

For many strokes, the chance of recovery is good if treatment is given within a few hours. Speedy treatment also ensures that the person will have as little disability as possible from the stroke.

Treatment for stroke will most likely include medicine. These medicines are usually given to prevent blood clots or to lower blood pressure in those who have high blood pressure.

There is a medicine that dissolves the blood clot that's causing the stroke, but it must be given within three hours of the start of the stroke to have the best effect. The earlier it is given after a stroke, the better the outcomes for the patient.

During a stroke every minute that brain cells don't get oxygen means greater damage to the brain. The medicine may stop and even reverse this brain damage if it is given immediately after the stroke. The longer the delay in treatment the less likely it is that the medicine will help.

That's why it's so important that everyone recognizes stroke as an emergency and takes action immediately.

Treatment for stroke may also include surgery to remove a blockage in a neck artery or to stop the bleeding in a blood vessel in the brain.

Newer treatments use devices that can be put into blocked or narrowed blood vessels to expand the vessels and increase blood flow to the brain.

The amount of time a person has to stay in the hospital after having had a stroke depends on the amount of damage to the brain.

The greater the damage, the longer the person will have to stay in the hospital.

I. What Are the Results of Stroke?

► Talking Point:

The effects of a stroke depend on the location of the damage in the brain and how much brain tissue is damaged.

A person who has had a stroke and has survived may have physical problems or other disabilities from the stroke. He or she may recover from the stroke completely or only partially.

A person who has had a stroke is likely to face emotional problems in addition to the physical ones.

Disabilities caused by stroke include

- Paralysis or inability to move (usually limited to one side of the body).
- Vision problems.
- Memory loss.
- Difficulty talking or understanding what others are saying.
- Change in behavior, such as asking question after question over and over.

A stroke survivor may cry easily or may have sudden mood swings, often for no clear reason.

A person can suffer depression and mood swings as a result of the stroke-related brain damage. The person may also suffer from depression as he or she adjusts to changes in physical or mental abilities. Depression is common in stroke survivors and needs to be treated.

A person may react with anger, depression, or withdrawal as damage from the stroke changes him or her from an independent person on whom others have leaned for support to a highly dependent person who feels that he or she is a burden to family and friends.

Discussion: How Stroke Affects a Person

- Ask CHWs if they have a friend or relative who has had a stroke and has survived it.
- Ask them to share some of the physical and emotional changes the person experienced as a result of the stroke.
- Ask if any of the changes were permanent, or if the person recovered completely from the stroke.

J. What Is Stroke Rehabilitation?

► Talking point:

To recover from physical and other disabilities that result from stroke damage, a person nearly always needs therapy or rehabilitation (often called rehab). The type of therapy or rehab a person needs depends on the disabilities he or she has.

The four main types of therapy include

- **Physical therapy.** A person who has a problem with movement (for example, cannot walk, cannot move the arms, or cannot keep his or her balance) will need physical therapy.
- **Occupational therapy.** A person who has lost memory or knowledge will need occupational therapy to relearn activities basic to daily living, such as bathing and dressing.
- **Speech therapy.** A person who has difficulty with speech (for example, who cannot move the tongue, lips, or jaw properly to form words) will need speech therapy.
- **Emotional support therapy.** People who have a stroke often become depressed, anxious, frustrated, or angry. They can be helped with “talk therapy” (talking to a mental health care provider or social worker). Depression can also be treated with medicines. We will talk more about this in our session on depression and stress.

The different forms of therapy cannot repair the brain, but they can teach the brain to work in different ways to make up, partially or fully, for brain function that has been lost.

These different types of therapy help the person who has had a stroke become stronger, more physically capable, and more confident.

Activity 2–5: What Community Health Workers Can Do to Help Community Members Who Are at Risk for Stroke or Who Have Had a Stroke

Ask for suggestions and give cues to help CHWs remember the importance of teaching and reminding people to keep their blood pressure under control, to check their blood pressure regularly, to keep medical appointments, to know the warning signs of stroke, and to act in time if someone is having a stroke. Talk about what CHWs can do to help people who are at risk for stroke or who have already had a stroke. Review the handout with the CHWs.

Post-Test Questions:

Circle letters for ALL correct answers. A question may have more than one correct answer.

1. What happens in the two main types of stroke?

- a. A blood vessel bursts in a blood vessel in the brain.
- b. A blood vessel bursts in the heart.
- c. A blood vessel becomes blocked in the brain.
- d. A blood vessel becomes blocked in the heart.

2. Which of the following are warning signs of stroke?

- a. Sudden confusion, trouble speaking or understanding speech.
- b. Sudden, severe headache with no known cause.
- c. Sudden numbness or weakness of the face, arm or leg, especially on one side of the body.
- d. Sudden trouble seeing in one or both eyes.
- e. Sudden trouble walking, dizziness, loss of balance or coordination.

3. Which of the following are risk factors for stroke?

- a. High blood pressure.
- b. Heart disease.
- c. Smoking.
- d. High cholesterol.
- e. Diabetes.

4. If you believe someone is having a stroke what should you do?

- a. Drive them immediately to their doctor's office.
- b. Drive them immediately to the nearest emergency room.
- c. Call 9-1-1 immediately.

5. Rehab after a stroke can help people with:

- a. Problems with walking
- b. Loss of memory about how to dress themselves
- c. Speaking more clearly
- d. Depression

Answers to Test Questions:

1. a,c
2. a,b,c,d,e
3. a,b,c,d,e
4. c
5. a,b,c,d

Risk Factors for Stroke

Activity 2-1

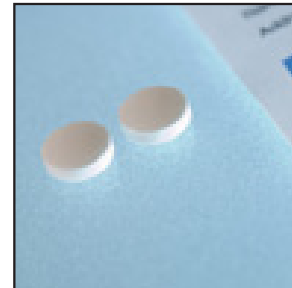
Preventing Stroke is still the best medicine.

The most important treatable conditions linked to stroke are:

Check the risk factors you have—

- **High blood pressure. Treat it!**

Change your habits. Eat healthy, low sodium food, keep a healthy weight, and increase your physical activity to reduce blood pressure. If needed, take medicine as your doctor advises to control your high blood pressure.



- **Heart disease. Manage it!**

Change and keep the heart healthy habits listed above for high blood pressure. Take medicines as your doctor advises to prevent blood clots from forming. Blood clots can travel to the brain and cause strokes.



- **Diabetes or a problem with blood sugar. Control it!**

Change and maintain the heart healthy habits listed above for high blood pressure. Taking insulin and other medicines as your doctor advises can delay complications (medical problems) that increase the risk of stroke.

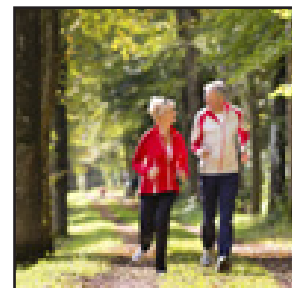
- **Cigarette smoking. Quit!**

Medical treatment can help you quit.



- **Transient ischemic attacks (TIAs). Get help.**

TIAs are small strokes that last only for a few minutes or hours. They should never be ignored and can be treated with medicine or surgery.



What Are the Warning Signs of Stroke?

Activity 2-2

- Sudden numbness or weakness of the face, arm, or leg, especially on one side of the body.
- Sudden confusion, trouble speaking, trouble understanding.
- Sudden trouble seeing in one or both eyes.
- Sudden trouble walking, dizziness, or loss of balance or coordination.
- Sudden severe headache with no known cause.

If you notice one or more of these signs, call 9-1-1 and get to a hospital right away!



Recognizing the Warning Signs of a Stroke

(Role Play)

Activity 2- 2

Role Play 1

Talking point:

You have been visiting Danny for several weeks now. During this visit, he complains of being dizzy and seems confused. Danny's doctor has recently found that Danny has diabetes and high blood pressure that are not under control.

- What would you do in this situation?
- Could Danny be having a stroke?
- How can you tell?

Role play: Ask a person in your group to be Danny and another to be the community health worker.

After the role play, remind the CHWs of the importance of getting a person to a hospital as quickly as possible when she/he shows several signs of stroke. Minutes count!

Role Play 2

Talking point:

You are working at a table at the health fair in your community. Maria comes up and tells you about Rosa, a friend of hers, who has just had a stroke. She says that her friend was lucky because she was with someone who knew the signs of stroke. Maria wants to learn more about stroke so that she will be ready to help someone herself.

- What would you tell her?
- What are the warnings signs of stroke?
- Why must you call 9-1-1 immediately if you suspect a stroke?

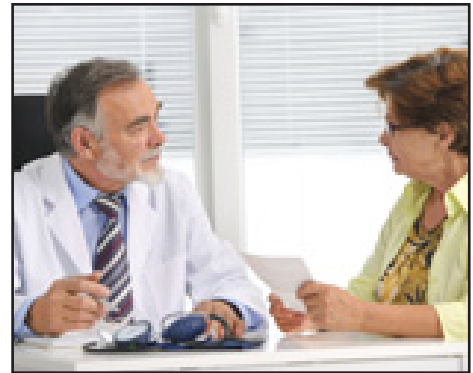


Role play: Ask a person in your group to be Maria and another person to be the community health worker. Ask the CHW to educate Maria about the warning signs of stroke and the need to call 9-1-1.

Tips for Taking Medicine to Prevent First or Repeated Stroke

Activity 2–3

- Make sure you take medicine every day, not only on the days when you don't feel well.
- Tell the doctor the names of all other medicines, herbs, or supplements you take. Bring everything with you when you have a doctor's appointment (or bring a list that includes the name of the medicines, the dose, and how often you take it).
- Tell the doctor or other members of your care team right away if the medicine makes you feel strange or sick. Ask the doctor about changing the dosage or switching to another type of medicine.
- Refill your medicine before you run out.
- Have your blood pressure checked often to see if the medicine is working.
- Don't stop taking your medicine if your blood pressure or clotting time is OK. That means the medicine is working.



Questions to Ask the Doctor

When the doctor gives you medicine to prevent stroke, ask:

Name of medicine(s): _____

Amount of medicine to take: _____

When to take it: _____

What to eat or drink with it: _____

What other medicine is OK to take at the same time: _____

If problems happen, call this number immediately: _____

Stroke: What Happens at the Hospital?

Activity 2-4

If someone is having or has had a stroke, it is important to get medical help right away.

Survival and chances for a good recovery depend largely on how quickly the person gets treatment and how fast normal blood flow returns to the brain.

The longer the brain, or part of the brain, is without blood, the worse the outcome of the stroke will be.

The doctor at the hospital must decide first if a person has really had a stroke. To find out if it is a stroke, the doctor

- Asks about the person's symptoms (what they feel).
- Asks about his or her medical history.
- Does different tests to get an idea of what is happening in the brain. Tests will tell if there is bleeding or if a clot is blocking the flow of blood.

To find the cause of the stroke and to give the proper treatment, the doctor will order one or more of the tests:

- **Computed tomography (CAT or CT)** scan is a key test. It takes a picture of the brain. It's usually one of the first tests given to patients who may have had a stroke. CT scanning takes from 20 minutes to an hour to complete. Test results give information about the cause of the stroke and the location and seriousness of brain injury.
- **Magnetic resonance imaging (MRI)** is a more detailed test than a CT and is used to find small, deep injuries.
- **Blood flow** tests find blockages in blood vessels.

Some strokes are treated as soon as possible with clot-busting medicines that dissolve the blood clot. Other medicines may be given to lower the blood pressure. Treatment may include surgery.



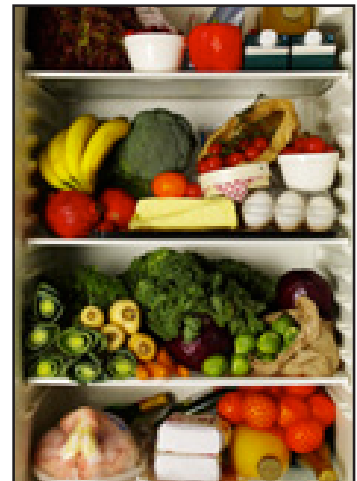
Ways to Support People in Their Health Care Needs:

- Help community members understand how important it is to regularly taking their blood pressure medicine to prevent a stroke.
- Help community members understand how important it is to regularly taking their other medicines (blood pressure and cholesterol-lowering medicines, diabetes medicine, and other medicines) to prevent a stroke.
- Teach everyone the warning signs of stroke.
- Teach people that stroke is a medical emergency and that they should call 9-1-1 immediately.



Ways to Help People Make Better Lifestyle Choices:

- Teach people to stop smoking, get regular physical activity, lose weight (if they are overweight), and drink no more than one alcoholic drink a day for women and no more than two for men. One drink is 1 oz. of hard liquor, or 4 oz. of wine, or 12 oz. of beer.
- Help people choose a diet with plenty of vegetables, fruits, and grain products.
- Help people choose a diet low in fat, saturated fat, trans fat, and cholesterol.
- Encourage people to eat less fatty food and to decrease the foods they fry.
- Help community members learn how to reduce their intake of sodium.
- Learn and teach relaxation exercises.



What Community Health Workers Can Do to Help Community Members Who Already Have Had a Stroke (with Program Support)

All of the suggestions above for people at risk for stroke apply plus the following:

- Link patients to follow-up care for (stroke rehabilitation) for vision, memory, speech, or movement problems.
- Link patients to community resources if they need help paying for their medicines or other supplies, equipment, and services.
- Support people who are worried about their disability and dependence on others.
- Support caregivers by providing information, linking them to caregiver resources, and helping them communicate with members of the health care team.
- Encourage stroke survivors and their caretakers to get help for managing stress and depression.
- Help community members learn how to keep track of the medicine they are taking.
- Help community members understand the importance of regularly taking their other medications (such as blood thinners, blood pressure and cholesterol-lowering medicines, and diabetes medicine) in order to prevent another stroke.



Objectives

By the end of this session, community health workers will be able to

- Name the risk factors for heart attack.
- Describe the warning signs of a heart attack.
- Describe how a heart attack is diagnosed.
- Describe how a heart attack is treated.
- Discuss at least three ways a CHW can help reduce the number of new heart attacks in the community.

Activities

- 3–1: What Is Heart Attack?
- 3–2: Reducing the Risk of a Heart Attack: A Case Study
- 3–3: A. Don't Take a Chance with a Heart Attack: Know the Facts and Act Fast
B. Heart Attack: Know the Symptoms. Take Action. Wallet Card
C. Learn What a Heart Attack Feels Like - It could Save Your Life
- 3–4: What Prevents People from Getting Medical Help Quickly?
How can CHWs Make a Difference?
- 3–5: Life After Heart Attack
- 3–6: Heart Attack Survivors Shares Their Experience
- 3–7: What Community Health Workers Can Do to Help Community Members Who are at Risk for Heart Attack or Who Have Already Had a Heart Attack

Chapter Outline

- A. What Is a Heart Attack?
- B. What are the Risk Factors for Heart Attack?
- C. How to Prevent a Heart Attack
- D. What Are the Warning Signs of a Heart Attack?
- E. What to Do in Case of a Heart Attack
- F. Why Is Immediate Medical Attention Important?
- G. How Is a Heart Attack Diagnosed?
- H. How Is a Heart Attack Treated?
- I. What Is Angina?
- J. Don't Delay!
- K. Life after a Heart Attack
- L. What Can I do as a CHW?

Pretest Questions

Circle the letters for ALL correct answers in the questions.
A question may have more than one correct answer.

1. Which of the following are risk factors for heart attack?

- a. Smoking.
- b. High levels of blood cholesterol.
- c. Diabetes.
- d. High blood pressure.

2. Which of the following are warning signs of a heart attack?

- a. Shortness of breath that is not related to exercise and does not stop with rest.
- b. Indigestion.
- c. Sudden blindness.
- d. Cold sweats.
- e. Feeling weak, light-headed, or faint.

3. What should you do if you think you are having a heart attack?

- a. Drive yourself to the hospital.
- b. Call 9-1-1 immediately or tell someone else to call 9-1-1.
- c. Decide to wait and see if the pain goes away on its own.
- d. Plan to make an appointment with your doctor.

► Talking Point

Each year more than 1 million people in the United States have a heart attack and more than one-third of them die.

More than half of those who die will die before reaching the hospital.

Heart attacks are a leading killer of both men and women in the United States.

The good news is that the chances of surviving a heart attack are greater if people get immediate medical help. There is very good medical treatment for heart attacks. These treatments can save lives and prevent disabilities.

As a community health worker, you play an important role in educating your community about the warning signs of a heart attack, the importance of getting immediate medical help, and steps to surviving a heart attack.

A. What Is a Heart Attack?**► Talking Points**

A heart attack happens when the blood supply to a part of the heart is stopped or dangerously reduced.

In the first chapter, we learned how the heart works. We know that the blood vessels that supply the heart muscle with the blood it needs are called coronary arteries. Coronary artery disease is the main cause of heart attack. When one or more arteries become diseased by the build-up of plaque, blood flow to the heart is reduced. The plaque can clog an artery slowly, or pieces of plaque may break away and cause a blood clot to form suddenly. If a piece of plaque or a blood clot blocks a blood vessel that feeds the heart, it can cause a heart attack.

Activity 3–1: What is a Heart Attack? Review Activity Handout 3–1: What is a Heart Attack? Answer any questions the CHWs may have.

► Talking Points

If the blood supply to the heart is cut off for more than a few minutes, the cells of the heart muscle begin to die and the heart rhythm may change and become irregular.

As the heart muscle cells die or the heart rhythm changes, the heart may not be able to pump enough blood or any blood at all. The part of the heart that depends on the blocked artery for its blood and oxygen is damaged and cannot work right.

This lack of blood flow can kill a person or can cause heart damage. The damage may cause a person to be disabled (disability makes it hard to do some or all of the basic tasks of daily life). The outcome depends on how much of the heart is damaged. The amount of damage depends on how quickly a person gets medical treatment to get blood flow restored.

Timing is important! It is important to seek treatment for a heart attack immediately. The sooner a heart attack is treated, the greater a person's chances of surviving. Sudden cardiac arrest—the stopping of the heart—happens when the heart stops completely. Unless treated, a person whose heart has stopped can die within minutes.

B. What Are the Risk Factors for Heart Attack?

► Talking Points

Remember, a risk factor is a condition or behavior that increases a person's chance of having a heart attack. These are some of the factors that can increase the chance of having a heart attack:

- A prior heart attack
- Family history of early heart attack
 - Father or brother who has a heart attack before age 55
 - Mother or sister who has a heart attack before age 65
- Family history of stroke, diabetes, obesity
- Increasing age
- Diabetes
- High LDL, or “bad” cholesterol, high triglycerides, and or low HDL or “good” cholesterol
- High blood pressure, or hypertension
- Unhealthy diet
- Smoking tobacco
- Being overweight or obese
- Not being physical active
- High levels of stress

C. How to Prevent a Heart Attack

► Talking Points

Having one or more risk factors does not mean a person will have a heart attack, but it does increase the chances.

Making the same life-style changes to reduce the risk of heart disease will also reduce the risk of heart attack. If people make changes such as eating a healthy diet, being more physically active, stopping smoking, and keeping a healthy weight, they can prevent or control the most risk factors.

It is also important that people keep their blood glucose at normal levels.

Limit the amount of alcohol you drink (no more than one drink each day for women and no more than two for men. 1 drink is 1 oz of hard liquor, or 4 ounces of wine, or 12 ounces of beer.

If your doctor has advised you take medicines to control high blood cholesterol, high blood pressure, or diabetes, taking these medicines as advised will greatly reduce your risk of heart attack.

Activity 3-2 Reducing the Risk of a Heart Attack: A Case Study

Pass out copies of the Activity Handout 3–2. Have the CHWs form small groups of 3 or 4 members. Allow each group to come up with answers to the questions. Then ask each group to report out their answers to the questions. Encourage the CHWs to talk about their answers, especially if their group's answers differ from others.

D. What Are the Warning Signs of a Heart Attack?

► Talking Points

The five major warning signs of a heart attack are

- Pain or discomfort in the jaw, neck, or back.
- Feeling weak, light-headed, or faint.
- Chest pain or discomfort.
- Pain or discomfort in arms or shoulder.
- Shortness of breath.

If you think that you or someone you know is having a heart attack, you should call 9–1–1 immediately!

The warning signs we have talked about are the most common ones and most people will have more than one of these signs. For example, many people who have chest pain will also have shortness of breath. Also, a person might have arm pain, sweating, and nausea at the same time.

The most common warning signs, in both woman and men, are chest pain or discomfort. But women also are somewhat more likely to have shortness of breath, nausea and vomiting, unusual tiredness (sometimes for days), and pain the in the back, shoulders, and jaw.

Heart attacks can start slowly and cause only mild pain or discomfort. Warning signs can be mild or more intense and sudden. Warning signs also may come and go over several hours.

Some people may not have any clear warning signs at all, and the only way they learn that they have had a heart attack is through later medical testing. People who have high blood glucose (diabetes) may have no warning signs or very mild ones.

If you feel that you are having a heart attack, you should insist on getting medical help immediately, even if others do not believe you. If you are wrong about the heart attack, you may be a bit embarrassed, but if you are right, you'll be alive!

It's important to recognize the warning signs of a heart attack and to act fast to get medical help.

Activity 3–A,B,C Review the resources with the CHWs and let them talk about their concerns. Stress the importance of not ignoring warning signs. Explain that people may have any combination of the warning signs. Stress that not all heart attacks begin with the sudden, crushing chest pain often seen on TV or the movies.

Activity 3–3 A: Don't Take a Chance with a Heart Attack: Know the Facts and Act Fast Learn What a Heart Attack Feels Like - It could Save Your Life. This fact sheet tells you about heart attack signs and what to do if you are having any of these signs.
http://www.nhlbi.nih.gov/health/public/heart/mi/heart_attack_fs_en.pdf

Activity 3–3 B: Learn What a Heart Attack Feels Like - It could Save Your Life With this easy-to-read 4-page fact sheet, you can learn the warning signs of a heart attack, and know the single most important thing you can do to save a life: call 9-1-1 immediately for emergency medical care.

http://www.nhlbi.nih.gov/files/docs/public/heart/heart_attack_low-lit_fs.pdf

Activity 3–3C: Heart Attack: Know the Symptoms. Take Action. Wallet Card This updated pocket-sized card for wallet or purse gives brief reminders of heart attack warning signs, steps to take, and the importance of acting quickly. It has space to write in current medicines and key phone numbers. These are good to give community members to fill out. These cards will be helpful for emergency care providers like EMTs.

<http://www.nhlbi.nih.gov/health/resources/heart/heart-attack-wallet-card.htm>

E. What to Do in Case of a Heart Attack?

► Talking Points

If you think you or someone else is having a heart attack, call 9-1-1 immediately. Don't wait!

Calling 9-1-1 for an ambulance is the safest and best way to get to the hospital because

- Emergency medical services (also called EMS) can check how you are doing and start life-saving medicines and other treatments right away—even before you arrive at the hospital.
- Your heart may stop beating during a heart attack. This condition is called sudden cardiac arrest. Emergency medical technicians (EMTs) have the training and equipment needed to treat you if this happens.
- Heart attack patients who arrive by ambulance tend to receive faster treatment on their arrival at the hospital than those who are driven to the hospital by others.

If for some reason, you are having warning signs of a heart attack and you cannot call 9-1-1 or an ambulance cannot reach you, have someone else drive

you to meet the ambulance or drive you to the hospital at once. Never drive yourself to the hospital, unless you have absolutely no other choice.

If someone who appears to be having a heart attack is not awake, does not know what is going on, or stops breathing, someone should begin cardiopulmonary resuscitation (CPR).

F. Why Is Immediate Medical Attention Important?

► Talking Points

A heart attack is a medical emergency!!

The chances of your survival (staying alive) after a heart attack are greater if you get medical treatment immediately. Minutes matter. Don't wait!

The chances of surviving the heart attack and limiting the damage to the heart are best if a person receives treatment within the first hour after a heart attack. The longer that the treatment is delayed the worse the damage to the heart. Each minute that treatment is delayed is a minute the heart is without enough oxygen.

People who have a heart attack need emergency care such as cardiopulmonary resuscitation (CPR) or electrical shock (defibrillation). That's why you need to act quickly once you notice the warning signs heart attack.

Cardiopulmonary Resuscitation (CPR)

► Talking Points

Cardiopulmonary Resuscitation (CPR) involves mouth-to-mouth respiration (breathing into another's person's mouth) and chest compression (pressing on another's person's chest at a steady pace).

CPR provides oxygenated blood to the brain and heart and keeps them alive.

The American Heart Association says that if CPR is given immediately to a person who is not breathing, it can double a heart attack victim's chance of survival.

Automated External Defibrillator (AED)

► Talking Points

An AED (automated external defibrillator) is a medical device designed to "shock" the heart of a person who is in cardiac arrest (who has no pulse and is not breathing) back into a normal rhythm. Timing is very important. *For every minute without immediate CPR and defibrillation, the odds of survival decrease by 7% to 10%.*

You can find AED's in public and/or private places where large numbers of people gather such as airports, sports stadiums, schools, or places where people who are at high risk for heart attacks live, such as nursing homes.

For more information contact your local American Heart Association office.

CHWs should become certified in CPR and in the use of an AED!

Note to trainer: Arrange for the CHWs to get training in cardiopulmonary resuscitation (CPR) and in the use of the automated external defibrillator (AED).

Clot-Busting Medicines

► Talking Points

There are many “clot-busting” medicines that can quickly stop a heart attack by restoring the flow of blood to the heart. A reason that it's so important to call 9-1-1 (or the local emergency number) immediately is that the EMS staff can give medicines and tests to help stop a heart attack.

Time is an important factor. Getting immediate medical attention increases the kinds of treatment that can be given and decreases the amount of damage to the heart muscle.

G. How Is a Heart Attack Diagnosed?

► Talking Points

When a person arrives at the hospital with heart attack warning signs, the emergency room staff goes into action. Diagnosing (finding out) a heart attack usually includes four basic steps

1. Review of a person's medical history information, including risk factors.
2. A physical exam.
3. An electrocardiogram (EKG or ECG) to test for damage to the heart.
4. Blood tests to detect abnormal levels of certain substances (enzymes) in the blood that can show that the heart has been damaged.

H. How Is a Heart Attack Treated?

► Talking Points

If the person having a heart attack gets to an emergency room fast enough, the first treatment given will be medicines that dissolve clots. To work best these medicines need to be given within three hours of a heart attack. If this treatment isn't given or doesn't work, other procedures (methods) may be needed.

The two most common types of methods are

- Coronary artery bypass
 - Sometimes doctors use emergency coronary artery bypass surgery following a person’s heart attack. In bypass surgery, doctors cut and sew veins or arteries to a place past the blockage.
- Coronary angioplasty
 - During coronary angioplasty doctors pass a thin tube through an artery until it reaches the blocked artery in the heart. A small balloon attached to the end of the tube is then inflated to open the blocked artery.
 - Sometimes a small wire mesh tube is put in place to hold the artery open. This tube is called a stent.

I. What Is Angina?

► Talking Points

Angina is chest pain or discomfort that a person has if the heart doesn’t get enough blood.

If the heart is not receiving enough blood then it is not getting the oxygen and nutrients it needs. A person usually has angina because one or more of the heart’s arteries is narrowed or blocked.

Usually angina is felt as uncomfortable pressure, fullness, squeezing or pain in the center of the chest. A person may also feel the discomfort in the neck, jaw, shoulder, back or arm. These feelings are also signs of a heart attack, but if it’s angina, the pain or discomfort will last only a few moments before going away. If they last longer, it could be a heart attack.

A person may have angina during physical exercise, while feeling strong emotions, or when in extreme temperatures. For example, running to catch a bus, could trigger an attack of angina, while walking might not.

Angina is a sign that a person is at a higher risk of heart attack and should not be ignored!

J. Don’t Delay!

► Talking Points

As we talked about earlier, the chances of surviving a heart attack and limiting the damage to the heart are best if people get treated as soon as possible. Within one hour of having warning signs is best.

Sadly, most people wait several hours, or even days before seeking medical attention.

The longer the delay in getting treatment, the more damage the heart is likely to have. Quick reactions to signs of a heart attack can greatly improve the chance of surviving the heart attack.

If you or someone else is having a heart attack, don't wait! Call 9-1-1!

If any heart attack sign stops completely in less than 5 minutes, you should still call your doctor or nurse.

Activity 3-4: What Prevents People from Getting Medical Help Fast? How can CHWs Make a Difference? Ask the CHWs to share some reasons or barriers that they know prevents people from getting medical help fast for the warning signs of a heart attack.

Possible answers: People often take a wait-and-see approach, delaying because they

- Think what they are feeling is heartburn.
- Don't know the warning signs.
- Don't want to be a bother to others.
- Decide to wait and see if the pain goes away on its own.
- Are afraid of being embarrassed if it was a false alarm.
- Think only elderly people have heart attacks.
- Are hoping it isn't a heart attack.
- Plan to make an appointment with the doctor.
- Have limited or no medical insurance.

Ask the CHWs to think about how they can help people in the community to overcome these barriers.

What resources do they need to help their community members?

How can they help community members to prepare in case they or someone else has the warning signs of heart attack?

Possible answers may include

CHWs can talk with people at risk and their families about

- Risk of heart attack.
- Recognizing warning signs.
- Right action steps to take for rapid action.
- Medicine their doctor told them to take when warning signs occur.
- Risk in delaying medical treatment.
- Remembering to call 9-1-1 immediately.

CHWs can ask community members about

- Their feelings and beliefs about heart attack.
- Problems they have with being aware of warning signs and how to respond to warning signs.
- Their personal and family experience with medical treatment.

CHWs can help community members make a plan

- Help people at risk and their family members make a plan for exactly what to do in case of heart attack warning signs and ask them to think of friends and family members who can be there for them.
- Encourage patients and their family members, neighbors, and friends to know about the plan.
- The plan should list the steps you or your family members will take if someone has a heart attack. The plan needs to have information about the medicines you are taking and medicines you can't take because you are allergic. It should have important phone numbers, including those of your doctor and person who should be contacted if you go to the hospital.

K. Life after a Heart Attack

If you've had a heart attack, your heart may still be damaged. This could affect your heart's rhythm, pumping action, and blood circulation.

You may also be at risk for another heart attack or conditions such as stroke, kidney problems, and arterial disease. But, there are steps you can take to lower your chances of having future health problems.

Your doctor may recommend cardiac rehabilitation (cardiac rehab), which is a program that can help you make lifestyle changes to improve your heart health and quality of life. These changes may include taking medicines, changing what you eat, increasing your physical activity, stopping smoking, and managing stress. Also, be sure to talk with your doctor about everyday activities. He or she may want you to limit work, travel, sex, or exercise.

► Talking Points

A positive attitude and outlook are important when recovering from a heart attack or heart surgery. CHWs can work with resources within the community to make sure that community members get the full support they need during their recovery.

Stress that CHWs should remind those who have had a heart attack that rehabilitation can do a lot to help them feel better faster, get back to normal activities, and reduce future chances of heart trouble.

Discussion

Life After a Heart Attack. Ask the CHWs how they think they would feel if they had recently suffered a heart attack. Possible responses include

Scared: uncertain of the future (fearful of loss of income; worried about how bills will be paid).

Overwhelmed: feelings that they have too many things to remember or changes to make in their life.

Helpless: feeling that they can't do anything to control their heart health.

Angry that it happened to them.

Despair over the loss of good health.

Relieved at having a chance to start over.

Thankful for having survived.

When referring to their responses ask them which ones they feel that they can help others with in their role as community health workers. Then ask them for specific suggestions for how they can help a person who is recovering from a heart attack cope with these same reactions. Possible responses include

Educate both the person who has had the heart attack and his or her family. Help them understand medical terms and methods of treatment. Use hand outs and other resources from this course to help them change unhealthy behaviors.

Help develop a support system for the person. Find information on support groups in your community. Involve the person's family and friends in his or her education and counseling sessions. Provide the person with heart attack success stories. Check out the "Heart Attack Personal Stories" section of the American Heart Association Web site: www.americanheart.org

Activity 3–6: Heart Attack Survivors Shares Their Experiences.

If possible, invite one or more persons who have had a heart attack to share his or her experience with the class. Allow time for questions and answers. Highlight the importance of a strong, positive attitude in recovering from a heart attack and leading a life that is heart healthy. It is important that people who have heart disease learn to live with it. They need to make lifestyle changes to reduce the risk that heart disease has for their overall health. At the same time, however, they should not make heart disease the central focus of their lives.

L. What Can I do as a CHW?

Activity 3–7: What Community Health Workers Can Do to Help Community Members Who Are at Risk for Heart Attack or Who Have Already Had a Heart Attack? Ask the CHWs what they think they can do to help people who are at risk for heart attack. Then ask what they think they can do to help people who have already had a heart attack.

Ask for suggestions and give cues to help the CHWs remember the importance of teaching and reminding people to keep their cholesterol under control by taking cholesterol-lowering medicine regularly, keeping medical appointments, knowing the warning signs of heart attack and acting in time, and calling 9-1-1 for immediate medical help.

Posttest Questions

Circle the letters for ALL correct answers in the questions. A question may have more than one correct answer.

1. Which of the following are risk factors for heart attack?

- a. Smoking.
- b. Abnormal levels of blood cholesterol.
- c. Diabetes.
- d. High blood pressure.

2. Which of the following are warning signs of a heart attack?

- a. Shortness of breath that is not related to exercise and does not stop with rest.
- b. Indigestion.
- c. Sudden blindness.
- d. Cold sweats.
- e. Feeling weak, light-headed, or faint.

3. What should you do if you think you are having a heart attack?

- a. Drive yourself to the hospital.
- b. Call 9-1-1 immediately or tell someone else to call 9-1-1.
- c. Decide to wait and see if the pain goes away on its own.
- d. Plan to make an appointment with your doctor.

Correct test answers:

1. a,b,c,d

2. a,d,e

3. b

Heart With Muscle Damage and a Blocked Artery

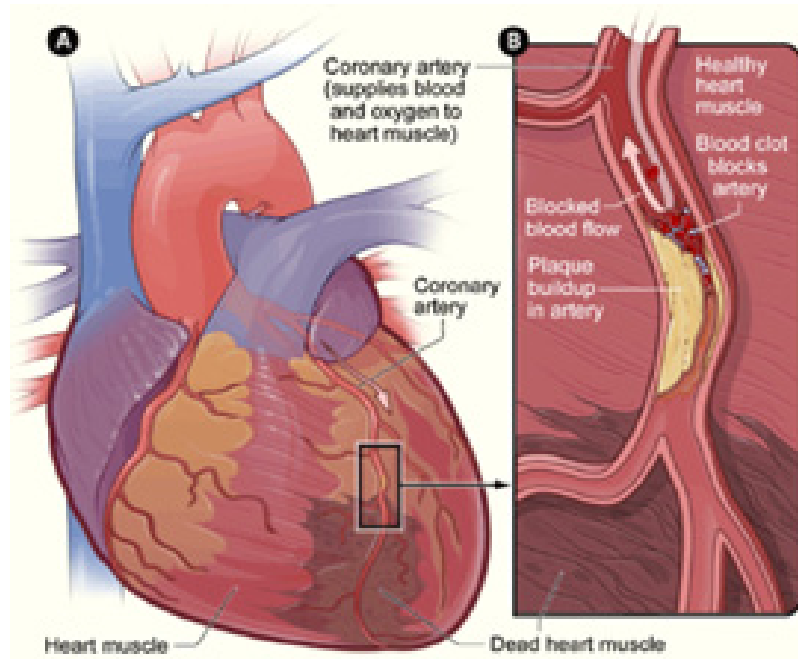


Figure A shows a heart with dead heart muscle caused by a heart attack. Figure B is a cross-section of a coronary artery with plaque buildup and a blood clot

Source: <http://www.nhlbi.nih.gov/health/health-topics/topics/heartattack/>

Also, view an animation of a Heart Attack

http://watchlearnlive.heart.org/CVML_Player.php?moduleSelect=hrtatk

Reducing the Risk of a Heart Attack: A Case Study

Activity 3-2

You have been doing follow-up visits with Marcia, a 55-year-old woman who recently suffered a heart attack. Her 34-year-old daughter, Melissa, cares for her. Melissa is overweight and she smokes. During one of your visits, Melissa tells you she feels “doomed” and she is certain she will have a heart attack at an early age like her mother and her grandfather, who died at age 52 following a heart attack.

Discussion Questions

1. Should Melissa be worried about her heart health? Why or why not?
2. Why do you think she feels doomed? What can you, as the community health worker, do to help her feel better about her situation and her health?
3. Is Melissa at risk for heart disease? Why or why not?
4. How would you work with Melissa to help her reduce her risk for heart disease? What changes could she make in her daily life to protect her health?
5. How would you follow up with Melissa?



Heart Attack Signs and Symptoms

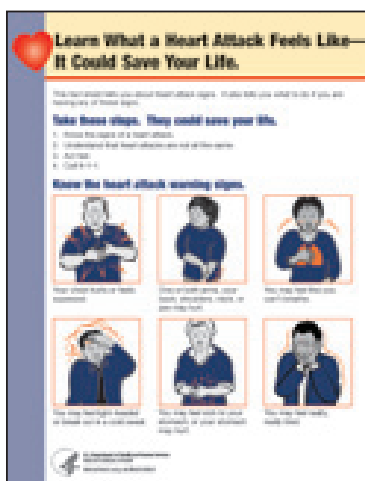
Activity 3-3



Activity 3–3 A: Don't Take a Chance with a Heart Attack: Know the Facts and Act Fast

This fact sheet tells you about heart attack signs and what to do if you are having any of these signs.

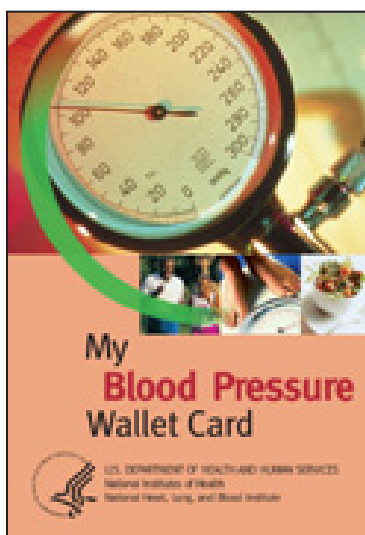
http://www.nhlbi.nih.gov/health/public/heart/mi/heart_attack_low-lit_fs.pdf



Activity 3–3 B: Learn What a Heart Attack Feels Like - It could Save Your Life

With this easy-to-read 4-page fact sheet, you can learn the warning signs of a heart attack, and know the single most important thing you can do to save a life: call 9-1-1 immediately for emergency medical care.

http://www.nhlbi.nih.gov/files/docs/public/heart/heart_attack_fs_en.pdf



Activity 3–3C: Heart Attack: Know the Symptoms. Take Action. Wallet Card

This updated pocket-sized card for wallet or purse gives brief reminders of heart attack warning signs, steps to take, and the importance of acting quickly. It has space to write in current medicines and key phone numbers as an easy reference for both the patient and emergency care providers. These are good to give community members.

http://www.nhlbi.nih.gov/files/docs/public/heart/heart_attack_wallet_card.pdf

What Prevents People from Getting Medical Help Quickly? How can CHWs Make a Difference?

Activity 3-4

Please share some reasons or barriers that you know prevents people in your community from getting medical help for the warning signs of a heart attack.

How can you help people in the community overcome these barriers?

What resources do you need to help your community members?

How can you help them make a plan for exactly what to do in case of heart attack warning signs and ask them to think of friends and family members who they will be able to rely on to get them help.



After Heart Attack Survivors Shares Their Experience

Activity 3–5

What have you learned from the people who have shared their experiences with heart attack?

What questions do you have?

How will this information help you as you talk to community members about heart attacks?



What Community Health Workers Can Do to Help Community Members Who Are at Risk for Heart Attack (with Program Support)

Activity 3–6

Supporting People in Their Health Care Needs

- Help community members understand how important it is to regularly take their medications (medicines for lowering blood pressure and cholesterol levels, medicines for diabetes, and other medicines) to prevent a heart attack.
- Teach everyone the warning signs of a heart attack.
- Teach everyone that heart attack is a medical emergency and that if they or someone else is having the signs of a heart attack, they should call 9-1-1 immediately.
- Learn CPR (cardiopulmonary resuscitation), and the use of AEDs (automated external defibrillators), and encourage community members to learn them as well.
- Help people make a plan for exactly what to do in case of heart attack warning signs and ask them to think of friends and family members who they will be able to rely on for help.



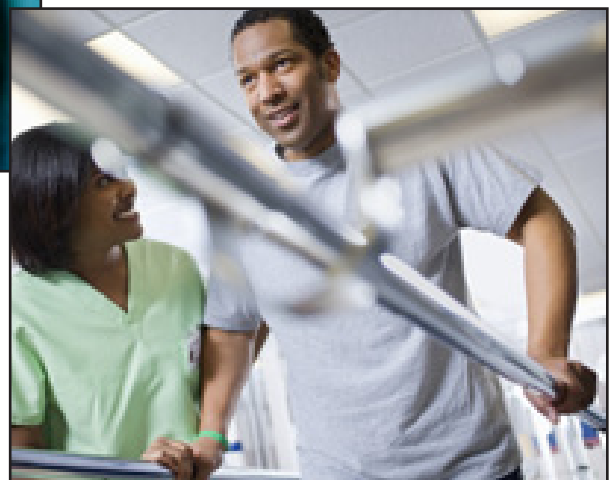
Ways to Help People Make Better Lifestyle Choices:

- Teach people to get regular physical activity, eat healthy foods, stop smoking, lose weight (if they are overweight), and drink no more than one alcoholic drink a day for women and no more than two for men.



What Community Health Workers Can Do to Help Community Members Who Have Already Had a Heart Attack (with Program Support)

- All of the suggestions for people at risk for heart attack apply to those who have already had a heart attack, plus the following
- Help the heart attack survivor understand what he or she needs to do to stay as healthy as possible.
- Help community members get follow-up rehab services after a heart attack.
- Help people understand why it is important to regularly take their heart medicines and other medicines (for diabetes, high blood pressure, high cholesterol, etc.) in order to prevent another heart attack.
- Help people learn how to keep track of the medicines they are taking. Suggest that they write down when they take their medicines or that they use a pill box container labeled to show the days and the times of the day.
- Help community members find affordable medicines.
- Support caregivers by providing information, by linking them to caregiver resources, and by helping them communicate with members of the healthcare team.
- Learn and teach relaxation exercises, such as deep breathing.
- Encourage heart attack survivors and their caretakers to get help for managing stress and depression.



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Objectives

By the end of this session, community health workers will be able to

- Explain the cause of heart failure.
- Describe the signs for heart failure.
- Describe tests used for diagnosing heart failure.
- Explain how heart failure is treated.
- Describe the signs of stress.
- Describe how smoking affects the heart.

Activities

- 4–1: Signs of Heart Failure
- 4–2: Tests for Diagnosing Heart Failure
- 4–3: Taking Your Medicine
- 4–4: Walking For Health
- 4–5: Stress and Your Heart
- 4–6A: What CHWs Can Do to Help Community Members Who Are at Risk for Heart Failure or Who Already Have Heart Failure
- 4–6 B: Caring for Your Own Health and Your Heart

Chapter Outline

- A. What Is Heart Failure?
- B. What Causes Heart Failure?
- C. What Are the Warning Signs?
- D. How Is Heart Failure Diagnosed?
- E. How Is Heart Failure Treated?
- F. Taking Medicine for Heart Failure
- G. Diet, Fluids, and Weight Gain
- H. Remaining Active with Heart Failure
- I. Stress
- J. Smoking

Pretest Questions

Circle the letters for ALL the correct answers in the questions. A question may have more than one correct answer.

1. What are the signs of heart failure?

- a. Swollen feet and ankles.
- b. A racing heartbeat.
- c. Shortness of breath.
- d. Repeated coughing.

2. Which are good lifestyle changes for heart failure?

- a. Losing weight, if overweight.
- b. Selecting low-sodium foods to eat.
- c. Stop smoking.
- d. Becoming totally inactive.

3. What should you do about your medicine for heart failure?

- a. Stop taking it when you feel better.
- b. Tell your doctor about medicines you buy at the drugstore without a prescription.
- c. When you go on a trip leave your medicines at home.
- d. Take you medicines exactly as prescribed.

► Talking Points:

Five million Americans live with heart failure today.

In fact, it's one of the most common reasons people 65 and older go into the hospital.

Heart failure does not mean the heart has failed. It does mean the heart is not working well, but a person can live for many years with this condition.

But we can prevent heart failure and also treat it.

CHWs can teach those who are at risk for heart failure that it can take years for it to develop and that making changes in their lifestyle can prevent it.

CHWs can help people with heart failure learn to live more comfortably by teaching them how important it is to get good medical care, follow their doctor's advice, and follow a good diet and physical activity plan.

You can help people in your community know the signs of heart failure and what to do about them.

A. What Is Heart Failure?

► Talking Points:

Remember that we talked about how the heart works in the last session?

The heart pumps blood carrying oxygen and nutrients to all parts of the body.

When a person has heart failure the heart does not pump blood as well as it should. Blood moves more slowly through the body and less oxygen and nutrients reach the body and the brain. This results in fatigue and shortness of breath. Everyday activities such as walking, climbing stairs or carrying groceries can become harder.

Also, when the heart pumps blood more slowly the blood can back up into the blood vessels around the lungs and leak into the lungs.

Fluid may build up in the lungs and other organs or tissues in the body. The fluid causes congestion and makes it hard to breathe.

People with heart failure can develop swelling in the feet, ankles, legs, or stomach and can suddenly gain weight. This is why people sometimes call it "congestive heart failure."

B. What Causes Heart Failure?

► Talking Points:

Heart failure can have many causes, but the most common causes are

- Narrowing or blockage of the vessels that supply blood to the heart muscle (coronary artery disease).
- Heart attack, which causes scar tissue that weakens the heart and keeps it from working as well.
- High blood pressure, which makes the muscles in the heart thicken so that the heart does not pump as well and must work harder.
- Damaged heart valves, which makes some blood move through the heart in the wrong direction, resulting in an enlarged heart that does not pump as well.
- Diseases or infection of the heart muscle itself.
- Defects of the heart from birth.
- Infection of the heart or heart valves.
- Serious lung infection.
- Diabetes.
- Thyroid problems.
- Sleep apnea (gaps in breathing).

C. What Are the Warning Signs?

► Talking Points:

If people have heart failure, chances are they have already made a trip to the emergency room, or at least spent some time in the hospital. They can decrease the chances of another hospital stay by **calling their doctors right away** if any of these warning signs appear

- Increased swelling of feet, ankles, legs, and abdomen (stomach).
- Pain in the abdomen.
- Sudden weight gain (2 or more pounds in one day, five or more pounds in one week, or whatever amount your doctor tells you to report).
- Shortness of breath (a feeling of not getting enough air) when you are active, and while resting, and sleeping.

- Trouble sleeping (waking up short of breath, using more pillows).
- Weakness or tiring very easily.
- Confusion or can't think clearly.
- Repeated, dry cough, especially when they are lying down.
- Coughing or wheezing when they are active.
- Cough up pink or bloody mucus.
- Lack of appetite or nausea.
- Faster heart beat (may feel like the heart is racing).

Activity 4–1: What Is Heart Failure? Ask the CHWs about their experience with people who have heart failure. What did they notice? Do they remember how these people felt?

Review Activity Handout 4–1. Stress the importance of knowing the signs of heart failure. Tell the CHWs that if someone they know has one or more signs, they should strongly encourage this person to call his or her doctor right away. CHWs can help the person arrange transportation to the doctor's office, if it is needed.

See an animation of heart failure at http://watchlearnlive.heart.org/CVML_Player.php?moduleSelect=hrtflr

D. How Is Heart Failure Diagnosed?

► Talking Points:

- The doctor will ask about your medical history and does a physical exam (listen to your heart and lungs, weigh you, and take your blood pressure). The doctor may want to do some of the following tests
- Chest X-ray to see the condition of the heart (normal or enlarged) and lungs (congestion).
- Blood tests to check for problems in the liver and kidney that might be caused by heart failure.
- Electrocardiogram (ECG) to check how thick the heart muscle is and how well the heart pumps blood.
- Echocardiography (ECG) checks the electrical activity (rhythm) of your heart.

- MUGA scan to check how well the heart is working and is pumping blood.
- Cardiac catheterization to look for blockages and damage of the coronary arteries and blood flow.

Activity 4–2: Tests for Diagnosing Heart Failure Ask the CHWs how members of their families or other community members usually react when they are told they will need medical tests. Review the activity handout with the CHWs. CHWs can use this handout to help ease the fears of someone who has been diagnosed with heart failure and must have one or more of these tests.

E. How Is Heart Failure Treated?

► Talking Points:

Heart failure cannot be completely cured, but it can be treated. Treatment can keep people feeling good and leading productive lives, often for many years.

To treat heart failure, a doctor usually prescribes medicine and will recommend rest. It's important that people take medicines the way their doctor or nurse advises them. Also, people need to weigh themselves every day to see if they are holding onto extra fluid in their bodies.

There are medicines that can treat mild or moderate heart failure, but in severe cases surgery might be needed, or even a heart transplant.

But it is very important for a person, who has heart failure, to carefully manage it by making lifestyle changes, such as

- Follow a low-sodium and low-fat eating plan, such as the DASH eating plan. <http://www.nhlbi.nih.gov/health/health-topics/topics/dash/>
- Get regular, mild physical activity.
- Stop smoking.
- Lose weight, if overweight.
- Avoid drinking alcohol.
- Avoid or limit caffeine or have de-café (coffee, tea, colas).
- Ask the doctor how much liquids they can drink a day and if they should keep a record by writing the amount down.
- Manage stress.

- Check his or her blood pressure, write down the numbers, and keep a record of them to show their doctor.
- Rest, as needed.
- Avoid wearing tight socks and stocking that could cause blood clots.

F. Taking Medicine for Heart Failure

► Talking Points:

Doctors usually prescribe one or more medicines to treat heart failure.

Sometimes one medicine is given at first and others may be added later on, or two or more medicines may be given at the start.

It's easy to become confused about when to take medicines if a person needs to take several medicines at different times during the day. Even so, it's very important to take medicines as prescribed.

Discussion: Take Your Medicine! Ask the CHWs: Can you think of some things people might do to remind themselves to take their medicines?

Answers could include

- Take pills at the same time everyday, (for example, after breakfast, before bed, or when you get home from work).
- Write down each time you take your pills.
- Put your medicine in a weekly pill box. You can find these boxes at most drugstores and they are low in cost. Put the pill box where you'll be sure to see it everyday. Fill the pillbox at the beginning of the week and open each day's section to take your pills for that day.
- Put "sticky" notes in places you'll be sure to see, such as the bathroom mirror, refrigerator, kitchen cabinet, TV, or car steering wheel.
- Ask a friend to call and remind you.
- Ask your children or grandchildren to call and remind you (children love to help and this is a good way to stay in touch). Or use a phone app to remind you
- Remember to get your prescriptions refilled on time!

Activity 4–3: Taking Medicine for Heart Failure Ask the CHWs to talk about what works best for helping people to take their medicines in their communities. Review the handout with the CHWs. Ask them to add other ideas they have to the list. CHWs can help people with heart failure understand how important it is to always take medicine as advised by the doctor to treat their heart failure.

G. Diet, Fluids, and Weight Gain

► Talking Points:

Diet

High sodium intake is a major problem in the U.S. On average, American adults eat more than double the recommended limit for most adults.

The Dietary Guidelines for Americans, 2010 recommends that Americans aged 2 and up reduce sodium intake to less than 2,300 mg per day (about 1 teaspoon total from all food).

People 51 and older and those of any age who are African Americans or who have high blood pressure, diabetes, or chronic kidney disease—about half the U.S. population and the most adults—should further reduce sodium intake to 1,500 mg per day (about ½ teaspoon total from all food) to prevent or manage high blood pressure and/or its complications.

Too much sodium in your diet is bad for your health. It can increase your blood pressure and your risk for a heart attack and stroke.

Limiting sodium intake is one of the most important things that people with heart failure can do.

You should ask your doctor about the sodium limit that is best for you.

Sodium can cause the body to hold on to fluids. Too much fluid in your body adds weight and makes your heart work harder. Also, too much sodium can cause swelling and shortness of breath and cause weight gain. And if it is severe you may need to go to the hospital.

A low-sodium diet can help people feel better and allow their heart medicines to work better. It may even keep people with heart failure out of the hospital.

People can change what they eat and how they cook. Start slowly and work up to bigger changes.

Tips for cutting down on sodium

- Avoid high-sodium foods. The amount of sodium is very high in restaurant foods, deli meats, and many canned, packaged, frozen, and other and processed foods. This includes
 - Boxed noodle and rice items.
 - Cake, muffin, cornbread, and pancake mixes.
 - Canned vegetables and canned soups and dry soup mixes.
 - Canned meats and fish (buy water packed tuna or salmon instead).
 - Salad dressings.
 - Seasoning mixes (tacos, chili, rice) and ketchup, Worcestershire and steak sauce.
 - Salted butter and margarine.
 - Sauces and gravies.
 - Snack foods (pretzels, potato chips, olives, cheeses, pickles).
 - Tomato and vegetable juice (buy low-sodium juice).

Choose low- or no-sodium versions

- Eat foods lower in sodium (lean pork roast instead of ham, cooked meat instead of packaged lunch meats).
- Use flavored vinegars and lemon as salad dressings.
- Eat more fresh fruits and vegetables.
- Other good choices include plain frozen vegetables.
- Choose foods without sauces or ask for sauce and salad dressing on the side and use just a small amount on your fork.
- When you eat out choose fresh food, and ask that your food be fixed without added salt, soy sauce or monosodium glutamate (often added to Chinese food).
- Check your medicine cabinet. People with heart failure should avoid using headache or heartburn medicines that contain sodium carbonate or sodium bicarbonate.
- Look for cans and packages labeled low-salt, low sodium, reduced-sodium, salt-free, sodium free, or unsalted.

- Don't be fooled by labels. Be careful about foods that claim to be healthy and low-fat. In many cases salt is used to give low-fat foods more flavor.
- Sodium-free or no sodium foods contain less than 5 mg per serving.
- Very low-sodium foods contain 35 mg or less per serving.
- Low sodium foods contain 140 mg or less of sodium per serving.
- Reduced sodium foods must have at least 25% (one-quarter) less sodium than regular products.
- It is important to check food labels for the amount of sodium in the product. The less sodium the better.
- In our session on Health Eating and Weight Control you will learn how to read Food Nutrition labels.
- Take the salt shaker off the table.
- Limit salt when you cook
 - Avoid using salty seasonings, such as bouillon cubes, soy sauce, steak and Worcestershire sauces.
 - Try cooking with naturally low-sodium seasonings and herbs, such as lemon juice (on vegetables and salads), onions, garlic, and salt-free seasoning mixes, to bring out the flavor of food.
 - Avoid spices and seasoning mixes with the words salt or sodium in the name. For example, just 1 teaspoon of garlic salt or celery salt contains about 1,500 mg of salt.
 - Drain and rinse canned foods before using to remove some of the sodium.

Fluid Intake and Weight Gain

It is important to follow your doctor's advice on fluid intake, or how much to drink each day.

If you have heart failure, you should weigh yourself at the same time every morning, wearing the same amount of clothes, after going to the toilet and before eating breakfast.

If you suddenly gain weight (two or more pounds in one day, five or more pounds in one week or whatever you were told to report to your doctor), **call your doctor!**

This weight gain probably happens when your body holds on to more fluids than usual and your treatment plan may need to be adjusted. Dealing with this problem can be as simple as increasing or changing your medicines, so call the doctor!

H. Remaining Active with Heart Failure

► Talking Points:

Learn to balance rest with activity. Daily activity can help the heart get stronger.

Activity reduces weight gain and swelling in the legs and feet, decreases stress and boosts energy levels.

Regular activity also may improve your health. It may help with weight loss and lower blood pressure and cholesterol levels. All of these are really important if you have heart failure.

For people who are having trouble being physically active, a cardiac rehabilitation program at a local hospital or clinic can help. A cardiac rehab program lets people start exercising slowly in a setting where nurses and therapists are there to help. Many people find it easier to stick with a cardiac rehab program and will remain active after they finish the program.

Activity 4–4: Walking for Health Ask the CHWs to share their ideas about safe, flat walking areas for people with heart failure. How could they help a person with heart failure find a walking buddy?

Walking is a great activity. It's easy, it's safe, and it doesn't cost anything. Walking with a friend can be fun and good for both of you!

I. Stress

► Talking points:

Stress can cause changes in your body and your emotions. Stress is the way that you react to situations in your life.

Stress can raise blood pressure and make your heart beat faster. It can also cause your heart to beat irregularly.

Some stress is good for you because it can help you meet the demands of daily life, but too much stress that lasts a long time can cause health problems such as nervousness and depression. Also people under pressure may overeat, smoke or drink too much alcohol.

Some signs of stress are feeling tense or having muscle tightness, having an upset stomach, feeling depressed, and being easily distracted. If these signs last longer than a few weeks, you should talk to your doctor about them.

People should tell their doctors if they have these signs of depression

- Not taking care of your appearance, cleanliness, diet, or exercise.
- Having a loss of interest in people or activities.
- Constantly thinking or worrying about your condition.
- Having trouble getting to sleep or sleeping too much or not enough.
- Using medicine or alcohol to help you sleep.
- Having thoughts of harming yourself.

Activity 4–5: Stress and Your Heart Ask the CHWs to share ways they have found to help people to deal with stress in their lives. They can use the handout to talk about the problem of stress with their peers. They can add new ideas they have just learned to the list.

J. Smoking

► Talking Points:

If you smoke or you are around a lot of secondhand smoke (from other people's smoking), the smoke can affect your heart and blood vessels.

The nicotine in cigarette smoke causes your heart to beat faster and, raises your blood pressure. Tobacco smoke damages blood vessels and this damage adds to plaque build-up in the blood vessels.

At the same time, nicotine causes blood vessels in your whole body to become smaller.

When your heart muscle is weak from heart failure, cigarette smoke makes your heart work too hard and it can't work properly.

A weak heart pumps less blood than a normal heart so less oxygen reaches the brain and other organs. Smoking lowers the amount of oxygen even more. This lack of oxygen may cause dizziness, lightheadedness, or tiredness.

Ask:

What are some of the ways CHWs can support people who are at risk for heart failure or already have heart failure?

Activity 4-6A: What CHWs Can Do to Help Community Members Who Are at Risk for Heart Failure or Who Already Have Heart Failure? Ask the CHWs for their suggestions and give cues to help them remember

The importance of teaching and reminding people to keep their blood pressure and cholesterol levels under control.

- To check their blood pressure and cholesterol levels regularly.
- To keep medical appointments.
- To know the warning signs of heart failure.

Review the list with the CHWs and, have them add their ideas to the list.

Activity 4–6B: Caring for Your Own Health and Your Heart If You Have Heart Failure End this chapter by reviewing Handout 4–6B. It's important that people with heart failure know the things they can do for their own health. They'll live longer, they'll stay out of the hospital, and they'll feel better too. CHWs can give this list to people and talk to them about it.

Posttest Questions

Circle the letters for ALL the correct answers in the questions. A question may have more than one correct answer.

1. What are the signs of heart failure?

- a. Swollen feet and ankles.
- b. A racing heartbeat.
- c. Shortness of breath.
- d. Repeated coughing.

2. Which are good lifestyle changes for heart failure?

- a. Losing weight, if overweight.
- b. Selecting low-sodium foods to eat.
- c. Stop smoking.
- d. Becoming totally inactive.

3. What should you do about your medicine for heart failure?

- a. Stop taking it when you feel better.
- b. Tell your doctor about medicines you buy at the drugstore without a prescription.
- c. When you go on a trip leave your medicines at home.
- d. Take you medicines exactly as prescribed.

Correct Answers to Posttest Questions

1. a,b,c,d,

2. a,b,c

3. b,

The Signs of Heart Failure

Activity 4-1

If you or a family member has heart failure, chances are you've already made a trip to emergency room, or at least spent some time in the hospital.

You can decrease the chances of another hospital stay by calling your doctor right away if any of these warning signs appear

- Sudden weight gain (2 or more pounds in one day, five or more pounds in one week, or whatever amount your doctor told you to report).
- Fast heart beat (feels like heart is racing).
- Shortness of breath when you are not active.
- Coughing or wheezing when you are active.
- Repeated, dry cough, especially when lying down.
- Coughing-up pink or bloody mucus.
- Increased swelling of feet, ankles, legs, or stomach.
- Weakness or tiring very easily.
- Confused or can't think clearly.
- Lack of appetite and nausea.



Tests for Diagnosing Heart Failure

Activity 4-2

Type of Test	What it Does
Blood Tests	checks for problems in liver and kidney that may be caused by HF
Chest X-ray	shows the condition of the heart (size) and lungs (congestion)
Electrocardiogram (ECG)	checks how well the heart is pumping blood
Echocardiography(ECG)	check the electrical activity (rhythm) of your heart
MUGA Scan	checks how well heart is working and pumping blood
Cardiac catheterization (angiogram)	looks for blockages of arteries and for blood flow



Take your medicine as the doctor advises.

It may take your doctor a few days or weeks to figure out the right amount of medicine for you. Your doctor may change the amount to improve how your heart works.

Do not skip or stop taking your medicine, even if you are feeling better.

Your heart failure may get worse if you stop your medicines. Your doctor will tell you when to stop taking a medicine.

Do not take more medicine than your doctor advises.

If you are not feeling better, or are feeling worse, be sure to tell your doctor.

Do not run out of medicine.

If you will be away from home, take your medicine with you. Be sure you have enough medicine on hand before the drugstore closes for holidays or the weather turns bad.

If you are worried about the cost, tell your doctor or pharmacist.

There may be another type of drug, or a generic drug, that costs less.

You can compare prices at different drugstores. You may also be able to get free medicines from drug companies. Low-cost medicines may be available from your local drugstore if you have a Medicare drug card.

Tell your doctor if you have other health problems and if you are taking other medicines.

Be sure to tell your doctor about any medicines that you buy at the drugstore without a doctor's prescription (for example, sinus, cough, and cold medicines, aspirin, or other pain medicines).

Tell your doctor if you are allergic to any medicines, foods, or other products.



It's easy! It doesn't cost a thing. It's safe. It's good for you. And it's fun—especially if you walk with a friend.

Walk anywhere that is easy, close, and safe for you. Plan where you will walk before you go. Think of flat areas where you can walk, such as shopping malls, school tracks, or streets near your home. Pick a time and a place that work for you. Plan to walk with someone. If you can't, be sure someone knows when and where you are walking.

When should I not walk?

- Do not walk if you are not feeling well (if, for example, you have a cold or if you have a fever). Wait for 24 hours after your temperature has returned to normal before increasing your activity.
- Do not walk outdoors if the weather is too hot or too cold. Find an indoor place to walk (such as a shopping mall) when the weather is not good.
- Do not walk right after you eat a meal. Your heart is busy pumping blood needed to digest your meal. Wait at least one hour after eating before you go walking.

If you miss more than three days of walking, decrease your time and begin again slowly. This is a plan for life, so don't worry too much about "catching up."

What do I wear? Wear loose-fitting clothes. If you have comfortable shoes that fit well, wear them. Well-cushioned shoes, such as oxfords or athletic shoes, work well. Wear socks to give a little more cushion and to help prevent blisters.

What else do I need to know? Your doctor or cardiac rehab staff will tell you if you need special instructions, such as how to check your heart rate, or other information that will help you be more active.

Sample Walking Program

Week	Comfortable Walking	Times A Day
1	5 minutes	3
2	7 minutes	3
3	10 minutes	2
4	12 minutes	2
5	13 minutes	2
6	15 minutes	2

When you are comfortable walking 15 minutes twice a day, you may want to talk with your health care provider about increasing your activity.

You should be able to walk and talk at the same time. If you can't talk because you are gasping for air, you are walking too fast. If you can talk as easy while walking as when you are still, then you should try walking a little faster.

Good luck and keep moving!



Can stress affect my body?

Yes, stress helps you meet the demands of daily life, but too much stress or stress that lasts a long time can cause health problems such as high blood pressure, nervousness, depression, or stomach ulcers.

What can stress do to my heart?

Stress can raise your blood pressure and make your heart beat faster or beat irregularly. Your muscles may get tight, you may feel more alert, or you may feel more nervous or upset.

When do I need to get special help for my stress?

If the following feelings last longer than a few weeks, you should talk with your doctor.

- Not tending to your appearance, cleanliness, diet, or exercise.
- Loss of interest in activities or people.
- Always thinking of or worrying about your condition.
- Trouble getting to sleep or sleeping too much or not enough.
- Using medicines or alcohol to help you sleep.
- Having thoughts of harming yourself.

What can I do to reduce my stress?

Try to figure out what causes you to feel stressed. Talking to someone who cares about you often helps. You need to talk about how you feel and what you think. Try to think about your situation in a hopeful way. Avoid blaming yourself or others for your situation.

- Start by having a hopeful outlook.
- Avoid activities or situations that cause you stress.
- Learn how to relax.
- Start a regular exercise program when approved by your doctor.
- Follow a health diet and
- Build a support group of family and friends.

Your doctor can help you learn ways to relax, follow a good diet, and start an exercise plan.



What Community Health Workers Can Do to Help Community Members Who Are at Risk for Heart Failure (with Program Support)

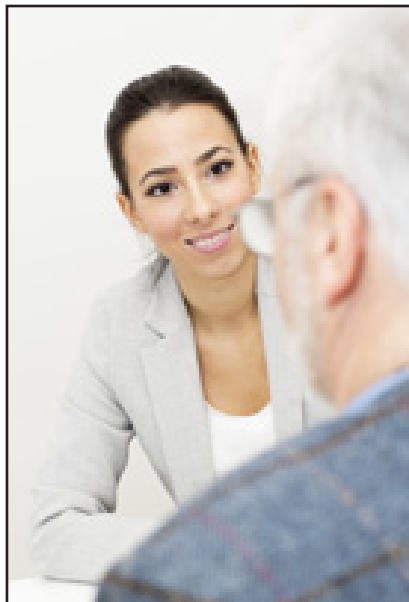
Activity 4–6

Support people in their health care needs

- Help community members understand the importance of taking their medications regularly (for heart, high blood pressure, high cholesterol, diabetes, etc.) in order to prevent heart failure.
- Teach community members the signs of heart failure.
- Teach family members to call their doctor right away to report heart failure signs.

Help people make better lifestyle choices

- Show people how to follow a low sodium eating plan. They need to reduce their daily sodium intake to an amount their doctor advises.
- Teach people to get regular, mild physical activity, stop smoking, lose weight (if they are overweight), and drink very little alcohol, if any.
- Encourage community members with heart failure and the people who care for them to get help in managing stress and depression.



What Community Health Workers Can Do to Help Community Members Who Already Have Heart Failure (with Program Support)

Activity 4–7

All of the suggestions for people at risk for heart failure apply to those who have heart failure, plus the following

- Help community members with heart failure understand what they need to do to stay as healthy as possible and to avoid going to the hospital.
- Help community members get follow-up rehab for heart failure, if the doctor advises it.
- Remind community members to take heart medicines exactly as the doctor advises; tell them not to skip taking the medicine and to take care not to run out of the medicine.
- Help community members understand the importance of taking other medicines regularly (for diabetes, high blood pressure, high cholesterol, etc.), as the doctor advises, in order to reduce the chance of sudden worsening of heart failure.
- Help people learn how to keep track of the medicines they are taking.
- Help community members find affordable medicines.
- Help people get a scale so that they can weigh themselves each day at the same time.
- Encourage community members with heart failure to check and record their weight daily and to call the doctor's office as recommended.
- Remind community members to follow their doctor's advice on how much fluid they should drink.
- Teach community members to reduce their sodium intake to an amount their doctor advises.
- Support caregivers by giving them information, helping them find caregiver resources, and helping them talk with members of the healthcare team.
- Learn and teach exercises on ways to relax and cope.
- Encourage community members with heart failure and the people who take care of them to get help in managing stress and depression.



Caring for Your Own Health and Your Heart

Activity 4–8

What is meant by heart failure? Having heart failure means your heart does not pump blood as well as it should. Having heart failure can make it hard for you to do things now that may have been easier for you in the past.

What can be done to treat heart failure? Keep regular visits with your doctor. In most cases, heart failure will not go away. But you and your doctor can work together to help make your life more comfortable. Your doctor will give you medicines that will lower the strain on your heart. Your heart should work easier, and you should feel better.

What else can I do to feel better?

- Take your medicine as prescribed by your doctor.
- Watch what you eat and drink. Eat foods low in sodium so your body does not build up extra fluid. Your weight will go up if fluid builds up in your body. Extra fluid makes your heart work harder.
- Weigh yourself daily and call your doctor if your weight increases by 3–5 pounds over several days, or 2 pounds or more overnight.
- Ask your doctor about the amount of fluid you should drink.
- Do not smoke. Smoking harms the blood vessels in your heart and other parts of your body. Smoking lowers the amount of oxygen in your heart and makes your heart beat faster and work harder than it should. Ask your doctor for help to stop smoking.
- Lose weight if you are overweight. Being overweight can put a strain on your heart. Talk with your doctor about how to lose weight so that you can take some strain off your heart.
- Be as active as possible. Your doctor will suggest the types of activities you can do, such as walking.
- Get enough sleep, rest, and activity. Try to get eight hours of sleep each night. Tell your doctor if you are not sleeping well. Learn to balance rest with activity.

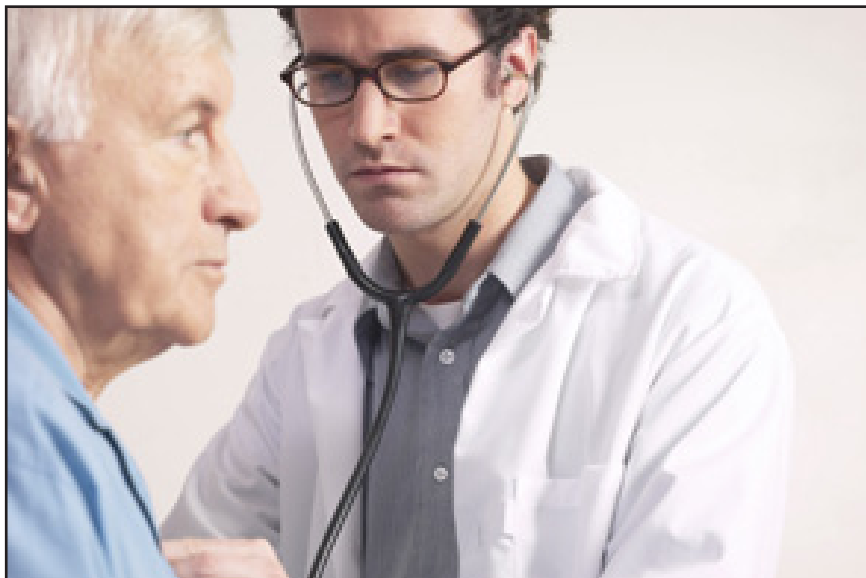
How can I keep track of my progress? Keep a health notebook. Write down when you walk or do other activities that your doctor suggests and when you take your medicines. Weigh yourself each day and write it down. Weigh yourself at the same time each morning and with the same amount of clothes.

Keep regular visits with your doctor. Show the doctor your notebook where you write your weight, medication, and exercise. Tell the doctor how you are feeling and if you have any new or increasing symptoms (what you feel). The doctor will change your medications, diet, fluid intake, and exercise if needed.

When should I call the doctor? You should call your doctor if you start to feel worse or if you have new feelings that are uncomfortable.

Call your doctor if:

- You find it harder to breathe at rest or with activity.
- You are getting tired faster or getting weaker.
- You start coughing at night or have a dry, hacking cough.
- You wake up gasping for breath.
- You are unable to sleep while lying down, or you need to use extra pillows to make your breathing easier.
- You gain three pounds or more in three days or two pounds or more overnight.
- You feel dizzy or faint.
- You have tightness or pain in your chest.



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Objectives

By the end of this session, community health workers will be able to

- Describe atrial fibrillation (AFib).
- Name the risk factors for atrial fibrillation.
- Describe the signs of atrial fibrillation.
- Discuss stroke as a result of atrial fibrillation.
- Discuss treatments for atrial fibrillation, including medicines that might be prescribed.

Activities

- 5–1: How does the Heart Work?
- 5–2: How do You Take a Pulse?
- 5–3: What is a Pacemaker?
- 5–4: What is a Defibrillator?
- 5–5: What is an Atrial Fibrillation Plan?
- 5–6: What Community Health Workers Can Do to Help Community Members Who Are at Risk for Atrial Fibrillation or Who Have Atrial Fibrillation?

Chapter Outline

- A. What Is Atrial Fibrillation (AFib)?
- B. What Causes AFib?
- C. What Are the Risk Factors for AFib?
- D. What Are the Signs of AFib?
- E. Atrial Fibrillation and Stroke
- F. What Is the Treatment for AFib?
- G. What Is the Treatment for Preventing Blood Clots and What Should You Do?
- H. What Is the Treatment for Slowing a Rapid Heart Rate?
- I. What Is the Treatment for Restoring Normal Heart Rhythm?

Pretest Questions

Circle letters for ALL correct answers. A question may have more than one correct answer.

What are the risk factors for atrial fibrillation?

- a. Heart attack.
- b. Heart failure.
- c. Kidney disease.
- d. Diabetes.

2. What are the signs of atrial fibrillation?

- a. A racing heart beat.
- b. Temporary blindness.
- c. Palpitations—a “flopping” sensation in the chest.

3. What are the treatments for atrial fibrillation?

- a. Medicines.
- b. Pacemaker.
- c. Rehab.

4. What medicines might be used to treat atrial fibrillation?

- a. Muscle relaxants.
- b. Blood thinners.
- c. Medicine to restore normal heart rhythm and rate.
- d. Aspirin.

► Talking Points:

In this chapter, we'll talk about a serious heart condition that you may not have heard about.

It's called atrial fibrillation.

Before we begin talking about atrial fibrillation let's do a quick review of how the heart works.

Lesson

A. What Is Atrial Fibrillation (AFib)?

► Talking Points:

Atrial fibrillation (A-tre-al fi-bri-LA-shun), or AFib, is the most common type of **arrhythmia** (ah-RITH-me-ah). An arrhythmia is a problem with the rate or rhythm of the heartbeat. During an arrhythmia, the heart can beat too fast, too slow, or with an irregular rhythm.

► Talking Points:

Normally, the heart contracts and relaxes in regular, evenly timed beats. It keeps a steady rhythm—about 60 to 100 beats per minute. The regular beating makes the heart pump the right amount of blood with enough force to send it to all parts of the body.

For several different reasons, the heart sometimes begins beating irregularly, and it may beat too fast or too slowly. In AFib, the heart's upper chambers, the atria, don't beat in coordination with its lower chambers, the ventricles, and the result is an irregular beat and usually a fast heart rate. At that time, the heart is not pumping the blood well. AFib can take place on and off, or the heart can have this irregular rhythm all the time.

AFib can lead to such problems as tiredness. Even worse, it can lead to heart failure or stroke.

Activity 5–1 What is AFib? Review the resource from the American Heart Association with the CHWs and answer questions they may have. This is resource that CHWs can use to explain AFib to community members.

http://www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/downloadable/ucm_300294.pdf

B. What Causes AFib ?

► Talking Points:

Doctors don't know why many people develop atrial fibrillation. The most common cause is heart valves that are not working properly.

C. What Are the Risk Factors for AFib?

► Talking Points:

Your risk of developing atrial fibrillation increases if you have, or have had, other heart problems; such as

- Heart failure.
- High blood pressure.
- Diabetes.
- Heart attack.
- Coronary artery disease (blockage of blood vessels in the heart).

Older people are more likely to have AFib than younger people. AFib also often develops in people who have lung disease.

Heavy drinking of alcohol may cause AFib and put a person, who has heart disease, at risk for heart attack. Many people who have AFib don't know if they have heart disease, so a person who feels an abnormal heart rhythm should get medical help right away.

Smoking affects how the body uses medicines and increases the risk of blood clotting. Smoking makes blood stickier, damages the lining of the blood vessels, and it increases the chance of a heart attack. If you smoke, quit.

Other things can trigger atrial fibrillation; such as

- Use of illegal drugs, such as cocaine and methamphetamines.

- Too much caffeine (found in coffee, tea, chocolate, and some sodas).
- Decongestant medicine (such as cold and sinus medicine).

D. What Are the Signs of AFib?

► Talking Points:

Some people have no warning signs of AFib. Others may have one or more of the following signs

- A racing or irregular heartbeat.
- Chest discomfort or pain, or palpitations — a “flopping” sensation in the chest.
- Lightheadedness or dizziness.
- Extreme tiredness.
- Shortness of breath.

Some people who have AFib don’t feel anything noticeable. Others notice an irregular heartbeat. People may also have dizziness, sweating, or chest pain or pressure, particularly when the heart is beating very fast.

When AFib is left untreated and the heart keeps beating at a fast rate, the heart becomes enlarged and can’t pump as much blood. This can lead to heart failure.

Heart failure can cause shortness of breath, a feeling of overall weakness, tiredness, and swelling of the legs and feet.

E. Atrial Fibrillation and Stroke

► Talking Points:

In Afib, the heart doesn’t work well and beats irregularly or too fast, and the blood tends to form clots. If a clot that forms in the heart breaks loose and enters the bloodstream, it can travel to a blood vessel in the brain, block the vessel, and cause a stroke.

Not everyone with AFib will have a stroke. Blood clots or plaque in the blood vessels cause Ischemic strokes. AFib increases your risk of having an ischemic stroke by 5 times. That’s why if your doctor tells you that you have AFib you should work with him or her to treat it right away.

Treating AFib correctly is the best way to reduce your risk for stroke.

F. What Is the Treatment for AFib?

► Talking Points

AFib is treated with medicine, a medical device, surgery, or a combination of the three.

All treatment plans for AFib should include three goals

- Preventing blood clots from forming.
- Slowing the heart rate.
- Restoring the heart's normal rhythm.

G. What Is the Treatment for Preventing Blood Clots and What Should You Do?

► Talking Points:

People who have AFib can live normal, active lives. For some people, treatment can restore normal heart rhythms.

For people who have long term AFib, treatment can help control symptoms and prevent problems. Treatment may include lifestyle changes, medicines, medical actions, and surgery.

To prevent blood clots from forming, your doctor will probably prescribe a blood thinning medicine.

Blood thinning medicine is used because during AFib, the heart is not pumping blood as well as it should be, and blood clots are more likely to form.

Warfarin, an anticoagulant, is a common blood thinner prescribed. An anticoagulant reduces the blood's ability to clot. Taking blood thinners can prevent stroke in most patients with AFib.

The use of this medicine must be carefully watched. Too much warfarin can cause abnormal bleeding, and too little won't protect against the blood forming clots.

Newer blood thinning medicines are easier to use than warfarin.

Your doctor may prescribe medicines to restore normal heart rhythm and heart rate.

Surgical treatment may include installing a pacemaker under the skin, near the collarbone. The pacemaker helps your heart beat more regularly.

Treatment also includes medicines and lifestyle changes to reduce the risk for AFib from high blood pressure, diabetes, and obesity.

Activity 5–2 How do You Take a Pulse? Taking your pulse helps you monitor your heart rhythm. Arrange for CHWs to be trained on how to take a pulse.

Patients should ask their doctors these three questions: What should my pulse be? How do I take my pulse? What should I do if my pulse is too high or too low?

► Talking Points:

Tell Your Doctor

- People taking a blood thinner should tell their doctor right away if they have any unusual bleeding or bruising.
- Persons who take blood thinning medicine need to have their blood clotting time tested regularly to make sure they're getting the right amount of medicine. It's very important to have these blood tests as often as the doctor advises.
- Newer blood thinning medicines do not require blood clotting time tests and trips to the lab or doctor's office.
- If people forget to take a dose of blood thinning medicine, they should not take an extra dose to "catch up." Instead, they should call their doctor, explain that they missed their regular dose, and then follow their doctor's advice.
- People taking blood thinning medicine should tell all the doctors they are seeing that they take this medicine. The doctor who monitors the blood thinning medicine should know about all other medicines you take.
- It is very important to tell the doctor before starting any new medicine or having any medical treatment that can cause bleeding, such as having surgery or having a tooth pulled.

Tell Your Dentist

- Those who take blood thinners should always tell their dentist before having dental work because blood thinners can increase bleeding of the gums.
- Also, the dentist may have to give medicine for pain or to prevent infection. Some pain medicines and antibiotics (infection-fighting medicines) can cause a bad reaction when taken along with blood thinners. The dentist may need to contact a person's doctor before doing dental work or giving medicines.

Watch What You Eat and Drink

- Vitamin K, which is found in some foods, can block warfarin's effect. That's why it's important to carefully follow the doctor's advice about what you eat when taking this medicine.
- People taking warfarin should eat a balanced diet and should not suddenly increase the amount of green vegetables they eat.
- These vegetables, which include broccoli, raw spinach, cabbage, lettuce, and spinach, turnip greens, and collard greens are high in vitamin K.
- Some dressings and oils are high in vitamin K. They include mayonnaise and canola and soybean oil.
- Eating too much of these foods at one meal or in one day can interfere with the medicine's ability to prevent clots.
- People on blood thinners should tell their pharmacist if they are taking a multivitamin or any herbal products. The pharmacist can help find a multivitamin or supplement without vitamin K. Also, some herbal products such as chamomile and Ginkgo Biloba may increase the effect of blood thinning medicine. Other herbal products, such as, green tea and St. John's Wart can decrease the effect of blood thinning medicine.
- Another medicine the doctor may prescribe to prevent blood clots is aspirin. Aspirin is less likely than warfarin to cause abnormal bleeding, but it is not as effective in preventing strokes caused by blood clots.

H. What Is the Treatment for Slowing a Rapid Heart Rate?**► Talking Points:**

To slow the heart rate, the doctor may prescribe a medicine that slows the rate at which the heart contracts. Slowing the heart rate in this way

- Gives a normal heart rate.
- Decreases the heart's workload.
- Reduces discomfort.
- Prevents heart failure. (AFib can lead to heart failure because the extra workload on the heart causes the ventricles to enlarge and the heart muscle to become weaker.)

I. What Is the Treatment for Restoring Normal Heart Rhythm?

► Talking Points:

To restore normal rhythm to the heart, AFib must be stopped. The doctor may recommend medicine to do this.

Another method of stopping AFib is to apply an electrical shock to the chest after the person has been given a short-acting medicine to put him or her to sleep for a few minutes. Sometimes both rhythm-restoring medicine and electric shock are used.

For people whose AFib is hard to control, other methods may be needed. One method is to use a pacemaker, and another is surgery.

A pacemaker is a small device that helps regulate the heartbeat. It is placed under the skin near the collarbone.

A defibrillator is another small device that is placed under the skin that keeps track of your heart rate. It can send signals to your heart to get it to beat faster. And it can send an electrical shock to your heart to help if your heart is beating too slowly.

Sometimes heart surgery is necessary.

Activity 5-3 What is a Pacemaker? Have the CHWs watch the video about the pacemaker and answer questions they may have.

http://watchlearnlive.heart.org/CVML_Player.php?moduleSelect=pacmkr

Also, the American Heart Association has a patient information sheet that CHWs can share with community members. Review the sheet and answer questions the CHWs may have. http://www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/downloadable/ucm_300451.pdf

Activity 5-4 What is a Defibrillator? One way to control AFib is with a small device, called a defibrillator that is placed under your skin, below the collarbone. The defibrillator can detect abnormal heartbeats and restores your heart's normal rhythm.

Review the resource sheet with the CHWs and answer any questions they may have. CHWs can use this resource to explain defibrillators to community members.

http://watchlearnlive.heart.org/CVML_Player.php?moduleSelect=icddev

Activity 5-5 What is a AFib Treatment Plan?

Review the American Heart Association handout on treatment plans with the CHWs. This sheet would be helpful to give people so they can take it with them when they see their doctor.

http://www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/downloadable/ucm_423745.pdf

Activity 5–6: What Community Health Workers Can Do to Help Community Members Who Are at Risk for Atrial Fibrillation or Who Have Atrial Fibrillation

Have the CHWs talk about some ways they could support people in the community who have atrial fibrillation.

Ask the CHWs to suggest ways to help people remember to regularly check their blood pressure and pulse and to keep medical appointments.

CHWs should also encourage people with atrial fibrillation to know what emergency numbers to call and to have a plan in place in case of a medical emergency.

Tell the CHWs that if they are working with people who take blood thinners, they should remind them about several important points

- These people should always take the amount of medicine the doctor prescribes. If they forget a dose, they shouldn't take an extra dose to "catch up." Instead, they should call the doctor and follow his or her advice.
- They should tell their doctor if they have unusual bleeding or bruising.
- Before they have dental work, they should tell their dentist that they take blood thinners. They should also tell their other doctors and anyone who prescribes medicine for them.
- They should always let their doctors know about any other medicines (even over-the-counter medicines) they are taking or might take. They should talk to their doctor before taking vitamins or any other kind of supplement.

Review the activity 5-6 handout with the CHWs. Have them write down any other ideas that they share with each other.

Posttest Questions:

Circle the letters for ALL the correct answers in questions.
A question may have more than one answer.

What are the risk factors for atrial fibrillation?

- a. Heart attack.
- b. Heart failure.
- c. Kidney disease.
- d. Diabetes.

2. What are the signs of atrial fibrillation?

- a. A racing heart beat.
- b. Temporary blindness.
- c. Palpitations --a “flopping” sensation in the chest.

3. What are the treatments for atrial fibrillation?

- a. Medicines.
- b. Pacemaker.
- c. Rehab.

4. What medicines might be used to treat atrial fibrillation?

- a. Muscle relaxants.
- b. Blood thinners.
- c. Medicine to restore normal heart rhythm and rate.
- d. Aspirin.

Answers to Test Questions:

1. a,b,d

2. a,c,

3. a,b

4. b,c,d

What is AFib?

Activity 5–1

Review the resource from the American Heart Association. This is resource that CHWs can use to explain AFib to community members.

http://www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/downloadable/ucm_300294.pdf



How do You Take a Pulse?

Activity 5–2

Taking your pulse helps you monitor your heart rhythm. Your trainers will train you on how to take a pulse.

The easiest place to check your pulse is your wrist. You can do this by placing 2 fingers (not thumb) on the inside of your wrists, below the thumb.

Count the beats for 30 seconds, and then double the number of beats to get the number of beats per minute.

Another resources for learning how to take a pulse

http://www.move.va.gov/download/NewHandouts/PhysicalActivity/P09_HowToTakeYourHeartRate.pdf

Patients should ask their doctors these three questions

- What should my pulse be?
- How do I take my pulse?
- What should I do if my pulse is too high or too low?



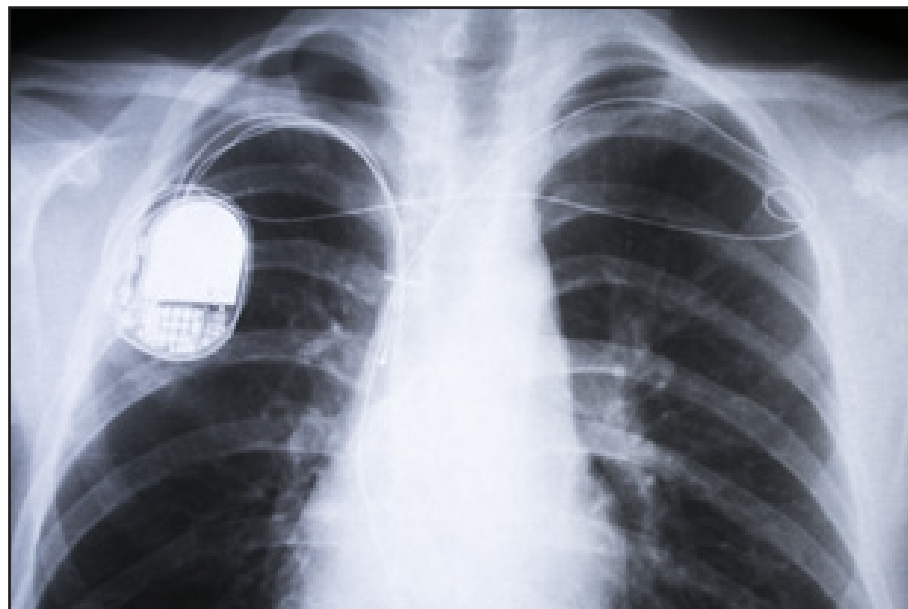
What is a Pacemaker?

Activity 5–3

Watch the video on the pacemaker and how it works.

http://watchlearnlive.heart.org/CVML_Player.php?moduleSelect=pacmkr

Also, the American Heart Association has a patient information sheet that CHWs can use to explain the Pacemaker to community members. http://www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/downloadable/ucm_300451.pdf



What is an AFib Treatment Plan?

Activity 5-4

Review the American Heart Association handout on treatment plans with your trainer. Ask any questions you have.

This sheet would be helpful for people to take with them when they see their doctor.

http://www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/downloadable/ucm_423745.pdf

The image shows a screenshot of a patient handout titled "AFib: Partnering in Your Treatment". The subtitle reads "Bring this sheet with you to your appointment and discuss the following with your doctor." The form is divided into several sections with icons and questions:

- How serious is my AFib?** (Heart icon): "In what ways does AFib increase my health risks?" and "Do I have other health concerns that may increase my risks?"
- What are my medication options?** (Pill icon): "Should I be taking a medication for AFib?", "What will happen if I don't take it?", and "What should I expect from it?"
- Do I need to make lifestyle changes?** (Pencil icon): "Should I change any of the following to reduce my risks?" with checkboxes for "Eating habits?", "Physical activity?", "A plan to stop smoking?", "My weight?", and "Other?".
- Are there other treatment options?** (Gears icon): "What are my other possible options?" and "When should they be considered?"
- What are my treatment goals?** (Target icon): "With my treatment plan, what should I expect to see?" and "We will know we are making progress when..."

Image source:
American Heart Association



Supporting People in Their Health Care Needs

- Teach community members the signs of atrial fibrillation remind them to be aware when they have any signs and to call their doctor right away.
- Help community members understand how important it is to take their medications regularly (for heart, high blood pressure, high cholesterol, diabetes, etc.).
- Teach patients to check with their pharmacist before buying herbal products and multivitamins.
- Teach community members how to take their pulse.
- Remind them to take it regularly.

Helping People Make Better Lifestyle Choices

- Teach people to get regular physical activity, eat healthy low-sodium and low-fat foods, stop smoking, lose weight (if they are overweight), and drink very little alcohol, if any.

What CHWs Can Do to Help Community Members Who Have Atrial Fibrillation (with Program Support)

All of the suggestions for people at-risk for atrial fibrillation apply (see the page before this) plus

- Help people understand that they need to take their medicines exactly as their doctor advises.
- Tell them that if they take blood thinners and miss taking a dose they need to call the doctor or nurse to find out what to do next.
- Teach them that if they take warfarin (blood thinning medicine) they should not suddenly increase the amount of green vegetables they are eating (such as broccoli, cabbage, lettuce, and spinach, which are high in vitamin K). Eating too much of these vegetables at one meal or in one day can keep warfarin from working to prevent blood clots.

- Support caregivers by giving them information, helping them find caregiver resources, and helping them talk with members of the health care team.
- Learn and teach exercises on ways to relax and cope.
- Encourage community members with heart failure and the people that take care of them to get help for managing stress and depression.
- Help community members understand that because they have atrial fibrillation they are at great risk for having a heart attack and a stroke and really need to take care of themselves.



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Objectives

By the end of this session, community health workers will be able to

- Define stress and depression.
 - Discuss how stress can be managed.
 - Discuss the relationship of depression and stress to heart disease and stroke.
-

Activities

- 6–1 How Can I Cope with Stress?
 - 6–2 Signs of Depression
 - 6–3 Four Steps to Understand and Get Help for Depression
-

Chapter Outline

- A. What Is Stress?
- B. How Can I Cope with Stress?
- C. What Is Depression?
- D. What Causes Depression?
- E. How Is Depression Diagnosed?
- F. How Is Depression Treated?
- G. What Do Depression and Stress Have to Do with Heart Disease and Stroke?

Pre-test Questions

Circle letters for ALL correct answers. A question may have more than one correct answer.

1. What are some signs of stress?

- a. Feeling anxious.
- b. Feeling tense.
- c. Feeling excited.
- d. Feeling worried.

2. What are ways to cope with stress?

- a. Schedule regular times for healthy and relaxing activities.
- b. Keep your problems to yourself.
- c. Don't use smoking, overeating, drinking, and illegal drugs .
- d. Be physically inactive.

3. What are signs of depression?

- a. Hard to focus; forgetful.
- b. Thoughts of suicide.
- c. Anger.
- d. Likes talking to people.

4. What are ways to manage depression?

- a. See your doctor.
- b. Don't ask for any help from anyone.
- c. Take antidepressant medicines.
- d. Go to talk therapy.

► Talking Points:

We've talked about several risk factors for heart disease and stroke—physical conditions, such as high blood pressure, high levels of blood cholesterol, and diabetes; and personal behaviors, such as smoking, bad eating habits, and lack of physical activity.

But the title of this session is about different types of risk—depression and stress. You may be wondering what these two things have to do with heart disease and stroke.

Studies suggest that there is a connection between heart health and stress or depression.

Some common ways that people cope with stress, such as overeating, heavy drinking, and smoking are bad for the heart.

If you have stress over a long period of time it can harm the heart.

The most common “trigger” for a heart attack is a stressful event, especially one involving anger.

After a heart attack or stroke, people with higher levels of stress and anxiety tend to have more trouble getting well.

Depression over a long time can also harm the heart.

Depression is common among people who have had a heart attack, heart surgery, and a stroke.

► Talking Points:

If you sometimes feel depressed or have a lot of stress in your life, are you at a higher risk for heart disease?

Not necessarily, but if you manage your stress and get help for your depression your overall health will improve and your risk for heart attack goes down.

Exactly what does it mean to be suffering from depression or to be “stressed out?”

A. What Is Stress?

► Talking Points:

Stress can be defined as the brain's response to any demand. Many things can trigger this response, including change. Stress can mean many different things, but for our purposes, we'll define stress as "mental tension," or feeling tense, anxious, or worried for long periods of time.

All people feel stress, but they feel it in different amounts and react to it in different ways.

Stress affects your overall health

There are at least three different types of stress, all of which carry physical and mental health risks

- Routine stress related to the pressures of work, family and other daily duties.
- Stress brought about by a sudden negative change, such as losing a job, divorce, or illness.
- Traumatic stress, experienced in an event like a major accident, war, assault, or a natural disaster where one may be seriously hurt or in danger of being killed.

The body responds to each type of stress in similar ways. Different people may feel it in different ways. For example, some people have mainly digestive problems, while others may have headaches, sleeplessness, depressed mood, anger and irritability. People under constant stress are more likely to have more infections, such as the flu or common cold.

Of all the types of stress, changes in health from routine stress may be hardest to notice at first. Because the usual source of stress tends to be more constant than in cases of sudden, strong or traumatic stress, the body gets no clear signal to return to normal ways of working. Over time, non-stop strain on your body from everyday stress may lead to serious health problems, such as heart disease, high blood pressure, diabetes, depression, anxiety disorder, and other illnesses.

B. How Can I Control Stress?

► Talking Points:

You can reduce the stress in your life by making changes in your lifestyle. Here are some tips

Keep up a positive attitude. Focus on the positive things that happen in your everyday life. Take time to have fun and to enjoy the simple things that make

you happy. Take a walk on a sunny day and enjoy the birds, trees, and flowers. Watch a funny TV show.

Accept that stress is a part of life. Make a list of the things in life that cause you stress and then think about how serious each of them really is. Pick out the things that are not under your control, such as the weather.

When you feel stressed, think about the cause. Is it something minor, or is it something you cannot control?

Think about whether the stress is actually causing you more harm than the problem itself. Thinking about it may help reduce your stress.

Try to balance home and work duties. To have a balanced life means spending the most time and energy possible on what is most important to you. There is no set formula for living a balanced life. For example, some people like working a 60-hour work week, while others want to spend less time at work and more time with family or friends.

Manage time. Don't try to squeeze more work into a day than you can actually do. Also, leave room for unplanned things that come up. Take a mid-morning and afternoon break. You'll get more done.

Set goals you can reach. When you think about setting goals, make sure that they are within your reach. Think about your schedule and other personal issues. Many people forget to think about these important things and, as a result, they set goals they can't reach.

Learn to relax. Practice doing certain things slowly (for example, eating or folding laundry). Sit back in a chair and concentrate on relaxing your muscles. If you find this task hard, try tensing and relaxing your muscles in turn, until you can tell the difference between having tense muscles and relaxed ones.

Eat healthy meals and snacks and be physically active each day. People who are hungry become "stressed out" more easily. Caffeine (found in coffee, tea, soft drinks, and some medicines) can cause nervousness and tension. Physical activity reduces stress and helps the heart, lungs, and blood vessels stay healthier. It also makes you feel better.

► Talking Points:

Stress is hard to measure. Because it's not considered an illness, it's not something that a doctor can diagnose using medical tests.

Stress can be as harmful to your health as some illnesses. Although we usually don't talk about treating stress medically, it's important to manage the stress in your life. Stress that happens once in a while is OK, but constant stress can be deadly.

Activity 6–1 How can I Cope with Stress No one can control all of life's challenges, but there are ways to cope with them. Ask the CHWs how they deal with stress, and ask them for their suggestions for helping community members reduce stress. Then, review the suggestions for managing stress listed on the handout and talk about actions they did not mention.

Ask the CHWs what they think of each suggestion. Would carrying out these ideas help people in their community? If not, what would be better? Ask CHWs to state two things that a person could do to regain balance in his or her life.

C. What Is Depression?

► Talking Points:

Everyone occasionally feels blue or sad. But these feelings are usually short-lived and pass within a couple of days. When you have depression, it affects the way you eat and sleep, the way you feel about yourself, and your ability to function in everyday life for a longer time.

People that are depressed have less interest in activities which used to be enjoyable. Other signs of depression include: weight gain or loss, fatigue, needless guilt, a hard time concentrating, as well as repeated thoughts of death.

Depression causes pain for both you and those who care about you. Depression is a common but serious illness.

Depression is not a sign of personal weakness, and it's not something that can be wished away. Without treatment, depression can last for weeks, months, or even years. But most people, even those with the most severe depression, can get better with treatment.

D. What Causes Depression?

► Talking Points:

Depression sometimes runs in families. This means that if you have depression, others in your family; such as, a grandparent, parent, aunt, uncle, cousin, sister, or brother may also have it.

Sometimes painful events or losses, such as a death in the family, can lead to depression.

Sometimes the cause of depression is not clear.

Medical problems such as a stroke, a heart attack, or cancer can cause a person to become depressed. As the result of depression the sick person may be unable to care for himself or herself.

Depression is about twice as common in women as in men. Changes in the level of hormones in a woman's body may play a part in increasing the amount of depression. For example, women can develop depression after giving birth, when hormonal and physical changes and the new responsibility of caring for a newborn can be very hard.

Men are less likely than women to admit to being depressed, and doctors are less likely to suspect depression in men.

Depression may show up differently in men and women. Women with depression are more likely to feel sad, worthlessness, hopeless, and helpless.

Men are more likely to be very tired, irritable, angry, lose interest in once-enjoyable activities, and have a hard time sleeping.

Men may be more likely than women to turn to alcohol or drugs when they are depressed. They also may become abusive. Some men throw themselves into their work to avoid talking about their depression with family or friends, or behave recklessly.

Depression is not a normal part of aging. Most seniors feel satisfied with their lives, even with having more illnesses or physical problems. But, when older adults do have depression, they may be less likely to admit to feelings of sadness or grief. Sometimes it can be hard to tell the difference between grief from major depression. Grief that lasts for a very long time following a loss may need treatment.

Older adults also may have more medical conditions such as diabetes, heart disease or stroke, which may cause depression. Or they may be taking medicines with side effects that contribute to depression.

E. How Is Depression Diagnosed?

► Talking Points:

The first step in getting treated for depression is a physical examination (exam) by a doctor. Certain medicines and some illnesses, such as a viral infection, can cause the same signs as depression.

A doctor can rule out other things with a complete exam and lab tests.

Once the doctor has ruled out any other illness, the next step is usually a psychological (relates to the mind or emotions) evaluation. The doctor may do this evaluation, but more likely he or she will have the patient see a psychiatrist or psychologist. A psychiatrist is a doctor with a medical degree

and can prescribe medicine. A psychologist has a degree in psychology from a college or university and cannot prescribe medicine.

A good evaluation will include a complete history of signs of depression. The doctor usually asks the patient:

When did the signs start?

How long do they last?

How bad are they?

Have you had them before? If so, were they treated?

How were they treated?

The doctor will ask about alcohol and medicine taken and whether the patient has thoughts about death or suicide.

The doctor will also ask questions about family history: Have other family members had depression? Were they treated? If so, what worked for them?

F. How Is Depression Treated?

► Talking Points:

There are two common types of treatment for depression:

- Medicine.
- “Talk” therapy.

Patients should ask the doctor which type is best for them. Some people need both treatments to feel better.

Medicine:

Medicines for depression are called “antidepressants.” Your regular doctor or a psychiatrist (a medical doctor trained in helping people with depression) can prescribe them for you. Antidepressants may take a few weeks to work. Be sure to tell the doctor how you are feeling during that time. If you are not feeling better after a few weeks, your doctor may have you try different medicines to find out what works best for you.

Medicines sometimes cause unwanted temporary “side effects.” You may feel jittery or sleepy, or have worsening depression, suicidal thinking or behavior, or not want to interact with people. Tell the doctor if you have these or any other side effects. Also, if one medicine does not work, you should ask your doctor if you can try another medicine. Never stop taking an antidepressant without talking to the doctor about how to do it safely.

All antidepressants must be taken for at least 4 to 6 weeks before they have a full effect. You should keep taking the medication, even if you are feeling better, to prevent the depression from returning.

Medicines should be stopped only under a doctor's supervision. Some medicines need to be slowly stopped to give the body time to adjust. Although antidepressants are not habit-forming or addictive, suddenly ending an antidepressant can cause withdrawal problems or lead to a return of the depression. Some people, such as those with continual depression, may need to stay on the medication a longer time.

You should not use alcohol or street drugs because they may cause the antidepressants not to work as well.

The latest information on medications for treating depression is available on the U.S. Food and Drug Administration (FDA) website <http://www.fda.gov/>

Talk Therapy

“Talk” therapy involves talking to a health care professional, such as a psychologist, a social worker, or a counselor. This therapy helps you learn to change the way depression makes you think, feel, and act. Ask your doctor or psychiatrist which professional you should go to for talk therapy.

Depression can make a person feel very tired, worthless, helpless, and hopeless. Such negative thoughts and feelings make some people feel like giving up. It is important to know that these negative views are part of the depression. In the meantime there are things you can encourage a person with depression to do

- Set realistic goals and take a reasonable amount of responsibility.
- Break large tasks into small ones, do what is most important, and do what you can as you can.
- Try to be with other people and to confide in someone; it is usually better than being alone.
- Take part in activities that may make you feel better.
- Be physically active, going to a movie, a ballgame, or taking part in religious, social, or other activities may help.
- Expect your mood to improve slowly, not immediately. Feeling better takes time.
- People rarely “snap out of” a depression. But they can feel a little better day-by-day.

- Remember, positive thinking will replace the negative thinking that is part of the depression and will disappear as your depression responds to treatment.
- Let your family and friends help you.

The most important thing anyone can do for the depressed person is to help him or her get a diagnosis and treatment.

If the person does not have a family doctor, CHWs can help by telling him or her about community mental health centers, family services, social agencies, or clergy that can help. You can encourage the person to stay with treatment until he or she feels better (it may take several weeks), or to talk to his or her doctor about a different treatment.

Sometimes you might need to make an appointment and go with the depressed person to the doctor.

It may also mean checking on whether or not the depressed person is taking medication.

You should encourage the depressed person to follow the doctor's advice about the use of alcohol while on medicine.

The second most important thing is to offer emotional support. This involves understanding, patience, and encouragement.

Don't ignore remarks about suicide. Report them to the depressed person's doctor and family.

Invite the person for walks, outings, to the movies, and other activities that they used to enjoy. But don't push the depressed person to undertake too much too soon.

Do not accuse the depressed person of faking illness or of laziness, or expect him or her "to snap out of it."

Eventually, with treatment, most people do get better. Keep that in mind, and keep telling the depressed person that, with time and help, he or she will feel better.

G. What Do Depression and Stress Have to Do with Heart Disease and Stroke?

► Talking Points:

First, let's talk about depression. Depression can happen to anyone. But, we know from research that people with heart disease are more likely than healthy people to suffer from depression.

We know, too, that people with depression have a greater risk for developing heart disease.

Also, people with heart disease who are depressed have a greater risk of dying after a heart attack and stroke than those who are not depressed.

Ask

Why do you think this is true?

► Talking Points:

Remember, depression can make it hard to function in everyday life. Depression makes it hard to care about taking medicine or to remember to take medicine.

Making lifestyle changes such as increasing physical activity, eating healthy foods, and quitting smoking can seem impossible to someone suffering from depression.

Depression may affect heart rhythm, increase blood pressure, and affect the blood's clotting ability. Depression can also lead to higher blood sugar and blood cholesterol levels. These risk factors, together with being overweight, often predict heart disease.

Despite research showing a link between depression and heart disease, depression often is not diagnosed and is left untreated. Persons with heart disease or stroke, their families and friends, and sometimes even their doctors may not see the signs of depression, or may mistake them for the usual feelings that are a part of heart disease or stroke. Many signs of depression are like those of heart disease and other illnesses. Doctors trained to see the signs of depression know the right questions to diagnose depression and can treat the person for it.

Many people who have had a stroke become depressed. Some of the depression may be due to changes in the brain. But most people who survive a stroke become depressed because of the changes in their lives. For example, they may not be able to talk well or to take care of themselves.

Caregivers and CHWs can encourage these stroke survivors to spend time with family and friends, do things they used to enjoy, and take part in stroke rehab and treatment for depression because the more people recover the better they will feel.

Activity 6–2 Signs of Depression CHWs can watch for signs of depression in people with heart disease or those who have had a stroke and can encourage them to get treatment. If a CHW is helping a patient and suspects depression, he or she should let the patient’s nurse or doctor know. Ask the CHWs to role-play and take turns being a CHW and a community member with signs of depression. How would they encourage the community member to consider seeing a doctor?

Activity 6–3 Four Steps to Understanding Depression and Getting Help for Depression CHWs can give this checklist to people with heart disease to help them identify depression in themselves and others and to see that there is help for depression. Ask the CHWs to role-play and take turns playing a CHW and community member who appears to be depressed. How can they help people understand that depression is a real illness, but that there is hope for feeling better.

► **Talking Points:**

Remember, we defined stress as “mental tension.” But studies have shown that when people have mental stress or tension, blood flow to the heart can decrease.

People who have reduced blood flow to the heart during mental stress are more likely to have reduced blood flow to the heart during everyday activities. They are also more likely to have heart problems, such as angina and repeat heart attacks. They might even need heart surgery.

(Note to Trainer: You may need to do a quick review of angina. See Chapter 3: Heart Attack.)

There is good news. People do get better when they get help in reducing their stress.

Post-test Questions

Circle letters for ALL correct answers. A question may have more than one correct answer.

1. What are some signs of stress?

- a. Feeling anxious.
- b. Feeling tense.
- c. Feeling excited.
- d. Feeling worried.

2. What are ways to cope with stress?

- a. Schedule regular times for healthy and relaxing activities.
- b. Keep your problems to yourself.
- c. Don't use smoking, overeating, drinking, and illegal drugs.
- d. Be physically inactive.

3. What are signs of depression?

- a. Hard to focus; forgetful.
- b. Thoughts of suicide.
- c. Likes talking to people.
- d. Anger.

4. What are ways to manage depression?

- a. See your doctor.
- b. Take antidepressant medicines.
- c. Don't ask for any help from anyone.
- d. Go to talk therapy.

Correct test answers:

1. a, b, d

2. a, c

3. a, b, c

4. a, c, d

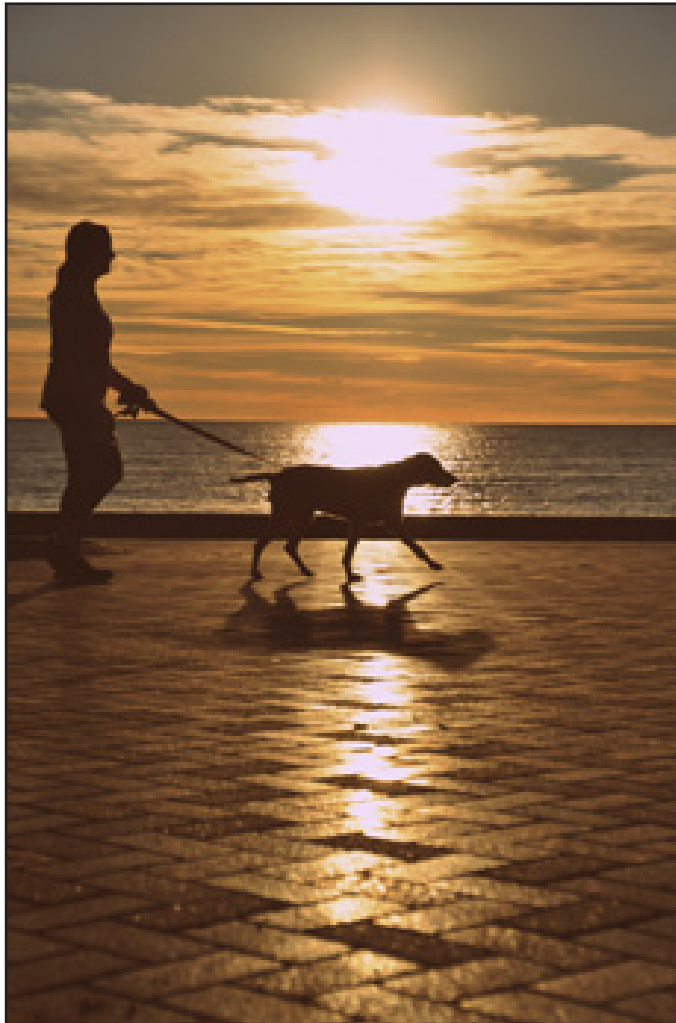
How can I Cope with Stress?

Activity 6–1

The effects of stress tend to build up over time. Taking practical steps to maintain your health and outlook can reduce or prevent these effects. The following are some tips that may help you to cope with stress

- Get help from a mental health care provider if you are overwhelmed, feel you cannot cope, have suicidal thoughts, or are using drugs or alcohol to cope.
- Get care for existing or new health problems.
- Stay in touch with people who can provide emotional and other support. Ask for help from friends, family, and community or religious organizations to reduce stress due to work burdens or family issues, such as caring for a loved one.
- Learn signs of your body's response to stress, such as difficulty sleeping, increased alcohol and other substance use, being easily angered, feeling depressed, and having low energy.
- Decide what must get done and what can wait, and learn to say no to new tasks if they are putting you into overload.
- Note what you have done at the end of the day, not what you have been unable to do.
- Don't get stuck on problems. Get help from mental health professional who can guide you. Ask your doctor, your spiritual leader or a hospital social worker, family, friends, or CHWs for referrals.
- Talk with family, friends, clergy or other trusted advisers about your concerns and stresses and ask for their support.
- Be physically active—at least 150 minutes a week of walking can help boost mood and reduce stress. Do other things you enjoy, like swimming, running, walking a pet, or cycling. Check with your doctor to see what activity level is right for you.
- Schedule regular times for healthy and relaxing activities.
- Explore stress coping programs, which may include meditation, yoga, tai chi, or other gentle exercises.
- Take 15 to 20 minutes a day to sit quietly, breathe deeply and think of a peaceful scene.
- Learn to accept things you can't change. You don't have to solve all of life's problems.
- Count to 10 before answering or responding when you feel angry.
- Don't use smoking, drinking, overeating, drugs or caffeine to cope with stress. These habits make things worse.

- Look for the good in situations instead of the bad.
- Think ahead about what may upset you and try to avoid it. For example, spend less time with people who bother you. If you're still working or volunteering, cut back on your hours and adjust your schedule to avoid driving in rush-hour traffic.
- Plan useful solutions to your problems. For example, talk with your neighbor if the barking dog next door bothers you.
- Learn to say no. Don't promise too much. Give yourself enough time to get things done.
- Join a support group...maybe for people with heart disease, for women, for men, for retired persons, or some other group with which you identify.



Signs of Depression

Activity 6–2

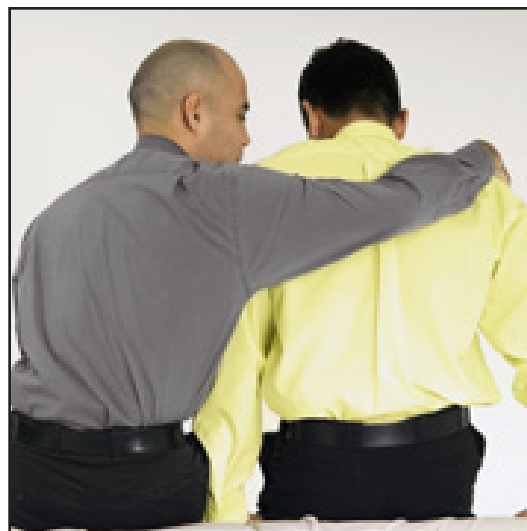
- Constant sad, anxious, or “empty” mood.
- Feelings of hopelessness or negativity.
- Feelings of guilt, worthlessness, or helplessness.
- Loss of interest or pleasure in hobbies and activities that you once enjoyed.
- Less energy, very tired, or feeling “slowed down”
- Hard time concentrating, remembering, or making decisions.
- Trouble falling asleep, waking up too early in the morning, or oversleeping.
- Changes in appetite or weight.
- Restlessness or irritability.
- Continuing headaches, pain, or digestive problems that don’t get better with treatment.
- Thoughts of death or suicide, or suicide attempts (person should get immediate medical help).

If you have five or more of these symptoms every day for at least two weeks, and if they get in the way of your regular daily activities, such as work, self-care, childcare, or social life, ask to be checked for depression.

Suicide

Sometimes depression can cause people to feel like killing themselves. **If you are thinking about killing yourself or know someone who is talking about it, get help**

- Call 9-1-1.
- Go to the emergency room of the nearest hospital.
- Call and talk to your doctor now.
- Ask a friend or family member to take you to the hospital or call your doctor.




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Four Steps to Understand and Get Help for Depression

Activity 6–3

STEP 1: Look for signs of depression

Read through the following list. Put a checkmark  by each one that sounds like you:

- I am really sad most of the time.
- I don't enjoy doing the things I've always enjoyed doing.
- I don't sleep well at night and am very restless.
- I am always tired. I find it hard to get out of bed.
- I don't feel like eating much.
- I feel like eating all the time.
- I have lots of aches and pains that don't go away.
- I have little or no sexual energy.
- I find it hard to focus and am very forgetful.
- I am mad at everybody and everything.
- I feel upset and fearful, but can't figure out why.
- I don't feel like talking to people.
- I feel as if there isn't much point to living. Nothing good is going to happen to me.
- I don't like myself very much. I feel bad most of the time.
- I think about death a lot. I even think about how I might kill myself.



If you checked several boxes, call your doctor. Take the list to show the doctor. You may need to get a checkup and find out if you have depression.

STEP 2: Understand that depression is a real illness

Depression is a serious medical illness that involves the brain. Depression is not something that you have “made up in your head.” It’s more than just feeling “down in the dumps” or “blue” for a few days. It is feeling “down” and “low” and “hopeless” for weeks at a time.

It can happen to anyone, no matter what age you are or where you come from.

Depression can make it very hard for you to care for yourself, your family, or even hold down a job. **But there is hope. Depression can be treated and you can feel better.**

STEP 3: See your doctor

- Don't wait. Talk to your doctor about how you are feeling.
- Ask if you need to see someone who can evaluate and treat depression.
- If you don't have a doctor, check your local phone book, or go on-line. Go to the government services pages and look for "health clinics" or "community health centers." Call one near you and ask for help.

STEP 4: Get treatment for your depression

- You **can** feel better.
- Your doctor will work with you to treat your depression. You may need a medicine called an “antidepressant” or you may need to talk to a mental health professional who will help you learn to change how depression makes you think, feel, and act. Some people need both treatments to feel better.



How to Help Someone Who May Have Depression

If you know someone who seems depressed and may need help, here are some things you can do

- Talk to him or her, and listen carefully.
- Tell the person that you are concerned about him or her.
- Offer emotional support, understanding, patience, and encouragement.
- Never dismiss feelings, but point out what is real and offer hope.
- Never ignore talk about suicide, and tell the person's therapist or doctor.
- Invite the person out for walks, outings and other activities. Keep trying if he or she says no, but don't push him or her to take on too much too soon.
- Talk to the person about seeing a doctor and help the person make an appointment.
- Take the person to see the doctor.
- "Be there" for the person after he or she starts treatment.
- Remind the person that with time and treatment, the depression will lift.



How can I help myself if I am depressed?

If you have depression, you may feel exhausted, helpless, and hopeless. It may be very hard to take any action to help yourself. But as you begin to become aware of your depression and begin treatment, you will start to feel better.

To Help Yourself

- Do not wait too long to get evaluated or treated.
- Try to be active and exercise. Go to a movie, a ballgame, or another event or activity that you once enjoyed.
- Set realistic goals for yourself.
- Break up large tasks into small ones, and do what you can as you can.
- Try to spend time with other people and confide in a trusted friend or relative. Try not to isolate yourself, and let others help you.

- Expect your mood to improve gradually, not immediately. Do not expect to suddenly “snap out of” your depression. Often during treatment for depression, sleep and appetite will begin to improve before your depressed mood lifts.
- Put off important decisions, such as getting married or divorced or changing jobs, until you feel better. Talk about your decisions with others who know you well.
- Remember that positive thinking will replace negative thoughts as your depression responds to treatment.
- Keep learning more about depression.



Objectives

- By the end of this session, community health workers (CHWs) should be able to do everything in the list below
- Explain high blood pressure.
- Say what causes high blood pressure.
- Say how high blood pressure can be prevented or controlled.
- Say what blood pressure numbers mean.
- Measure and record blood pressures.
- Tell people where in the community they can get their blood pressures checked.
- Tell people about ways to treat and control high blood pressure.
- Share the ways that CHWs can help support people who are at risk for high blood pressure or who already have high blood pressure.
- With practice, be able to take blood pressure measurements on manual and automatic blood pressure monitors.

Note to trainer: The directions for measuring blood pressure follow the American Heart Association method; please see Appendix A.

Activities:

- 7–1. What Are Some Good Habits That Keep People Healthy and Can Prevent High Blood Pressure or Lower It if It Is Already Too High?
- 7–2. Healthy Habits – Take Steps to Prevent and Control High Blood Pressure
- 7–3. Get the Facts: Sources of Sodium in Your Diet
- 7–4. What Do Blood Pressure Numbers Mean? Other Questions to Ask Your Doctor
- 7–5. My Blood Pressure Wallet Card
- 7–6. Measuring Blood Pressure with a Manual Monitor
- 7–7. Measuring Blood Pressure with an Automatic Monitor
- 7–8. Where Are the Errors?
- 7–9. Tips for Taking Medicine for High Blood Pressure
- 7–10. What Community Health Workers Can Do (with Program Support) to Help Community Members Who Are at Risk for High Blood Pressure and to Help Community Members Who Already Have High Blood Pressure (with Program Support)
- 7–11. Blood Pressure Fotonovela and Guide

Chapter Outline:

- A. What Is Blood Pressure? Why Is High Blood Pressure Harmful?
- B. What Causes High Blood Pressure?
- C. What Do Blood Pressure Numbers Mean?
- D. How Do You Know if You Have High Blood Pressure?
- E. Where Can You Get Your Blood Pressure Checked in the Community?
- F. How Do You Measure Blood Pressure?
 - Things to Consider BEFORE Measuring Someone's Blood Pressure
 - How to Measure Blood Pressure Using a MANUAL Blood Pressure Monitor
 - How to Measure Blood Pressure Using an AUTOMATIC Blood Pressure Monitor, including a Home Monitor
- G. How Is High Blood Pressure Treated?
- H. What Can Community Health Workers Do to Support People at Risk for High Blood Pressure or Who Already Have High Blood Pressure?

Pretest Questions

Circle the letters for ALL the correct answers in questions 1–6.
A question may have more than one answer.

1. Which of the following statements about high blood pressure is FALSE?

- a. Doctors can easily detect high blood pressure because it has many symptoms.
- b. High blood pressure is a major risk factor for heart disease and stroke.
- c. High blood pressure causes the heart to become weaker.
- d. High blood pressure damages the walls of the arteries.

2. The best ways to lower high blood pressure include

- a. Eating healthy foods that are low in sodium.
- b. Not smoking.
- c. Getting to and keeping a health weight.
- d. Being moderately to vigorously active for at least 150 minutes each week.
- e. Taking your blood pressure medicine as your doctor advises.
- f. Limiting the amount of alcohol you drink.

3. The normal blood pressure in adults is

- a. Less than 120/80 mm Hg.
- b. Less than 150/90 mm Hg.
- c. Less than 160/99 mm Hg.

4. Which of the following situations can cause a false reading of high blood pressure?

- a. The client's legs are crossed.
- b. The client has been waiting in a chair for 5 minutes or longer.
- c. The blood pressure cuff is too small.
- d. The arm to be used for taking the blood pressure has been resting on the arm of a chair.
- e. Telling the client that he or she will feel some pressure on the arm being used to take the blood pressure.
- f. The client needs to use the bathroom.
- g. The client is talking while the blood pressure is being measured.

5. What is the most common mistake people make when taking a blood pressure?

- a. Using a cuff that is not the right size for the person's arm.
- b. Not determining how much the cuff should be inflated.
- c. Rounding up to even numbers that can be divided by 10. For example, the blood pressure is 138/78, but the CHW rounds it up to 140/80.
- d. Not matching the index line on the blood pressure cuff to the right place on the arm.

6. When can people stop taking medicines that lower their blood pressure?

- a. When they are feeling well.
- b. If they forget to get a refill of their medicine.
- c. When they do not see a doctor, nurse, or CHW for several months.
- d. When their doctor tells them to stop taking their medicine for high blood pressure and does not put them on a new one to control their blood pressure.

► Talking Points:

High blood pressure is very common. Nearly 1 out of every 3 adults has high blood pressure.

Unfortunately, only about half of all people with high blood pressure have it under control.

This chapter will teach you about blood pressure, why high blood pressure is harmful, what the risk factors for high blood pressure are, and how to measure and record blood pressure—using two kinds of blood pressure monitors. You will use this information and your new skills to help community members become aware of blood pressure, to encourage these men and women to visit a health care provider, and to take action to prevent or control their high blood pressure.

A1. What Is Blood Pressure?

Blood pressure is the force of blood pushing against the walls of your arteries as the heart pumps blood through these blood vessels. If this pressure goes up and stays high over time, it can harm the body in many ways.

A2. Why Is High Blood Pressure Harmful?

High blood pressure means that the heart has to pump harder than normal for blood to get to all parts of the body. Often the heart must work harder if the arteries are too narrow or stiff or there is too much fluid in the body. If high blood pressure is not treated, the heart has to keep working harder than it should. The harder the heart has to work, the higher the blood pressure. A heart gets larger and weaker if it works harder than normal for a long time.

High blood pressure is also called **hypertension**.

When your blood pressure is high

- You are 4 times as likely to die from a stroke as are people with normal blood pressure.
- You are 3 times as likely to die from heart disease as are people with normal blood pressure.

► Talking Points:

One in three Americans has high blood pressure, a leading cause of heart attacks and strokes, but only half of them have it under control.

People can have high blood pressure for years without knowing it. This is because there are usually very few signs that let people know their blood pressure is high. While the blood pressure is high it can damage the heart,

arteries, kidneys, brain, eyes, and other parts of the body. Measuring blood pressure is both quick and very simple. In fact, measuring the blood pressure is one of the easiest and most often used ways to keep track of an important part of a person's health.

Everyone should know their blood pressure numbers, even when they are feeling fine. If their blood pressure is normal, they can work with their health care team to keep it that way. If their blood pressure is too high, there are ways to lower it to prevent more damage to their bodies or at least to reduce that damage.

As a valuable member of your community and of the health care team, you have a central role in teaching people about high blood pressure, in helping them to prevent high blood pressure, and to control it if they already have this problem.

B. What Causes High Blood Pressure?

A number of factors can lead to high blood pressure. Sometimes, high blood pressure is caused by other medical problems, such as kidney disease. But for many people unhealthy lifestyle habits can lead to high blood pressure.

What Are the Risk Factors for High Blood Pressure?

A risk factor is a condition or habit that makes a person more likely to have a disease or condition. For high blood pressure, there are several risk factors.

► Talking Points:

When you meet with community members, make sure to talk with them about risk factors. Some risk factors for high blood pressure cannot be changed, such as older age and family history. It is still important to know about these risk factors. The good news is that people can prevent or lower their risk for heart disease and stroke by choosing healthy lifestyle habits, or healthy ways to live.

The earlier someone chooses to begin healthy lifestyle habits, the better, because heart disease, even high blood pressure, can begin to develop in childhood. It is always good to encourage people of all ages to lead healthy lifestyles to reduce their risk of heart disease and other illnesses.

Activity 7-1: What Are Some Good Habits That Keep People Healthy and Can Prevent High Blood Pressure or Lower It if It Is Already too High?

Have each of the CHWs draw a circle and put her/his name in the middle. Then ask each one to think of good habits. Have them draw petals around the circle to make a flower. On each petal the CHW can add one healthy habit to make this a “healthy habit flower.” When all the CHWs are finished, ask them to share what’s on their flower petals. Or, a small group of CHWs can work together on one flower.

Examples of good habits include the following

- Eat a healthy diet that is low in sodium and includes fruits and vegetables, whole- grain bread and pasta, low-fat dairy and lean meats, chicken and fish.
- Aim for a healthy weight.
- Be active at least 150 minutes each week (by doing housework, raking leaves, dancing, walking, playing sports, or doing some other continuous activity).
- Limit the amount of alcohol you drink (no more than one drink each day for women and two for men).
- Quit smoking or using other kinds of tobacco. If you don’t smoke, don’t start.
- Set small goals for yourself so that you can see your success.
- Keep your blood sugar under control if you have diabetes or kidney disease.
- Take your prescription medicines each day and follow the directions on the bottle. If your blood pressure is still not under control or if you have any problems with the medicine, talk with your doctor, nurse, or pharmacist about possibly changing your medicine.
- Use pillboxes to help you keep track of the medicines you take. Keep the pillboxes where you can easily see and use them.
- Check your blood pressure as often as your doctor advises and write down your blood pressure numbers.

► Talking Points:***Review and Talk about Risk Factors:***

There are several important risk factors for high blood pressure

- Too much sodium in the diet. Sodium is part of salt and is used to add flavor to food, but most Americans take in more sodium than their bodies need. Too much sodium can make your body hold on to fluids, and that can increase blood pressure. Also, some people are very sensitive to sodium. Daily intake of sodium for people without high blood pressure should not be more than 2,300 milligrams (mg), or about 1 teaspoon (use a teaspoon from a set of measuring spoons).
- Daily sodium in the diet should not be more than 1,500 mg, or about $\frac{3}{4}$ teaspoon of sodium, for those age 51 years or older, African Americans of any age, or people who already have high blood pressure, diabetes, or kidney disease. Because foods that are not made at home can contain so much sodium, members of the health care team need to help patients learn how to read the nutrition labels on foods and meals they buy in a store. In addition, they need to help patients learn how to follow a low-sodium eating plan that works. The DASH (Dietary Approaches to Stop Hypertension) eating plan is a good one to follow. For more details, please see this website:
<http://www.nhlbi.nih.gov/health/health-topics/topics/dash/>.
- Being overweight or obese. People who are overweight or obese are more likely to have high blood pressure than are those who have a normal weight. The more you weigh, the more blood your body needs, and this leads to more pressure on the walls of your arteries.
- Lack of physical activity. People who are not very active tend to become overweight. Being active will help you get to a healthy weight, look and feel better, get around more easily, and can even help you prevent diabetes and other diseases. Check with your doctor about the best activities for you.
- An adult should have at least 150 minutes of moderate-to-vigorous physical activity a week. You can start with just 10 minutes a day before aiming higher.
- Children and teens should have at least 60 minutes of physical activity a day. Being active at a moderate level means that you can talk to others easily during the activity. If you become too out of breath to talk to others, your level of activity is vigorous, not moderate.
- Being sedentary. Even if you are active in other ways, sitting for a long time puts you at risk for high blood pressure. If you are sitting for an hour or more, walk around for at least 5 minutes every hour.

- Drinking too much alcohol. Drinking alcohol damages the artery walls, and so if you drink alcohol, you must drink wisely. For men, that means two drinks a day at most, and for women, one drink a day at most. One drink is 1 oz. of hard liquor, 4 oz. of wine, or 12 oz. of beer.
- Being African American/Black. African Americans develop high blood pressure more often than whites, and African Americans tend to get this problem at an earlier age and at a more serious level. African Americans should get their blood pressure checked regularly.
- Smoking or chewing tobacco. Both of these behaviors damage the walls of your arteries. If you don't smoke, don't start. If you do smoke or chew tobacco, stop as soon as you can. If you need help in stopping, ask your doctor or nurse.
- Having diabetes or kidney disease. People who have these diseases are more likely to have high blood pressure than those who don't have these problems. This means people who have diabetes or uncontrolled high blood pressure should have a test for kidney function every year.
- Being older. Usually, the older you get, the greater your chance of developing high blood pressure.
- Being a man age 35 or over, or a woman 55 or over. Men seem to develop high blood pressure most often between age 35 and 55, but after age 65, high blood pressure is much more common in women than in men.
- Having a family history of conditions that increases your risk. If your parents or other close relatives have high blood pressure, heart disease, or diabetes, you are more likely to develop it yourself. Beyond family history, if you have poor lifestyle habits you are more likely to develop high blood pressure.
- Being under too much stress. People who are under too much stress often find that their blood pressure goes up.
- Not taking your prescription medicines as your doctor advises. If you stop taking your medicines, your blood pressure will no longer be under control, and you put yourself in danger.
- Not changing unhealthy habits. Changing your unhealthy habits is key for people who have the risk factors for high blood pressure, for high blood cholesterol, or for diabetes. It is important for these people to take their doctor's advise and take medicines that the doctor may prescribe for them.

Invite the CHWs to talk about some of the most important ways people can prevent high blood pressure or control their blood pressure if it is already high. Ask the CHWs how they can help community members to develop healthy habits and to make better choices in buying foods that are lower in sodium to help lower their blood pressure numbers. Give out the handouts, review their highlights.

Activity 7-1. What Are Some Good Habits That Keep People Healthy and Can Prevent High Blood Pressure or Lower It if It Is Already Too High?

Activity 7-2. Healthy Habits—Take Steps to Prevent and Control High Blood Pressure

Activity 7-3. Get the Facts: Sources of Sodium in Your Diet

http://www.cdc.gov/salt/pdfs/sources_of_sodium.pdf

C. What Do Blood Pressure Numbers Mean?

► Talking Points:

A person's blood pressure is written in two numbers, with a line between the two. For example, 115/70 is read as "115 over 70." The systolic (top) number is the peak blood pressure when the heart is beating or squeezing out blood. The diastolic (bottom) number is the pressure when your heart is filling with blood or resting between beats. The systolic number is always higher than the diastolic number.

For adults, a systolic blood pressure of less than 120 or a diastolic pressure of less than 80 is best. If your adult patients have blood pressure numbers in this range, tell them to keep up the good work.

If a person has a systolic pressure of 120–139, or a diastolic pressure of 80–89, make sure to talk with them about making healthy food and lifestyle choices that might help them lower their blood pressure. You can suggest that this person follow up with the health care team.

Activity 7-4. What Do Blood Pressure Numbers Mean? Other Questions to Ask Your Doctor

Review the handout titled What Do Blood Pressure Numbers Mean? Ask the CHWs to role-play. Give them sets of systolic and diastolic numbers and have them explain to a partner in the class what the blood pressure numbers mean.

Ask the CHWs if they can think of questions people might want to ask their doctors about measuring their blood pressure at home. Then review “Other Questions To Ask Your Doctor” and have the CHWs write down some questions that are not on the sheet.

► **Talking Points:**

If a person has a systolic pressure of 140 or higher or a diastolic pressure of 90 or higher, make sure to talk with him or her about how important it is to make an appointment with their health care provider for follow-up. Also, encourage them to make healthy food and lifestyle choices to help them lower their blood pressure.

Sometimes a person can have a blood pressure so high that they need to get help right away. If you measure someone’s blood pressure and find that the systolic number is 160 or greater or the diastolic number is 100 or greater, advise that person to call his/her health care provider immediately. If they do not have a doctor, nurse, or clinic they can call, use your community resources to help them find a medical provider who can help them.

People who have diabetes should talk to their doctor about the goals for their blood pressure numbers.

Important Message: After you have taken a person’s blood pressure and found it to be high, please do not tell that person that he or she has high blood pressure. Instead, if you are working in a clinic, record the person’s blood pressure numbers in the chart with a note to alert the doctors or nurses. If you are working in the community, find out if the person has a doctor or clinic they go to, and follow up to see if she or he has actually gone to see the doctor or clinic. Note that if you tell the person that you are willing to go with them on the visit that might encourage them to go. If a person’s numbers indicate high blood pressure but they have no doctor or clinic to visit, use your community resources to help them find one.

Activity 7-5 My Blood Pressure Wallet Card It is important to know your blood pressure numbers. In fact, you should know your numbers as well as you know your own shoe size.

Be sure to ask what your numbers are each time someone takes your blood pressure. Also, keep a record of the numbers whether you or someone else checks your blood pressure. Handout 7-5 is a handy wallet card on which to write down your numbers. You may want to give copies of the card to others in the community, and copies of the card can be ordered (please see Appendix A). The card can be found on the Internet at:

http://millionhearts.hhs.gov/Docs/BP_Toolkit/BP_Wallet_Card.pdf

D. How Do You Know if You Have High Blood Pressure?

► Talking Points:

Usually people who have high blood pressure do not know it. That is why high blood pressure is called the “silent killer.”

Your doctor or nurse will measure your blood pressure as part of a regular exam and also during most visits.

If your blood pressure is high, your doctor will ask extra questions. For example, your doctor will ask whether high blood pressure runs in your family and what your eating habits are. It is important to let your doctor know if you add salt to foods at the table, cook with a lot of salt, eat a lot of canned foods and boxed foods, eat a lot of frozen dinners, or eat salty chips and nuts often. Your doctor will also want to know about other conditions that might increase your risk of high blood pressure even more, like diabetes or high cholesterol.

E. Where Can You Get Your Blood Pressure Checked in the Community?

► Talking Points:

You can get your blood pressure checked, or you can check it yourself, at many places in your community. Some examples are shown below

- A blood drive or donation center (if you donate blood during a blood drive, the staff will check your blood pressure).

- A grocery store or drugstore (you can use a blood pressure machine in the store to check your blood pressure yourself). A health fair (nurses or other staff will be available to check your blood pressure). A health clinic (nurses or other medical staff will be on hand to check it). The fire department (a medically trained person can check it). A senior center (a trained person at the center can check in the community or in clinics, a trained community health worker can check your blood pressure).

One way for people to monitor their blood pressure is to get a monitor and use it at **home**. You can buy easy-to-use monitors in drugstores and in the pharmacy section of large discount stores. Ask the pharmacist about options if you need help paying for the monitor. As a community health worker, you can help people by telling them about any community resources to help them cover the cost.

(Note to trainer: Please identify places in your community that offer free or low-cost blood pressure screenings and monitors and let the CHWs know about these places).

F. How Do You Measure Blood Pressure?

► Talking Points:

Blood pressure measurement is quick and painless, and you do not need to take any blood from the person.

Knowing how to measure blood pressure is a very valuable skill.

We want to make sure the numbers we get are exactly right so that people who need help will get it. It is important for people with high blood pressure to see their doctor or nurse in case they need medicines or other treatments to protect their heart, brain, kidneys, and their very lives. Because even small changes in blood pressure can mean big changes for a person's health, it is important to take the blood pressure the right way.

Knowing how to take a blood pressure and paying close attention to important details every time are both keys to good measurement.

We measure blood pressure with a blood pressure monitor.

All blood pressure monitors have two parts. One part is the blood pressure cuff, and the other part is the dial or monitor that shows the blood pressure numbers.

Different types of blood pressure monitors measure blood pressure in different places: the upper arm, wrist, and finger. We will talk here only about those that measure blood pressure using the upper arm because measurements there are more exact than those using the wrist or finger. The upper arm cuff

measures blood pressure by measuring the blood flow of the brachial artery in the arm.

Now, we will talk about the blood pressure monitors used to measure blood pressure, and then we will take some time to learn how to use them correctly to measure blood pressure and how to practice this skill.

Later, we will talk about how to help community members reach healthy blood pressure numbers and then keep these numbers.

There are two main types of blood pressure monitors, manual and automatic. With a manual monitor, a person needs to operate the pump and use a stethoscope (a listening tool) to get the blood pressure readings. Automatic monitors use batteries or electricity to take and show blood pressure measurements. You will learn how to use both types of blood pressure monitors.

When taking blood pressures manually, the stethoscope lets you hear the sound of blood flowing through the brachial artery of the arm.

► Talking Points:

Things to Consider BEFORE Measuring Someone's Blood Pressure

As a community health worker taking this course, you will be trained in how to take blood pressures only on adults, not children. Taking a blood pressure is a safe and easy way for you to check on someone's health that can be done at every visit.

It is important to remember that it is usually all right to use either arm when taking a blood pressure with an upper arm cuff. If you take a person's blood pressure in both arms and there is often a difference from one arm to the other, however a difference of more than 20 millimeters of mercury (mm Hg) for systolic pressure (top number) or more than 10 mm Hg for diastolic pressure (bottom number) could be a sign of a problem. If this is the case, you should advise the person to talk to his or her doctor about the difference between the arms.

In some cases, however, only one arm should be used. If a person has any of the following things that affect one or both arms, do not take a blood pressure on that arm(s)

- A dialysis shunt (a temporary connection made of plastic tubes that stick out of the arm that make it easy to attach the patient to a dialysis machine) helps patients with certain kinds of kidney problems.
- A history of mastectomy (breast tissue was removed due to a tumor or growth), in which case the arm closer to where the breast was removed should not be used.

- A broken bone in the arm.
- Open wounds on the upper arm in the area where the cuff would wrap.
- Rashes or skin problems in the area where the cuff would wrap.

If a person has any of the items in the list on one side of their body only, you may still measure blood pressure using the other arm. If both arms and sides of the body have these things, however, do not take the person's blood pressure at all during the visit. Instead, you can tell them to see a doctor to have their blood pressure checked.

Keep in mind that a person's blood pressure will in most cases be higher than usual within 30 minutes after exercising, eating a large meal, having a drink that has caffeine, or smoking. All of these things can cause a false high reading. Before taking the blood pressure, ask people if they have done any of these things in the last 30 minutes. If they have, delay taking the blood pressure for 30 minutes.

- Also remember to tell people to use the bathroom if they need to, because having a full bladder can give a false reading of high blood pressure.
- Be sure that people are sitting with their backs supported, with their feet on the ground, and their arm are supported at the same level as their hearts.

How to Measure Blood Pressure Using a MANUAL Blood Pressure Monitor

► Talking Points:

There are many steps to measuring a patient's blood pressure, but it is important to do each and every step correctly to find the right numbers!! The first time you measure a person's blood pressure, measure it in both arms (unless the person has a dialysis shunt, has had a mastectomy, or has a rash or arm injury). In these cases you should use only the arm that is on the other side (for example, away from the breast area where the mastectomy was done). It is common for people to have different readings in their two arms.

If the person is someone whose measurements are different in one arm than in the other, use the higher reading as the "correct" one and use the arm with the higher pressure for every future measurement.

The 10 steps involved in taking a blood pressure manually are as follows

1. Make sure the patient is sitting down with his or her back supported, feet flat on the floor, and relaxed for 5 minutes before you start.

2. Put the person's arm in the right position: the arm should be supported by a table and should be at the same level as the heart.
3. Deflate the blood pressure cuff.
4. Pick the proper size of blood pressure cuff (see Activity 7-6).
5. Put the blood pressure cuff on the patient's arm
6. Put the end of the stethoscope below the cuff on the inside of the elbow. This is where you can easily measure the brachial artery pulse.
7. Inflate the cuff.
8. Deflate the cuff slowly while listening to the sounds of blood flowing.
9. Write down the blood pressure numbers as you hear the sounds change (see Activity 7-6).
10. Remove the cuff from the person's arm.

Activity 7-6 Measuring Blood Pressure with a Manual Monitor

Ask the CHWs to look at the blood pressure monitors and their parts. If you are holding your session in a health care setting, you may choose to train CHWs with your professional monitors. Also, bring one or more automatic blood pressure monitors to class, as well as a stethoscope.

Train the CHWs on how to use the monitors; show them what cuff sizes they should use and how to read and record the systolic and diastolic blood pressure numbers.

Allow the CHWs to help each other put on the correct-size cuff and measure each other's blood pressure. Have each CHW write down his or her numbers on the wallet card.

Review and demonstrate the steps for taking a manual blood pressure with the CHWs.

Have them practice taking each other's blood pressure readings. Observe them to see that they are correctly preparing each other and taking and writing down the blood pressure numbers.

How to Measure Blood Pressure Using an AUTOMATIC Blood Pressure Monitor

► Talking Points

Some people use automated blood pressure monitors, which use batteries or electricity and require fewer steps than a manual blood pressure. Using these automated monitors is now the most common way for people to take their blood pressure outside of the clinic or doctor's office, and often in doctor's offices, too.

As with manual monitors, the first time you measure a person's blood pressure with an automatic monitor, measure it in both arms. Some people have a different pressure in one arm than in the other; if this is the case, use the arm with the higher blood pressure for future measurements. Just remember, you cannot use an arm if the person has a dialysis shunt on that arm, has had a mastectomy on the side of the chest nearer that arm, or has an injury or rash on that arm. In those cases, make sure to use only the other arm.

The basic steps for using automated monitors are listed below. However, because specific instructions will depend on the brand and model, you should read the user's manual for the monitor if you have questions or are not sure how to use it.

1. Make sure that the patient is sitting down correctly (back supported and feet flat on the floor) and is relaxed for 5 minutes before you start.
2. Put the person's arm on a table so that the arm is level with the heart.
3. Put the blood pressure cuff on the person's arm
4. Turn on the monitor and let it inflate.
5. Write down the blood pressure numbers right away.
6. Turn off the monitor and remove the cuff from the person's arm.

Activity 7-7 Measuring Blood Pressure with an Automatic Monitor

With the CHWs, review and demonstrate the steps for taking an automatic blood pressure. Have the CHWs practice taking their own and each other's blood pressure. Observe to see that they are correctly preparing each other, taking the blood pressure readings, and recording them.

Handout 7-8 Where Are the Errors?

Being accurate when taking blood pressures is key! Ask the CHWs what things they think may cause errors when taking blood pressure measurements. Then review “Where Are the Errors?”

For trainers: A “Skills-Testing Trainer Observation Checklist” is available on pages 94–95; it is also available on the Internet at http://here.doh.wa.gov/materials/bp-management-implementation-tool/13_BPtoolkit_E13L.pdf.

Using Home Blood Pressure Monitors**► Talking Points:**

One way people can help improve their own blood pressure is by measuring it at home with a blood pressure monitor. They can measure blood pressure with a small automatic monitor.

They can buy a low-cost home blood pressure machine in many places, including drug stores. Their pharmacist can help them pick the right one.

People should check with their doctor’s office, clinic, or drugstore about buying a blood pressure monitor. They may be able to get help paying for the monitor.

How to pick a blood pressure monitor

Get one that

- is automatic.
- has a cuff that you put around your upper arm.
- has a memory so it can store your blood pressure readings.
- has been tested (look on the box for the letters AAMI, BHS, or EHS).

After people buy a monitor, tell them to be sure to take it with them the next time they go to their doctor’s office or clinic. The doctor or nurse will teach them how to use the monitor. He or she will check it to make sure it is working right. After this first time, people should take their monitor in once a year to be checked by the nurse or doctor.

People should ask about extra help for helping them use the monitor, for keeping track of their blood pressure numbers, to manage their medicines to lower their blood pressure, and to answer their questions. They can ask about

- having regular calls with nurses.
- having regular calls or visits with CHWs/promotores (health promoters)/ community health representatives [CHRs)].
- checking in with pharmacists.
- getting help through your computer or telephone.
- attending small group classes or having a one-on-one session with a nurse about home blood pressure monitoring and various personal changes you can make to improve your health such as stopping smoking, eating better, and moving more (exercise).
- taking advantage of resources in the community, such as by asking questions of staff at the local fire station, using blood pressure monitoring stations in stores, or getting a free blood pressure screening as part of a community service or health campaign.

Resources for Monitoring Blood Pressure at Home

Show videos on the use of home monitors, have different brands of these monitors on hand, demonstrate them, and have CHWs practice taking their own blood pressures and the blood pressure of their partners in the room.

Examples of BP Measurement Videos:

American College of Physicians: <http://www.acponline.org/multimedia/?bclid=782539368001&bctid=756428822001>

American Heart Association: http://www.heart.org/HEARTORG/Conditions/HighBloodPressure/SymptomsDiagnosisMonitoringofHighBloodPressure/Instructional-Video---Monitoring-Blood-Pressure-at-Home_UCM_303324_Article.jsp

G. How Is High Blood Pressure Treated?

► Talking points:

We have talked about how high blood pressure increases your chances of developing heart disease or of having a heart attack, a stroke, heart failure, or kidney failure.

The good news is that high blood pressure can be prevented. But if you do have it, it can be controlled. We have talked about the many things you can do in your daily life to reduce your chances of having high blood pressure and developing the problems listed above.

Some people may be able to manage their blood pressure without using medicines. To do this, they use healthy lifestyle behaviors like being active on a regular basis, eating healthier food that has less sodium, losing weight, and quitting smoking. As a CHW, you can encourage people to make these kinds of changes.

Treating high blood pressure can save your life. If people are not able to lower their blood pressure by making lifestyle changes, their doctor may have them take medicines to help. Several different types of medicine are helpful for high blood pressure.

You can encourage people to do the following

- Take their medicines exactly the way their doctor advises. It is important that they do not skip a dose or take too much of the medicine.
- Let their health care team know if they have any questions or issues with their medicines.
- Check their blood pressure as often as their doctor advises.
- Let their health care team know if they are taking over-the-counter medicines (medicine you can get without a prescription). Some medicines can raise blood pressure and interfere with medicines for blood pressure. These medicines include those that reduce inflammation or swelling (such as ibuprofen), decongestants and other cold remedies, diet pills, and herbs. People should be sure to ask if these and other medicines are safe to take with medicines that lower their blood pressure.

Review the questions at the bottom of the **handout for Activity 7-9 Tips for Taking Medicine for High Blood Pressure**. Ask CHWs why it's important for people to know when to take their medicine, what to eat or drink with it, and if it's OK to take other medicines at the same time. This includes over-the-counter medicines, which they can buy without a doctor's prescription.

H. What Can Community Health Workers Do to Support People at Risk for High Blood Pressure or Who Already Have High Blood Pressure?

► Talking Points:

Because you are a trusted and valued member of your community, the support that you give others can make a huge positive impact on their health! This is true for all community members, not just those who already have high blood pressure. Because promoting heart health and preventing high blood pressure are lifelong processes, you can support community members of all ages in leading healthier lives.

Activity 7–10. What Community Health Workers Can Do (with Program Support) to Help Community Members Who Are at Risk for High Blood Pressure

Ask the CHWs how they can support community members who have high blood pressure. Give them role-playing exercises, with one CHW playing the role of a CHW and another, the role of a community member.

For example

What would a CHW do or say to a person with high blood pressure who

- does not keep appointments to have his or her blood pressure checked.
- stops taking their medicine to control blood pressure.
- is eating food that is very high in sodium.
- does not know his or her goal blood pressure numbers.
- is gaining weight and sitting most of the day.
- thinks high blood pressure is no big deal.

Continue the discussion.

Ask the CHWs how they can help support community members with

- their health needs.
- making better lifestyle choices.
- controlling their blood pressure by having blood pressure checks, taking their medicines, and keeping their medical appointments.

Ask the CHWs to recall what you have talked about. Give them cues for anything they miss.

Good answers could include the following

- Make sure to let adults know that they should be screened for high blood pressure. This is important because many people who have high blood pressure do not know it.
- Urge people to feel comfortable asking their doctor or nurse for (a) a copy of their blood pressure numbers, (b) what their blood pressure numbers mean, and (c) what their goal for blood pressure should be. Likewise, when you take someone's blood pressure, you should write down the numbers for that person and explain to them what their blood pressure values mean.
- Explain to your community members how important it is for them to keep their blood pressure at a healthy level. Tell them that controlling their blood pressure can make them less likely to have a heart attack or stroke. It might also be helpful to teach and remind them that constant high blood pressure can cause damage to many parts of their body, including their heart, brain, kidneys, and eyes.
- Remind people with diabetes that monitoring this condition by controlling their blood glucose and taking their medications is very important. Because diabetes and high blood pressure are both big risk factors for heart disease, people who have both problems need to make especially healthy choices in their lives.
- Refer community members to social workers or agencies that can help them pay for their health care costs or sign them up for programs such as Medicaid.
- Educate people about making lifestyle choices that are healthy for their heart. Some examples are to eat more fruits and vegetables, eat fewer salty and fatty foods, exercise regularly, reach a healthy weight and then maintain it, stop smoking, and limit the intake of alcohol.

- If it is hard to find stores with fresh foods or safe places to be active in your community, consider working with community members and community groups to improve access to these valuable resources.

For people who already have high blood pressure, you can still consider talking to them about all of the things in the list above. Some other things to talk to them about are listed below

- Many people who know they have high blood pressure have seen a doctor for it. They might even be taking medicine for their blood pressure. Make sure to encourage them to continue seeing their doctor as often as the doctor wants.
- Encourage people with high blood pressure to talk with their doctor about (a) how often they should be checking their blood pressure between appointments, and (b) making a plan about what to do if their blood pressure numbers get too high.
- Teach people to keep a log book or wallet card in which they can write down their blood pressure each time they measure it, both at the doctor's office and between visits. They should write down the date and time as well as the blood pressure values. Tell them to bring this log book or wallet card with them when they go to any doctor.
- Remind community members how important it is to take their medicines regularly. This is very important because sometimes people want to stop taking their medicines when they think they have gotten better, but that can have very bad health effects. Blood pressure medicines work only when a person takes them.

Often people need to take blood pressure medicines for the rest of their lives. Just because the blood pressure is controlled while the person is on medication does not mean that they are cured and can stop these drugs – control of the problem tells you only that the medications are working.

So, tell them that they need to keep taking the medicines so that they can remain well. If they still want to stop taking the medicines or have any questions about them, urge them to call their doctor to talk about their concerns.

- Help people keep track of the medicines they are taking; one way is to help them make a list of what medicines they take at what time of the day. Urge them to bring this list with them each time they go to any doctor. Show them how to use a pillbox to keep track of the medicines they are taking.
- Remind people that the two most important things to do if they already have high blood pressure are to (a) take their medications every day, and (b) see their health care provider regularly.

Activity 7-11 How to Control Your Blood Pressure. Ask the CHWs to look at the cast in is this story: the Ramirez family members, the doctor, and the CHW. Let them pick the cast members they would like to be, and let the group perform (read) the fotonovela together. CHWs or trainers may choose to read the text for the narrator. Have everyone do the activities in the fotonovela and compare their answers. If anyone in the group can't read give them another role; maybe they can ask questions to clarify anything they heard. Have fun!

Posttest Questions:

Circle the letters for ALL the correct answers in questions 1–6. A question may have more than one answer.

1. Which of the following facts about high blood pressure is FALSE?

- a. Doctors can easily detect high blood pressure because it has many symptoms.
- b. High blood pressure is a major risk factor for heart disease and stroke.
- c. High blood pressure causes the heart to become weaker.

2. The best ways to lower high blood pressure include the following:

- a. Eating healthy foods that are low in sodium.
- b. Not smoking.
- c. Getting and keeping a healthy weight.
- d. Being active (engaging in moderate to vigorous activity) for at least 150 minutes a week.
- e. Taking your blood pressure medicine as your doctor advises.
- f. Limiting the amount of alcohol you drink.

3. The normal blood pressure in adults is:

- a. Less than 120/80 mm Hg.
- b. Less than 150/90 mm Hg.
- c. Less than 160/99 mm Hg.

4. These things can cause a false reading of high blood pressure

- a. Client's legs are crossed.
- b. Client has been waiting in a chair for 5 minutes.
- c. The cuff is too small.
- d. The client's arm is resting on the arm of a chair.
- e. The client is told that he or she will feel some pressure on the arm that will be used.
- f. The client needs to use the bathroom
- g. The client is talking while the blood pressure is measured

5. What is the most common mistake made when taking a blood pressure?

- a. Using a cuff that is not the right size for a person's arm.
- b. Not determining how much the cuff should be inflated.
- c. Rounding up the value. For example, the blood pressure is 138/78, but the CHW rounds it up to 140/80.
- d. Not matching the index line on the cuff to the right place on the arm.

6. When can a person stop taking medicines that lower blood pressure?

- a. When he or she feels well.
- b. When he or she forgets to get a refill of the medicine.
- c. When he or she does not see a doctor, nurse, or CHW for several months.
- d. If their doctor takes them off the medicine or changes their medicine. Usually, people take medicine for many years—often the rest of their lives—to control their high blood pressure.

Correct Answers to Posttest Questions

1. a

2. a,b,c,d,e,f

3. a

4. a,c,f,g

5. a

6. d

What Are Some Good Habits That Keep People Healthy and Can Prevent High Blood Pressure or Lower It if It Is Too High?

Activity 7-1

Have the CHWs draw a circle and put their names in the middle. Then ask them to think of good habits. Have them draw petals around the circle to make a “healthy habit flower.” On each petal they can add one healthy habit. When all the CHWs are finished, ask them to share what’s on their flower petals. Another approach is to have small groups of CHWs work together on one flower.



To PREVENT high blood pressure

Practice Healthy Habits

Lose weight if you are overweight. Ask your doctor what a healthy weight is for you. Limit the sizes of the portions of food you eat.

Be active. You can walk, dance, use the stairs routinely instead of the elevator, play sports, or do any other activity you enjoy.

Read food labels to find food that is lower in sodium. Buy foods marked “sodium free,” “low sodium,” or “reduced sodium.” Take the salt shaker off the table. Use less sodium in cooking.

Eat more fruits and vegetables, whole-grain breads and cereals, and low-fat dairy products. Eat less food that has saturated and trans fat or cholesterol.

Cut back on alcohol. For men that means no more than two drinks each day. For women that means no more than one drink a day. Pregnant women should not drink any alcohol at all.

Quit smoking.

To LOWER high blood pressure

- 1. Practice healthy habits.**
- 2. Talk with your doctor. Ask what your blood pressure numbers are and what they mean. Ask what your goal numbers should be.**
- 3. Take your medicines the way your doctor advises.**
- 4. Check your blood pressure as often as your doctor advises.**



Get the Facts: Sources of Sodium in Your Diet

Activity 7-3

All across the United States, high sodium intake is a major problem. On average, American adults eat more than 3,300 milligrams (mg) of sodium a day, more than double the recommended limit for most adults. The Dietary Guidelines for Americans, 2010 recommend that Americans aged 2 and up reduce sodium intake to less than 2,300 mg per day. People 51 and older and those of any age who are African Americans or who have high blood pressure, diabetes, or chronic kidney disease—about half the U.S. population and the majority of adults—should further reduce sodium intake to 1,500 mg per day. The vast majority of U.S. adults eat more sodium than they need. Having accurate information about where dietary salt comes from can help Americans stick to the recommendations.

Review this handout and share the facts with community members. Many of them may not know how much sodium is in common foods they eat.

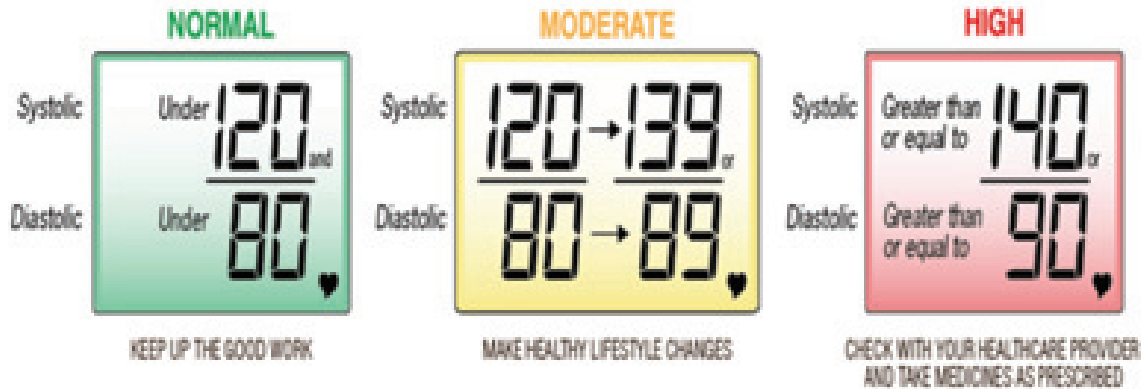
http://www.cdc.gov/salt/pdfs/sources_of_sodium.pdf



What Do Blood Pressure Numbers Mean?

Activity 7-4

Know your numbers and what they mean



If you have diabetes, talk with your doctor about appropriate blood pressure levels.

Blood pressure numbers are millimeters of mercury.

What are your numbers?

First number (systolic pressure): _____

Second number (diastolic pressure): _____

What should your goal numbers be? Ask your doctor.

First number: _____

Second number: _____



Other Questions to Ask Your Doctor

- Can someone show me how to check my blood pressure with my own blood pressure monitor?
- What cuff size should I have on my home blood pressure monitor?
- Can someone show me how to record my numbers after I have checked my blood pressure?
- How often should I check my blood pressure?
- How many blood pressure readings should I take at one time? Should I take just one reading, or should I take three readings and then average them?
- When should I call or e-mail you or the nurse, or other members of my care team, about my blood pressure numbers?
- When should I make an appointment to see you or other members of my care team about my blood pressure numbers?

Source for questions: Martha N. Hill, RN, PhD, Dean and Professor, School of Nursing, Johns Hopkins University, Baltimore, Maryland.



My Blood Pressure Wallet Card

Activity 7-5

It is important to know your blood pressure numbers. You should know your numbers as well as you know your own shoe size.

Be sure to ask what your blood pressure numbers are each time someone takes your blood pressure. Also, keep a record of the numbers whether you or someone else checks it. Handout 7-5 is a handy wallet card for writing down your numbers. You may want to give copies of the card to others in the community, and if you like you can order more copies of the card (please see Appendix A).

Also, the card can be found on the Internet at:

http://millionhearts.hhs.gov/Docs/BP_Toolkit/BP_Wallet_Card.pdf



It is Important To Take Prescribed Blood Pressure Drugs

Ask your health care team to help you fill out the information below.

Blood Pressure Medicine:

.....

.....

.....

Special Instructions:

.....

.....

.....




Questions To Ask Your Health Care Team If You Have High Blood Pressure

- What is my blood pressure reading in numbers?
- What is my goal blood pressure?
- Is there a healthy eating plan that I should follow to help lower my blood pressure and lose weight?
- Is it safe for me to do regular physical activity?
- What is the name of my medication? What is the generic name?
- What are the possible side effects of my medication?
- What time of day should I take my blood pressure medicine?
- Should I take it with or without food?
- What should I do if I forget to take my blood pressure medication at the recommended time?



My Blood Pressure Wallet Card

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institutes of Health
National Heart, Lung, and Blood Institute



Carry This Card To Help Prevent or Control High Blood Pressure

Doctor's Name:



.....

Doctor's Address:


.....

Doctor's Telephone Number:

.....

NIH Publication No. 11-2241
Originally printed November 2009
Revised April 2011




My Blood Pressure Diary

Date/Time	Location	Blood Pressure

My Blood Pressure Goal:

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Lifestyle Changes To Help Reduce High Blood Pressure

Talk with your health care team about the lifestyle changes that are appropriate for you. Check off the lifestyle changes you are going to use to help lower your blood pressure.

MY LIFESTYLE CHANGES

- Maintain a healthy weight.
- Do physical activity for 30 minutes most days of the week.
- Eat a diet high in fresh fruits and vegetables and lowfat dairy products with reduced saturated and total fat.
- Choose foods that are lower in salt and other forms of sodium. Read food labels.
- If you drink alcohol, have no more than one drink a day for women, two drinks a day for men.
- Remember to take your blood pressure medicine.



Measuring Blood Pressure with a Manual Monitor

Activity 7-6

Blood Pressure Monitors

There are two main types of blood pressure monitors: manual and automatic.

- With a manual monitor, a person needs to inflate the cuff with a pump and use a stethoscope (a listening tool) to get the blood pressure readings.
- Automatic monitors use batteries or electricity to inflate the cuff and take the blood pressure measurements and then display them.

You will learn how to use both types of blood pressure monitors.



Stethoscope



Manual Blood Pressure Monitor with Stethoscope

Measuring Blood Pressure with a MANUAL Monitor:

1. Make sure the patient is sitting down and is relaxed.

One of the most important parts of taking a blood pressure is helping the patient to feel comfortable and relaxed beforehand. Being nervous or tense can cause the blood pressure reading to be high. Sit and talk with the person for a few minutes and help them relax before you put on the blood pressure cuff.

Also, posture matters! People should sit in a chair that can support their backs. They should sit straight up with their legs uncrossed and their feet on the floor. There should be an armrest or table on which they can rest their arm when it comes time to take their blood pressure.

2. Expose and position the person's upper arm.

Blood pressure measurements will be more accurate if you place the cuff directly on the patient's skin. If their shirt or blouse is tight, the person may have to take their arm out of the sleeve. If their clothing is very loose, they can roll it up until the upper arm is exposed.

When the upper arm is free of clothing, rest the person's arm on a table or other stable surface with the palm facing upward. The whole arm should be relaxed, and the upper arm should be about at the same level as the person's heart as shown in the picture.

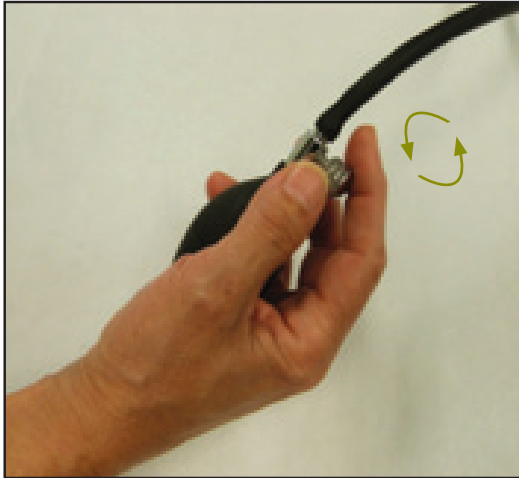


Arm at Correct Position

Before putting the cuff on the patient's arm, make sure that all the air is out of the cuff. To do this, look for the screw valve. Hold the bulb just below the screw valve. Turn the screw valve counterclockwise, and then squeeze the cuff tightly to force out any air.

3. Deflate the blood pressure cuff.

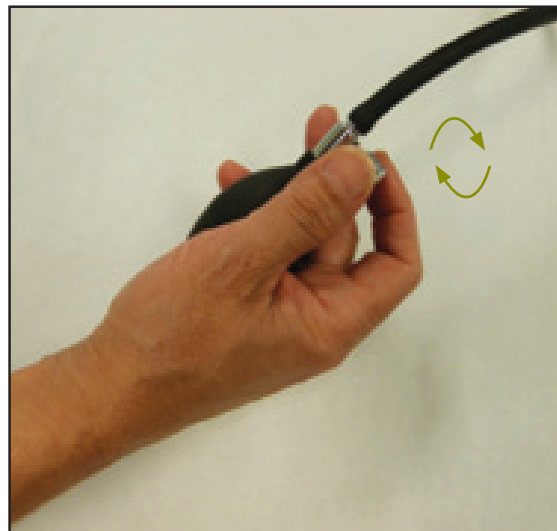
Once you are sure that all the air is out, turn the screw valve clockwise until it is snugly in place.



Valve Closed



**Squeezing
Out the Air**



Valve Open

4. Select the proper size of blood pressure cuff.

Blood pressure cuffs come in several sizes. You need to pick the right size for the person whose blood pressure you are measuring. Using a cuff that does not fit right will not give the correct measurement of their blood pressure. The cuffs have a bulb at one end of the tube that you will squeeze to inflate the cuff.



Different-sized Blood Pressure Cuffs

Most cuffs will have an arrow or index mark near the end of the cuff (viewed lengthwise) on the surface that is facing you as you wrap the cuff around the person's upper arm.

Toward the other end of the cuff (again viewed lengthwise), on the surface facing the patient's skin, there will be another set of markings, called the range.

If the cuff is the right size, the index mark should lie within the range markings after you wrap the cuff snugly around the patient's upper arm. See the picture below.

If the index line passes the range and falls beyond it, the cuff is too large. In that case, find a smaller cuff and try again. On the other hand, the cuff is too small if the index line and range marks never get close enough to overlap. Try a larger cuff size instead.

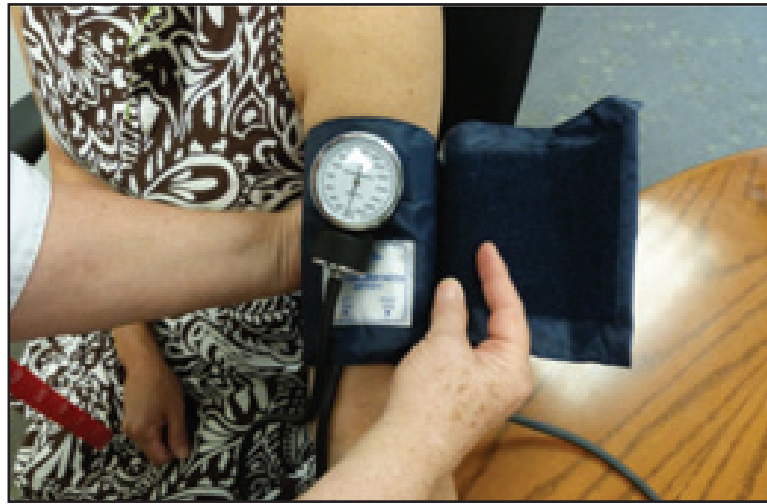
Once you have the correct cuff size, go to the next step, which is applying the cuff to the patient's arm.



Checking if the Manual Cuff is the Right Size

5. Apply the blood pressure cuff to the patient's arm.

Double-check to see that the person's arm is relaxed and slightly bent, resting on a firm surface with the palm facing upward.

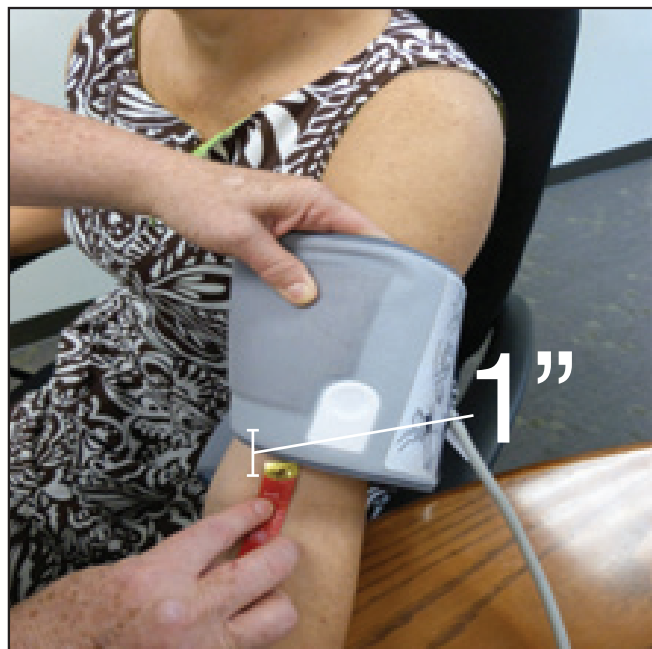


Double-Check for Proper Fit

Wrap the blood pressure cuff snugly around the person's bare upper arm. Double-check to see that the cuff fits properly.

As you wrap the cuff around the patient's arm, make sure that the center of the cuff will fall on the midline of that arm.

The middle of the cuff is usually marked with an arrow or marking along the lower edge of the cuff. This marking often includes the word "artery" or something like that. When the cuff is centered correctly, this marking should lie in the midline of the arm directly above the crease of the person's elbow. In the picture, you can see that the bottom edge of the cuff is an inch or so above the crease of the elbow.



Bottom Edge of Cuff Should Be an Inch above the Crease of the Elbow

You may fasten the cuff after you are sure that the bottom edge is 1 inch above the elbow and the cuff is centered correctly. As you bring the ends over each other, overlap them smoothly so that there are no gaps or large wrinkles in the cuff, and press gently so that the Velcro that lines the inside of the cuff sticks (stays in place).

The cuff should be snug enough that it stays in place and does not slide down the arm. However, you also want to make sure it is not too tight. To test this, make sure you can fit two of your fingers under the edge of the cuff.

Do not inflate the cuff yet.



Test for Tightness



Find the Flow of the Brachial Artery

6. Place your stethoscope where you will be able to hear the sounds of blood flowing

Before placing your stethoscope, you need to find the right location. To do this, you need to find the brachial pulse. The flow of blood (the pulse) in the brachial artery, which is the main artery of the arm, will show you the right location. The easiest way to feel the pulse is to place your index and middle fingers (the index finger is located right next to your thumb) of one hand in the crease of a relaxed elbow.

As blood is pumped by the heart the arteries expand and then contract (shrinks) in the arteries. The result is a pulse that can be felt with fingers at different points throughout the body and heard through a listening device called a stethoscope. You will use the brachial pulse to get blood pressure readings. You can find the brachial pulse inside of the arm at the elbow.

Feel for a pulsating (throbbing) pressure under your fingers, about one pulse each second. You may have to try a few different spots because every person's body is different, but the right spot is usually near the middle of the crease of the elbow.

When you find the pulse, remember where it is!

Your trainer will show you how to use your fingers to find a brachial artery pulse. Practice finding your own brachial artery pulse. Next, arrange with partners in the room to find their brachial artery pulses.



Put your stethoscope on, wearing it with the earpieces facing forward.

Place the flat side of the end of the stethoscope on the same spot where you felt the pulse. The end of the stethoscope should be directly on the patient's skin and below the lower edge of the cuff.

Make sure that the cuff is not sliding down over the stethoscope. Continue holding the head of the stethoscope in place so that it stays in contact with the skin.

It is best to do this with your non-dominant hand (your left hand if you are right-handed) so that you can operate the pump with your dominant hand.

Using a Stethoscope

7. Inflate the blood pressure cuff.

Hold the bulb in your free hand. Use your thumb and index finger to twist the screw valve in a clockwise manner until the valve is tight.

Squeeze the bulb rapidly several times to fill the cuff with air. While doing this, watch the dial to keep track of how much pressure is in the cuff. Stop squeezing the bulb when the dial reads 200 mmHg. Make sure that you are still holding the stethoscope at the right spot.

When you inflate the cuff, you are temporarily stopping blood flow in the brachial artery, the main artery of the arm. This is necessary to let you take a blood pressure, but take care not to leave the cuff fully inflated for more than 15–20 seconds before deflating it. To learn how to deflate the cuff, read the description below for the next step.



Inflate the Cuff

8. Deflate the blood pressure cuff while listening for the sounds of blood flowing.

Immediately after you stop pumping, slowly let air out of the cuff. Use your thumb and index finger (the finger next to the thumb) to twist the screw slightly to the left (counterclockwise) so that a little air can escape. The proper rate of deflation is 2–3 mmHg (millimeters of mercury) per second (equals one line on the dial every second).

As the air is escaping, listen to the sounds coming through the stethoscope while you watch the dial. If you hear thumping sounds right away, quickly turn the screw to the right and immediately pump the cuff up to a higher pressure, perhaps 220, before letting air out again.

When you start letting air out, you should not hear any distinct sounds at first. You will then hear a thump, which will be followed by several other similar thumping sounds. The number on the dial when you heard the first thump is your patient's systolic blood pressure.



Listening to the Sounds of Blood Flowing

Here the dial reads 126. **If the CHW heard the first thumping sounds when the dial read 126, it means that the systolic blood pressure is 126 mmHg.**



Here the dial reads 84. If the CHW stopped hearing thumping sounds when the dial read 84, it means that the diastolic blood pressure is 84 mmHg.

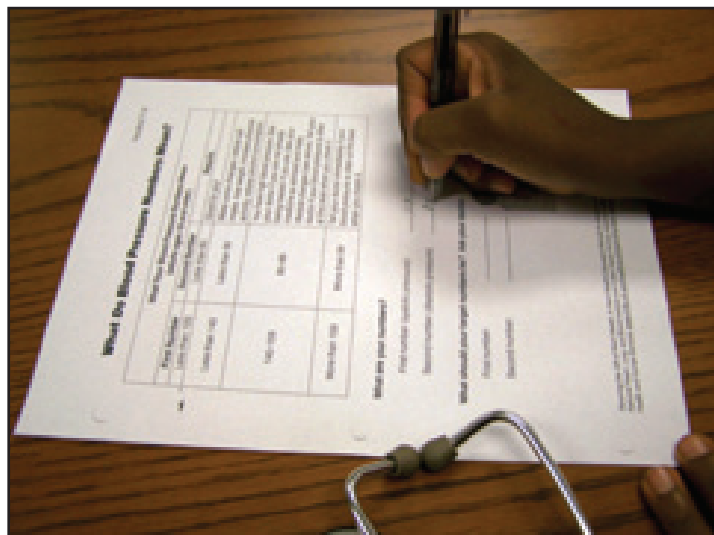
9. Write down the blood pressure.

Write down the two blood pressure numbers right away, writing the systolic (first) number above the line and the diastolic (second) number below the line.

Normal, healthy blood pressures are 120 mmHg or less for systolic and 80 mmHg or less for diastolic pressure.

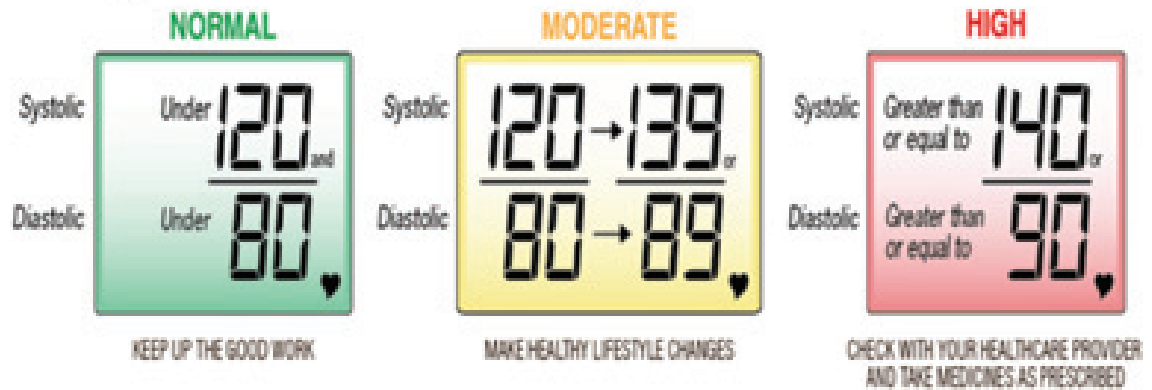
If a patient's systolic pressure is 135 mmHg or more and/or they have a diastolic of 85 mmHg or more, they should make an appointment with their doctor to talk about their blood pressure and get a checkup.

If a patient's systolic pressure is 160 mmHg or higher and/or the diastolic pressure is 100 mmHg or higher, she or he needs to call a doctor right away.



Write Down Your Numbers

Know your numbers and what they mean



If you have diabetes, talk with your doctor about appropriate blood pressure levels.

Blood pressure is measure in millimeters.

Remind people that most of them will be using an automatic blood pressure monitor — they are now cheaper than the manual type and less prone to error by users.



Automatic Blood Pressure Monitor

1. Make sure the person is sitting down correctly and is relaxed.

This step is the same as it is for taking blood pressure using a manual monitor. Talk to the person to help them relax before you take their blood pressure. Also make sure that they are seated with their back straight, legs uncrossed, and feet flat on the floor. If possible, make sure they can rest their arm on a table, desk, armchair, or some other sturdy surface to keep their upper arm at heart level.

2. Expose and position the person's upper arm.

This step is the same as for a manual blood pressure monitor. Because the cuff should be directly on the person's skin, the person whose blood pressure is being taken should remove clothing from their upper arm. Sleeves may be rolled up out of the way if they are loose. The person will have to take off any clothes that are too tight to be pushed up the arm. Remember to rest the person's arm on a table or other stable surface with the palm facing upward. The whole arm should be relaxed, and the upper arm should be at the same level as their heart.



3. Apply the blood pressure cuff to the person's arm.

Wrap the blood pressure cuff snugly around the person's bare upper arm. As you wrap it around the arm, before you fasten the Velcro straps, make sure to leave 1 inch of space between the bottom edge of the cuff and the crease of the elbow.

Figuring out the correct cuff size for an automated cuff is similar to the technique for manual cuffs (see Activity 7-6). The difference is that with an automated monitor you may need to take one cuff off and connect a cuff with a different size to the monitor. Check the user's manual if you have to do this.

Make sure that the bottom edge of the cuff is 1 inch above the elbow and is centered correctly. As you bring the ends over each other, overlap them smoothly so that there are no gaps or large wrinkles, and press gently so that the Velcro on the inner side of the cuff sticks.

The cuff should be snug enough that it stays in place and does not slide down the arm. However, you also want to make sure it is not too tight. To test this, make sure you can fit two of your fingers under the edge of the cuff.



4. Turn on the monitor and let the cuff inflate.

For the monitor to work, you must tell it to begin taking a blood pressure. Different brands of monitors will differ slightly, but all will have something to start this process. Often, it will be a button that says something like “On,” “Start,” or something similar.

Press the “On” button or another button that turns on the monitor. The cuff will first fill with air, and then it will deflate. When it is finished, the systolic and diastolic values will appear on the monitor’s screen.

Check the manufacturer’s guide for specific questions or if the machine does not work in any way.



5. Write down the blood pressure.

Write down the numbers that you see on the monitor's screen. Put the systolic (first) number above the line and the diastolic (second) number below the line.

Recall that an ideal blood pressure has a systolic value lower than 120 and a diastolic value lower than 80. If the systolic value is 138 or higher and/or the diastolic value is 85 or higher, encourage the person to meet with their doctor. If their blood pressure values are above 159 systolic and/or 99 diastolic, tell them to contact their doctor right away.

6. Turn off the monitor and remove the cuff from the person's arm.

Find and press the button that turns the monitor off. Then unfasten the Velcro within the cuff so that you can remove it from the patient's arm.

Also, see www.heart.org/HEARTORG/Conditions/HighBloodPressure/SymptomsDiagnosisMonitoringofHighBloodPressure/How-to-Monitor-and-Record-Your-Blood-Pressure_UCM_303323_Article.jsp



While some CHWs are practicing taking blood pressure readings on others, have some CHWs watching and ask them to make notes about any errors they see. Change roles, so that all CHWs are able to watch. Then ask all the CHWs to talk about the errors they saw. If they miss or did not see any of the errors below, take the time to talk about them.

All of these common things can lead to incorrect blood pressure readings

The cuff is too small (one of the two most common causes of error in clinical practice!).

The cuff is too large (the other most common cause of error in clinical practice!).

The artery line is not centered.

The arm is above heart level.

The arm is below heart level.

Patient's feet are not flat on the floor.

Patient's back is not supported.

Legs are crossed.

Patient is in pain.

Patient is talking.

Patient has full bladder.

Patient has difficulty breathing.

Patient did not rest 3–5 minutes after activity before the blood pressure measurement.

Patient experiences the white coat syndrome (patient is anxious or afraid).

Patient has recently used tobacco or caffeine.

The cuff is placed over clothing rather than directly against the skin.

Source: Improving the screening, prevention and management of hypertension: an implementation tool for clinical practice teams. City (WA): Washington State Department of Health. Available from URL: http://here.doh.wa.gov/materials/bp-management-implementation-tool/13_BPtoolkit_E13L.pdf.



What is Wrong with this Picture?

Resources for Monitoring Blood Pressure at Home

American College of Physicians: <http://www.acponline.org/multimedia/?bclid=782539368001&bctid=756428822001>

American Heart Association: http://www.heart.org/HEARTORG/Conditions/HighBloodPressure/SymptomsDiagnosisMonitoringofHighBloodPressure/Instructional-Video---Monitoring-Blood-Pressure-at-Home_UCM_303324_Article.jsp

Tips for Taking Medicine for High Blood Pressure

Activity 7-9

Ask the CHWs what tips they would give to community members about taking medicines and what questions community members might have for their doctors. Review the items below.

- Make sure you take your medicine every day, not only on the days when you don't feel well.
- Tell your doctor the names of all other medicines, herbal supplements you take. Bring everything with you when you visit your doctor.
- Tell the doctor or nurse right away if your medicine makes you feel strange or sick. Ask your doctor about changing the dosage or switching to another type of medicine.
- Refill your medicine before you run out.
- Have your blood pressure checked often to see if the medicine is working for you.
- Don't stop taking your medicine if your blood pressure is OK. Having normal blood pressure means that the medicine is working.

Questions to ask the doctor about your medicine for high blood pressure:

Name of medicine(s): _____

Amount of medicine to take: _____

When to take it: _____

What to eat or drink with it: _____

What other medicine is OK to take at the same time: _____

Other questions: _____

What number should I call immediately if I have serious problems (an emergency):



What Community Health Workers Can Do (with Program Support) to Help Community Members Who Are at Risk for High Blood Pressure

Activity 7-10

Ask the CHWs to talk about how they help community members who are at risk for high blood pressure and those who already have high blood pressure. Do their programs support their activities? Review the items below if the CHWs did not mention them.

Ways to Support People in Meeting Their Health Care Needs:

- Teach community members that they need to get screened for high blood pressure because most of the time people with high blood pressure do not feel sick and are not aware they have this problem.
- Teach community members to ask for their blood pressure numbers and what they mean.
- Encourage community members to ask their doctor what their target blood pressure should be.
- Teach community members how important it is to control blood pressure.
- Teach community members that uncontrolled high blood pressure will damage their eyes, kidneys, heart, and brain.
- Teach community members that high blood pressure will put them at high risk for heart attack, heart failure, and stroke.
- Help those who have diabetes understand the importance of controlling that problem and regularly taking their diabetes medications.
- Introduce community members to social workers who can help them apply for Medicaid or other programs that can help pay for their health care.

Ways to Help People Make Better Lifestyle Choices

- Help community members learn how to reduce their intake of sodium.
- Work with community members to find ways to make low-cost fruits and vegetables and low-sodium and low-fat foods available in the community, in schools, and at work sites.
- Work with communities, schools, and worksites to provide places to exercise, exercise programs, etc.
- Encourage or find ways for people to get regular physical activity, stop smoking, lose weight (if they are overweight), and drink no more than one alcoholic drink a day (applies to women) and no more than two such drinks (men). One drink equals 1 ounce of hard liquor, 4 ounces of wine, or 12 ounces of beer.



What Community Health Workers Can Do (with Program Support) to Help Community Members Who Already Have High Blood Pressure

Note that all of the suggestions for helping people at risk for high blood pressure (see previous page) also apply to people who already have high blood pressure.

- Help community members with high blood pressure understand what they need to do to take care of themselves.
- Tell community members to call their doctor if they have questions about their medicines.
- Remind community members that they should not stop taking their medicines without talking to their doctor, even if they feel better.
- Help community members understand how important it is to regularly check their blood pressure.
- Remind community members to ask their doctor how often they should check their blood pressure.
- Encourage community members to ask their doctor what numbers for blood pressure are dangerously high and what they should do if their numbers get that high.
- Help community members use blood pressure monitors correctly and write down their numbers correctly.
- Help community members learn how to keep track of the medicines they are taking.
- Learn and teach relaxation exercises.
- Encourage community members to get help for managing stress and depression.



How to Control Your Hypertension: A Promotora Guide

Activity 7-11

Controlling Hypertension by Learning to Control Sodium Intake: [A Fotonovela](#)

Spanish Version: [Cómo Controlar su Hipertensión: Aprenda a controlar su consumo de sodio](#)

Controlling Hypertension by Learning to Control Sodium Intake: [Promotora Guide](#)

Spanish Version: [Guía de Promotora Cómo Controlar Su Hipertensión—Aprenda a controlar su consumo de sodio](#)



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Objectives

By the end of this session, community health workers will be able to

- Describe the different types of blood cholesterol.
 - Describe the causes of high blood cholesterol.
 - Explain lifestyle changes that can affect cholesterol levels.
-

Activities

- 8–1: What Are Healthy Blood Cholesterol Numbers?
 - 8–2: Cholesterol, Saturated Fat and Trans Fats in Food
 - 8–3: Tips for Lowering Cholesterol
 - 8–4: Cholesterol Fotonovela and Guide
 - 8–5: What Community Health Workers Can Do to Help Community Members Control High Blood Cholesterol Levels?
-

Chapter Outline

- A. What Is High Blood Cholesterol?
- B. What Causes High Blood Cholesterol?
- C. How Is High Blood Cholesterol Diagnosed?
- D. How Is High Blood Cholesterol Treated?
- E. What Changes Should You Make in Your Diet and Lifestyle?

Pretest

Circle letters for ALL correct answers. A question may have more than one correct answer.

1. What is the best test for measuring blood cholesterol levels?

- a. Finger prick .
- b. Lipid profile.
- c. A1c.

2. What lifestyle changes can improve blood cholesterol levels?

- a. Eat more fruits and vegetables.
- b. Stop smoking.
- c. Eat less meat that is high in fat.
- d. Lose weight, if overweight.
- e. Eat fewer packaged cookies.

3. What can high levels of LDL do to your body?

- a. Cause a narrowing of the arteries.
- b. Cause a build-up of plaque (cholesterol) in the arteries.
- c. Cause a heart attack.

► Talking Points:

A high level of cholesterol in the blood is a leading risk factor for heart disease and stroke. About 71 million people in the United States have high cholesterol levels.

A. What Is High Blood Cholesterol?

► Talking Points:

Cholesterol is waxy, fatty material found in the bloodstream and in all of your body's cells. It is made by your liver. It's also found in the food you eat.

Your body needs cholesterol to work properly and makes all that you need.

One type of cholesterol (the “good” cholesterol) is good for you, but another type (the “bad” cholesterol) is not.

The “good” cholesterol is known as **HDL, or high density lipoprotein cholesterol**. Almost everyone, including doctors, uses the term *good cholesterol* for HDL.

It might help you to remember that HDL is the good cholesterol if you think of the *H* in HDL as meaning “healthy.” HDL is considered good because it removes cholesterol and carries it back to the liver, which flushes it from the body. This prevents cholesterol from building up along the walls of the arteries. **The higher the HDL number is the better!** High levels of HDL, or “good” cholesterol, reduce the risk of heart disease and stroke.

LDL, or low density lipoprotein cholesterol, is the “bad” cholesterol. Thinking of the *L* in LDL as meaning “lousy” might help you remember that LDL is the bad cholesterol. LDL is known as “bad” cholesterol because having high levels can lead to a buildup of plaque in the arteries and result in heart disease and stroke. **The lower the LDL number is the better!**

Extra LDL (bad) cholesterol can build up along the wall of your arteries. Over time, cholesterol deposits, called plaque, can narrow your arteries and allow less blood to pass through.

Plaque is a thick, hard layer of cholesterol that can narrow the blood vessels and clog arteries. A build-up of plaque in the arteries causes a condition called atherosclerosis, or “hardening of the arteries.”

Chest pain, also called angina, is caused by plaque partly blocking an artery to the heart, which reduces blood flow to the heart.

As arteries become more clogged, less blood flows to the heart and brain. When one or more arteries that supply blood to the brain or heart becomes

badly blocked, a blood clot may form and block the artery, causing a heart attack or stroke. Also, a stroke or a heart attack happen when an artery bursts open and blood can no longer reach the brain or heart.

Triglyceride is another type of fat in the blood. It also adds to your overall cholesterol level. Your liver makes triglycerides and changes some into cholesterol. When you take in too many calories or eat a diet too high in carbs and trans fats, your body makes more triglycerides. Smoking and drinking alcohol raise triglycerides and lower HDL. But just as with LDL cholesterol, too much triglyceride in the blood is NOT a good thing and puts you at risk for heart disease and stroke.

People with high triglyceride levels often have low HDL (good) cholesterol levels. People with diabetes often have low HDL and high triglycerides.

Total cholesterol, your total cholesterol score is calculated by the following equation: HDL + LDL + 20% of your triglyceride level.

B. What Causes High Blood Cholesterol?

► Talking Points:

High levels of LDL (bad) cholesterol can be caused by such things as family history and age, but certain behaviors or conditions can also be part of the cause of high LDL levels. Risk factors include the following

- **Not being active.** Lack of activity can contribute to high LDL levels. Regular physical activity can help lower LDL (bad) cholesterol levels and raise HDL (good) cholesterol levels. It also helps you lose weight or keep a healthy weight. You should try to be physically active for 30 minutes or more on most, if not all, days.
- **Weight.** Being overweight is a risk factor for heart disease. It also tends to increase your bad cholesterol level. Losing weight can help lower your LDL (bad) and total cholesterol levels and your triglyceride level. It can also help raise your HDL (good) cholesterol level.
- **Diet.** Saturated fat, trans fats, cholesterol, or triglycerides in the food you eat makes your blood cholesterol level go up. Saturated fat is the main problem, but cholesterol, trans fat in foods and in the oils used to cook food can also add to the problem. Cutting back on the amount of saturated fat, cholesterol, and trans fats in your diet helps lower your blood cholesterol level.
 - **Saturated fats** come largely from animal fat (high-fat meat, lard), but also from some vegetable oils such as palm, coconut oil, and from full-fat cheese, milk, butter and ice-cream.

- **Trans fats** come from vegetable oil that has been hardened by a process called hydrogenation. Many snack foods, fast foods, and baked goods (cookies, crackers, pies, and pastries) contain trans fats.
- **Dietary cholesterol** is in foods that come from animal sources, including egg yolks, meat, and dairy products.
- **Triglycerides** are another type of fat in food. Eating too much food that is high in fats and eating too many carbohydrates means your body will turn the fats and carbohydrates into triglycerides.

We'll talk more about fats and cholesterol in foods and ways to eat better in the session on Healthy Eating and Weight Control (Chapter 12).

- **Age.** As you get older, cholesterol levels rise.
- **Family history.** High blood cholesterol can run in families.

If you have high cholesterol level, **smoking and high blood pressure** add to your risk of developing heart disease or having a stroke. Cigarette smoke and high blood pressure damage blood vessel walls. The damage makes it more likely that cholesterol will collect along the walls and make them hard and narrow.

Type 2 diabetes (the kind that usually develops in adulthood) can also cause blood vessels to narrow, making high levels of cholesterol in the blood even more dangerous to your health.

C. How Is High Blood Cholesterol Diagnosed?

► Talking Points:

There are generally no symptoms of high cholesterol. Many people have never had their cholesterol checked, so they don't know they're at risk. A simple blood test can tell you your level. The good news is that there are steps you can take to prevent high cholesterol—or to reduce your levels if they are high.

Healthy adults aged 20 years and older should have their blood cholesterol checked at least once every five years.

If a person has high cholesterol levels or other risk factors for heart disease, such as diabetes, he or she should be tested as often as advised by his or her doctor.

There are two types of tests for checking cholesterol. One is a **finger prick test** that gives a general reading of the blood cholesterol level. The other is a **lipid profile test**, which gives more detailed and accurate information.

The finger prick test is most often done at health fairs and health screenings

at shopping malls. Blood is taken from a prick in the finger. The test provides a reading of the total cholesterol level only. If you have a finger prick test and your total cholesterol number is close to or higher than 200, it is a very good idea to see your doctor.

The cholesterol in your blood is measured in milligrams per deciliter of blood (mg/dl). Your total blood cholesterol number (the sum of all the cholesterol in your blood) should be **less than 200 mg/dl**, but the lower the better. A total cholesterol level of

- **200 to 239 is borderline high.** Depending on your other risk factors, you may be at higher risk for heart disease.
- **240 or more is high.** You are at risk for clogged arteries and a heart attack.

You should know your numbers for 1) LDL cholesterol, 2) HDL cholesterol, 3) triglycerides, and 4) total cholesterol. The lipid profile test that your doctor will order gives a reading for all four of these blood cholesterol levels.

This test is also more accurate than the finger prick test and is also the better test because you get a more complete picture of your blood cholesterol.

Your doctor or nurse will ask you to fast (not to eat food) for 12 hours before a lipid profile test.

This type of test involves drawing blood from the arm and testing it in a lab.

If your levels are within the normal range, your lipid profile test results will be

- **More than 40 for HDL (healthy, good) cholesterol. The higher it is the better.**
- **Less than 100 for LDL (bad) cholesterol. Keep it low! If you have heart disease and diabetes, keep this number at less than 100.**
- **Less than 150 for triglycerides. Keep it low!**
- **Your total cholesterol reading should be less than 200.**

Activity 8–1: What Do Cholesterol Numbers Mean? Review with the CHWs the four optimal cholesterol numbers. Ask them to talk about how they might help people in the community understand the importance of having normal cholesterol levels.

► Talking Points:

You should have a lipid profile test at regular check-ups with your doctor or at least once every five years.

If you have high cholesterol levels or other risk factors for heart disease and stroke, you should get this test as often as your doctor advises.

Your doctor will talk to you about treating and lowering your high cholesterol.

D. How Is High Blood Cholesterol Treated?

► Talking Points:

Only **1 out of every 3 adults** with high cholesterol has the condition under control. But you can take steps to manage your cholesterol levels and lower your risk for heart disease and stroke.

The first step in treating high blood cholesterol is to make lifestyle changes, including eating foods low in saturated fat, trans fat, and cholesterol and more fruits, vegetables, dried peas and beans; increasing your physical activity; and managing your weight.

Try not to eat foods (like snacks that come in packages) that have trans fat in them. Trans fat is vegetable oil that is used to keep baked goods fresher in the store and for cooking food in restaurants and fast food places. Trans fat raises the level of triglycerides in the blood.

The most important change you can make in your diet is to limit the amount of saturated fat that you eat. Saturated fat, found mainly in foods that come from animals, has the greatest effect on raising blood cholesterol.

Generally, your LDL (bad) cholesterol level will begin to drop a few weeks after you begin eating healthy meals and snacks that are low in saturated fats and increasing your level of physical activity. However, if your cholesterol level does not fall enough from making these lifestyle changes, a doctor may prescribe medicine.

In that case, the second step is taking cholesterol-lowering medicines that your doctor prescribes and getting follow-up lipid profile tests to check your cholesterol numbers.

► Talking Points:

The main goal in treating high blood cholesterol is to lower your LDL number to a level that lowers your risk of developing heart disease or having a stroke.

Reducing cholesterol levels can slow or even reverse the build-up of cholesterol in the walls of the arteries.

E. What Changes Should You Make in Your Diet and Lifestyle?

► Talking Points:

As community health workers, you can help people in your community lower their cholesterol levels—often without medicine. Here are some helpful tips

- Keep a healthy weight. If you are overweight, try to lose weight.
- Eat more fruits and vegetables.
- Eat smaller amounts of foods that are high in fat and calories.
- Eat healthy snacks.
- Be physically active for at least 150 minutes a week.
- Stop smoking, if you smoke. If you don't smoke, don't start. If you do smoke or chew tobacco, stop as soon as you can. If you need help in stopping, ask your doctor or nurse.

By taking these steps to lower your cholesterol, you can lead a life that is heart healthy.

(Note to trainer: For more information, see Chapter 12: Healthy Eating and Weight Control and Chapter 13: Physical Activity.)

► Talking Points:

We already know that your diet should be low in saturated fats and other kinds of fat. Remember, foods that come from animals are often high in saturated fats, but other foods, such as French fries, which are fried in fat, can also be high in saturated fat and trans fat because of the oil used to fry them.

Activity 8-2: Cholesterol, Saturated and Trans Fats in Foods

Ask the CHWs to share some examples of food that are high in saturated fats, cholesterol, and trans fats that people in their communities like to eat.

Possible responses are

- Whole milk, butter, cream, high-fat cheeses, and ice cream
- Egg yolks.
- Lard, pork fat, shortening, cocoa butter and oils such as coconut and palm oils.
- Partially hydrogenated oils, which are are trans fats.

- Fatty meat, such as ribs, hot dogs, sausage, bacon, pork rinds, liver and other organ meats, sausage, hot dogs, and lunch meats such as bologna and salami.
- Tacos, refried beans, and fried foods from fast-food restaurants.
- Packaged or frozen pastries, donuts, cakes, pies, chips, crackers, pudding, pancake, waffle, and cake mixes, meat sticks, biscuits, sweet rolls, microwave popcorn, whipped dessert toppings, and nondairy creamers often contain partially hydrogenated oils and palm and coconut oils.

Ask the CHWs to share some examples of the kinds of food that they think are lower in or have no saturated fats, cholesterol, or trans fats.

Possible responses are

- Fish, or chicken and turkey without skin.
- Lean meats, such as round cuts, sirloin, and extra lean ground beef.
- Beans and brown rice.
- Fruits and vegetables.
- Fat-free and low-fat milk.
- Fat-free and low-fat cheese, cottage cheese, and yogurt.
- Use low-fat spreads instead of butter. Most margarine spreads contain less saturated fat than butter. Look for a spread that is low in saturated fat and doesn't contain trans fats.
- Some oils (canola, olive, peanut, soybean, safflower, corn, sunflower, flaxseed).
- Grains, such as whole-grain bread
- Cereal, such as oatmeal.

► Talking Points:

In the chapter on healthy eating, we will talk about different kinds of fat and how to read food labels to pick healthier products when you shop.

Activity 8–3: Tips for Lowering Cholesterol Ask the CHWs how they can encourage people in their community to adopt healthier lifestyles. Have them add their ideas to the handout.

(Note to trainer: For more information see Chapter 12: Healthy Eating and Weight Control and Chapter 13: Physical Activity.)

Activity 8-4: How to Control Your Fat and Cholesterol Promotores and other community health workers (CHWs) are encouraged to read the fotonovela with community members. A Promotora/CHW Guide comes with the fotonovela and gives these members of the health care team a brief summary of objectives, tips, additional activities, reviews, and reminders.

Give the CHWs the fotonovela and guide. Review the guide and answer any questions that the CHWs may have.

Then have a fun time having the CHWs read and play the roles of the cast of the fotonovela.

► Talking Points:

Many people don't have regular access to medical care, prescription medicines, or support for making lifestyle changes. Some people don't go back to the doctor when they should. This makes it hard to control their cholesterol. About 1 in 2 adults stops taking cholesterol medicine within 1 year.

Activity 8–5: What Community Health Workers Can Do to Help Community Members Control High Blood Cholesterol Levels?

CHWs can help their community members by reminding them to get a cholesterol screening, and helping them find resources in the community to get free or low-cost screening and medicines. They can help people understand why it's important to take medicine for their high cholesterol, as prescribed by their doctors. CHWs can encourage people to eat and cook foods low in saturated fat, cholesterol, and trans fat. CHWs can encourage community people to maintain a healthy weight; stay active, and stop smoking.

Ask the CHWs to share their experience and ideas about how they can help community members who need to control their blood cholesterol levels. Review the activity handout. What barriers might they encounter? What resources in the community could help them overcome barriers?

Posttest

Circle letters for ALL correct answers. A question may have more than one correct answer.

1. What is the best test for measuring blood cholesterol levels?

- a. Finger prick.
- b. Lipid profile.
- c. A1c.

2. What lifestyle changes can improve blood cholesterol levels?

- a. Eat more fruits and vegetables.
- b. Stop smoking.
- c. Eat less meat that is high in fat.
- d. Lose weight, if overweight.
- e. Eat fewer packaged cookies.

3. What can high levels of LDL do to your body?

- a. Cause a narrowing of the arteries.
- b. Cause a build-up of plaque (cholesterol) in the arteries.
- c. Cause a heart attack.

Answers to questions:

1. b

2. a,b,c,d,e

3. a,b,c

What Are Healthy Blood Cholesterol

Activity 8-1

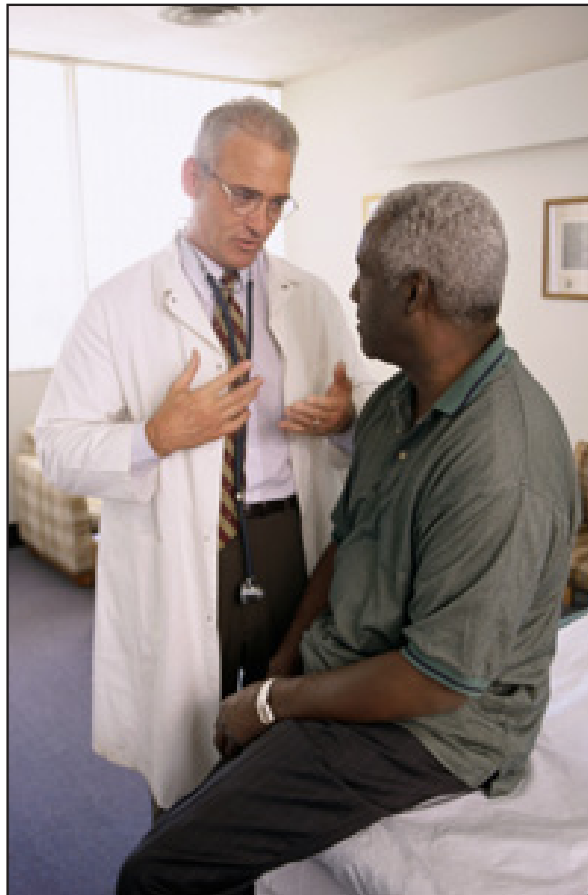
How is high cholesterol diagnosed?

Doctors can do a simple blood test to check your cholesterol. Most adults should get their cholesterol levels checked every five years. If your total cholesterol is 200 mg/dL* or more, or if your HDL (good cholesterol) is less than 40 mg/dL, you will need to have a lipid profile blood test done. Ask your doctor about what may be right for you.

What levels of cholesterol are healthy?

Cholesterol Type	Best Levels
Total cholesterol	Less than 200 mg/dL*
LDL (“bad” cholesterol)	Less than 100 mg/dL
HDL (“good” cholesterol)	40 mg/dL or higher
Triglycerides	Less than 150 mg/dL

*Cholesterol levels are measured in milligrams (mg) of cholesterol per deciliter (dL) of blood.



Cholesterol, Saturated and Trans Fats in Foods

Activity 8-2

Ask the CHWs to share some examples of food that are high in saturated fats, cholesterol, and trans fats that people in their communities like to eat.

Ask the CHWs to share some examples of the kinds of food that they think are lower in or have no saturated fats, cholesterol, or trans fats.

Ask the CHWs to share their experience and ideas about how to help community members find and eat foods that are lower in fat.



Tips for Lowering Cholesterol

Activity 8-3

You can protect your heart health by keeping your blood cholesterol levels low. By developing following healthy habits, you can reduce your risk of high cholesterol. Here are some important healthy habits



1. **Eat a healthy diet.** A high amount of saturated fat, cholesterol, and trans fat in food that you eat can increase blood cholesterol. The most important change you can make in your diet is to reduce the amount of saturated fat that you eat. Saturated fat, which is found mainly in foods that come from animals, raises blood cholesterol more than anything else you eat. The following are examples of foods that are high in saturated fat and high in cholesterol

- Whole milk, butter, cream, high-fat cheeses, stick margarine.
- Lard, pork fat, shortening.
- Fatty meat such as ribs, hot dogs, sausage, pork rinds.
- Some vegetable oils, such as coconut, and palm.
- Trans fats are often found in cookies and cakes.

It is best to eat foods from the following groups:

- Fruits and vegetables.
- Low-fat dairy products.
- Fish or chicken without skin.
- Cereals, pasta, lentils, and beans.

Here are some other important things to remember about eating a healthy diet

- Stick margarine is not a healthy substitute for butter.
- Limit your salt intake.*
- Limit the size of the portions you eat.*
- Limit the total amount of food you eat..*

*Follow the DASH eating Plan. The Dash Diet. www.nhlbi.nih.gov/health/public/heart/hbp/dash/index.htm

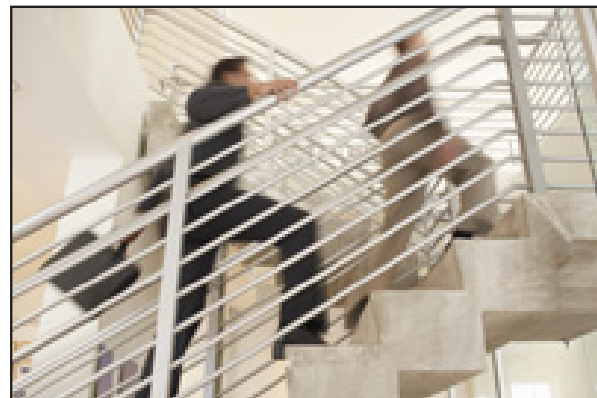
2. Keep a healthy weight. If you are overweight, try to lose weight. Here are some ways to lose weight:

- Eat more fruits and vegetables.
- Eat smaller amounts of foods that are high in fat and calories.
- Eat healthy snacks.
- Be physically active for at least 150 minutes a week.

3. Increase your physical activity. Try to be physically active every day. Choose activities that you enjoy doing with your friends or family. Play sports, walk, take the stairs, dance, do aerobics, swim, or garden.

4. Stop smoking tobacco. Ask you health care team for help.

By taking these steps to lower your cholesterol, you can lead a life that is heart healthy.



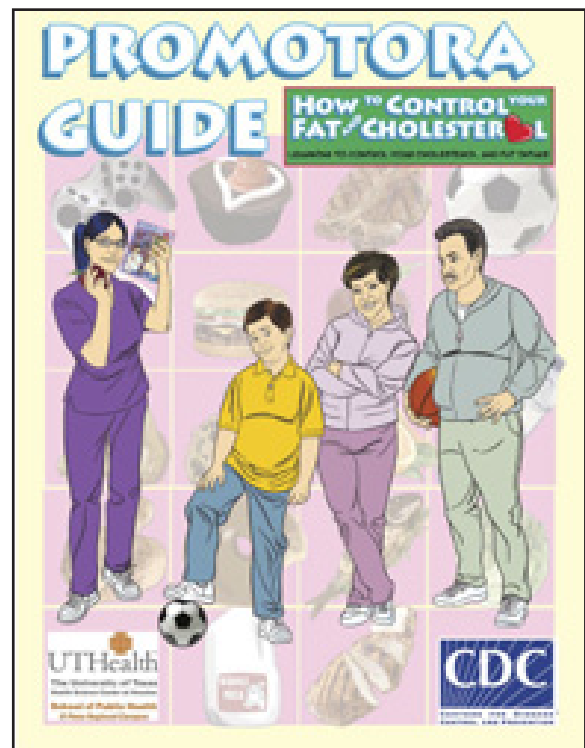
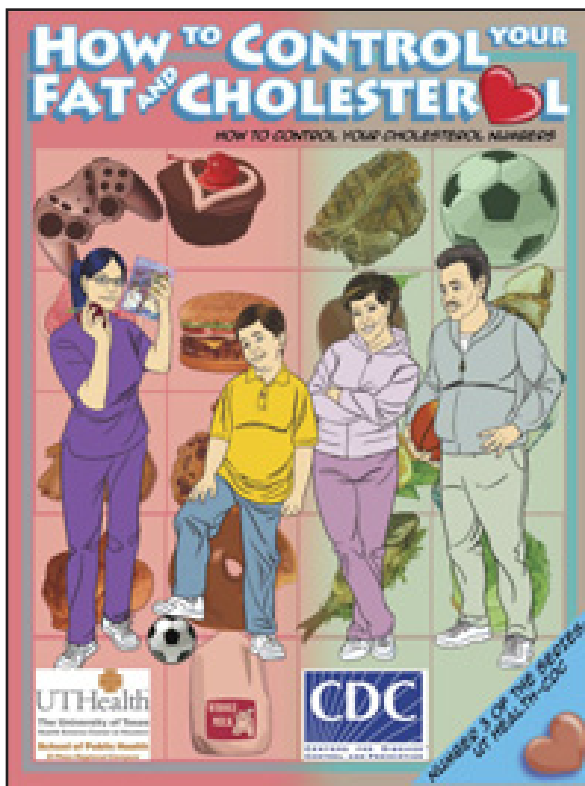
How to Control Your Fat and Cholesterol

Activity 8-4

Ask the CHWs to look at the cast in this story: the Ramirez family members, the doctor, and the CHW. Let them pick the cast members they would like to be, and let the group perform (read) the fotonovela together. CHWs or trainers may choose to read the text for the narrator. Have everyone do the 2 activities in the fotonovela and compare their answers. If anyone in the group can't read give them another role; maybe they can ask questions to clarify anything they heard. Have fun!

[How to Control Your Fat and Cholesterol: A Promotora Guide](#)

[How to Control Your Fat and Cholesterol: A Fotonovela](#)



What Community Health Workers Can Do to Help People Who Are at Risk for High Blood Cholesterol

Ways to Support People in Their Health Care Needs:

- Teach community members to get screened for high blood cholesterol.
- Screening is important because people with this condition do not feel sick.
- Teach community members that it is important to control high blood cholesterol.
- Teach them that uncontrolled high blood cholesterol will damage their heart, blood vessels, and brain.
- Teach community members that if left untreated, high blood cholesterol will put them at high risk for heart disease, heart attack, and stroke.
- Remind community members to ask to have their blood cholesterol checked when they go to the clinic or the doctor's office.

Help People Make Better Lifestyle Choices:

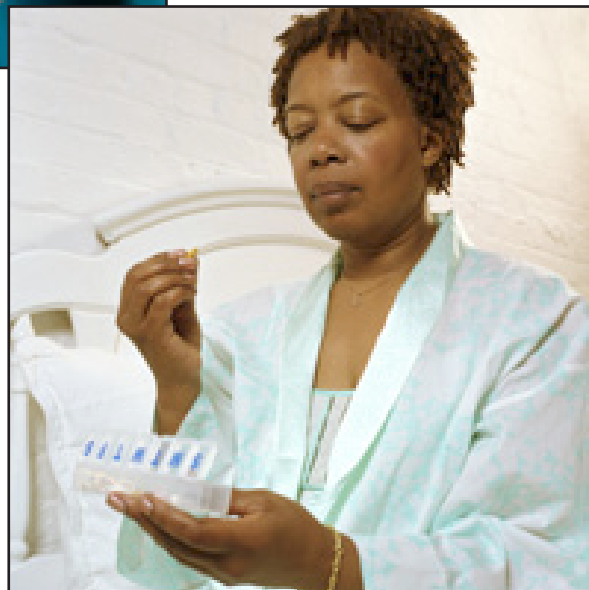
- Encourage people to take part in regular physical activity, stop smoking, lose weight (if they are overweight), and drink no more than one alcoholic drink a day for women and no more than two for men. One drink is 1 oz. of hard liquor, or 4 oz. of wine, or 12 oz. of beer.
- Help people choose a diet low in fat, saturated fat, trans fat, and cholesterol.
- Encourage people to eat less fatty foods and to decrease the amount of food they fry.



What Community Health Workers Can Do to Help People Who Have High Blood Cholesterol

All of the suggestions for people at risk for high blood cholesterol apply, plus the following:

- Help those who have high blood cholesterol and diabetes understand the importance of controlling their diabetes and regularly taking their diabetes medications.
- Help those with high blood cholesterol understand what they need to do to take care of themselves.
- Help community members understand the importance of regularly taking their cholesterol-lowering medicines. They should not stop taking their medicines, even if they feel better.
- Help people learn how to keep track of the medicines they are taking.



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Objectives

By the end of this session, community health workers will be able to

- Describe the three types of diabetes.
 - Describe the long-term dangers of diabetes.
 - Describe the risk factors for diabetes.
 - Describe the signs of diabetes.
 - Explain the steps in managing diabetes for life by balancing food, physical activity, and medicine.
 - Describe two tests for checking blood glucose.
 - Explain how a person can control high and low blood glucose levels.
-

Chapter Outline

Lesson

- A. What Is Diabetes?
- B. What Are the Dangers of Diabetes?
- C. What Are the Types of Diabetes?
- D. What Are the Risk Factors for Diabetes?
- E. What Are the Signs of Diabetes?
- F. What is Prediabetes?
- G. How Is Diabetes Diagnosed?
- H. What Are the Steps in Managing Diabetes for Life?
- I. Why Is It Important to Check Your Blood Glucose Daily?
- J. How Does a Person with Diabetes Control High or Low Blood Glucose Levels?
- K. How Do People Manage Their Diabetes When They Are Away from Home or Sick?
- L. How Do You Set a Goal?
- M. What Actions Can You Take to Manage Your Diabetes?

Activities

- 9-1: Risk Factors for Type 2 Diabetes
- 9-2: What Are the Signs of Diabetes
- 9-3: Steps to Managing Your Diabetes for Life
- 9-4: Know Your ABCs
- 9-5: Eating Well
- 9-6: Being Active
- 9-7: Get Routine Care to Stay Healthy
- 9-8: Self-Checks of Blood Sugar
- 9-9: Daily Blood Sugar Log
- 9-10: Roadblocks to Checking Blood Sugar
- 9-11: Low Blood Sugar
- 9-12: High Blood Sugar
- 9-13: Managing Your Diabetes at Work, at School, and During Travel
- 9-14: Sick Day Guidelines for People with Diabetes
- 9-15: My Goals
- 9-16: Actions People with Diabetes Can Take
- 9-17: What Community Health Workers Can Do for People Who Are at Risk for Diabetes and for People Who Already Have Diabetes

Pretest:

Circle letters for ALL correct answers. A question may have more than one correct answer.

1. Why is it important for people with diabetes to be physically active?

- a. It can help control blood glucose.
- b. It can help control blood pressure.
- c. It can give them more energy.

2. What are the signs of diabetes?

- a. Blurred vision.
- b. Loss of energy.
- c. Slow-healing sores and other injuries.
- d. Being very thirsty all the time.

3. What risk factors for diabetes can be controlled?

- a. Weight.
- b. Smoking.
- c. Family history.
- d. Physical activity.

4. If your blood sugar is very low, which of the following can you drink to raise your blood sugar?

- a. Orange juice.
- b. Plain tea without sugar.
- c. Wine.

5. Which of the following conditions can diabetes cause?

- a. Arthritis.
- b. Blindness.
- c. Heart disease.
- d. Gum disease.

6. Which of the following is not a sign of low blood glucose?

- a. Sweating.
- b. Confusion.
- c. Fatigue.
- d. Being hungry.

A. What Is Diabetes?

► Talking Points:

Diabetes is a disease in which too much glucose, or sugar, is in the blood. Diabetes is also called high blood sugar. Most of the food we eat is turned into glucose, or sugar, for our bodies to use for energy.

Insulin is made by the pancreas to help glucose get into our cells. The pancreas is an organ near the stomach.

When a person has diabetes, his or her body either doesn't make enough insulin or can't use its own insulin as it should. This problem keeps glucose from getting into the cells, and causes glucose to build up in the blood.

B. What Are the Dangers of Diabetes?

► Talking Points:

Diabetes is a growing health problem. Over 29 million people in the United States have diabetes.

If diabetes is not kept under control, it can cause other serious health problems. Here are some examples:

- Adults with diabetes are two to four times more likely to die from heart disease and stroke than are those without diabetes.
- The risk for stroke is two to four times higher for people with diabetes.
- Diabetic eye disease, or retinopathy, is a leading cause of blindness in people aged 20 to 74 years.
- Diabetes causes people to lose limbs, especially the feet.
- Diabetes is the most common cause of kidney failure.
- High blood glucose helps germs grow in the mouth, leading to gum disease and loss of teeth.
- Diabetes can damage nerves throughout the body. This damage can lead to numbness and sometimes pain and weakness in the hands, arms, feet, and legs.
- Overall, the risk for death among people with diabetes is about twice that of people of the same age but without diabetes.
- About 79 million American adults aged 20 years or older have pre-diabetes. Half of people aged 65 years or older have pre-diabetes. They have blood glucose levels that are higher than normal but not yet high enough to be diabetes.

But there's good news for people with diabetes, too. Keeping blood glucose (blood sugar) levels close to normal helps prevent, or at least delay, some problem caused by diabetes. These problems include blindness, heart disease, kidney disease, nerve damage, stroke, foot amputations, and problems in pregnancy.

This lesson will help you learn more about how to help the people in your community prevent problems related to diabetes. The support and helpful information you give to community members will be very important to them.

C. What Are the Types of Diabetes?

► Talking Points:

There are three main types of diabetes.

The first is **type 1 diabetes**. The pancreas of a person with type 1 diabetes makes little or no insulin. Although type 1 diabetes can happen at any age, people with type 1 usually find out they have diabetes when they are children or young adults. Type 1 diabetes used to be called juvenile diabetes. People with type 1 diabetes must use insulin every day to live.

The second type, which most people with diabetes—9 out of 10—have, is **type 2 diabetes**. In a person with type 2 diabetes, the pancreas still makes insulin, but either it doesn't make enough or the body isn't able to use it very well, or both.

Most people with type 2 find out about their diabetes after age 30 or 40. Type 2 is known as adult-onset diabetes, but it can happen even in younger people—some as young as children and teenagers. Type 2 diabetes has become more common in recent years.

The third type of diabetes, called **gestational diabetes**, is a type some women have when they're pregnant. It is more common among women who are overweight and women with a family history of diabetes.

Pregnant women with gestational diabetes need to keep their glucose levels as close to normal as they can, with the help of their health care team.

It is important for women who have had gestational diabetes to check again for diabetes 6 weeks or more after their baby is born and regularly for the rest of their lives. Even if the diabetes goes away, these women and their children have a greater chance of getting diabetes later in life.

No matter what type of diabetes a person has, glucose control is the key to managing the disease. The lessons we'll cover will help you support people in controlling their diabetes and help them prevent problems.

D. What Are the Risk Factors for Diabetes?

► Talking Points:

You may wonder who is most likely to get type 2 diabetes.

Certain risk factors make people more likely to get this type of diabetes. A risk factor for diabetes is a behavior or condition that makes a person more likely to develop diabetes. People who do not have these risk factors can also get diabetes. Reducing your risk for diabetes will also reduce your risk for heart disease and stroke.

Some of these risk factors are

- A family history of diabetes.
- Age, especially after 45 years of age.
- Not being physically active.
- Being overweight.
- Being of African American, American Indian, Alaska Native, Hispanic/Latino, or Asian/Pacific Islander background.
- Being a woman who had gestational diabetes or who delivered a baby weighing nine or more pounds.

People who have these risk factors may also have high blood pressure and cholesterol levels that are high.

Activity 9–1: Risk Factors for Type 2 Diabetes Give the CHWs the checklist. They may want to fill it out for themselves. Let them talk about the risks and ask questions.

E. What Are the Signs of Diabetes?

► Taking Points

The signs of diabetes are

- Being very thirsty.
- Being very hungry.
- Needing to pass urine a lot—often at night.
- Having blurry vision from time to time.

- Feeling very tired much of the time.
- Losing weight without really trying.
- Having very dry skin.
- Having sores that are slow to heal.
- Getting more infections than usual.
- Losing feeling or getting a tingling feeling in the feet.

People who have just developed diabetes may not have any of these signs. A person who has one or more of these signs should see a doctor very soon. When people take care of themselves and their diabetes they will feel better and have fewer health problems now and in the future.

Activity 9–2: The Signs of Diabetes Ask the CHWs about their experience. Review the signs of diabetes. Are community members aware that these are signs of diabetes? What do they do about them? Do they tell their doctors or other health care providers about them?

F. What Is Prediabetes?

► Talking Points:

Before people develop type 2 diabetes, they often have prediabetes— blood glucose levels that are higher than normal but not yet high enough to be diagnosed as diabetes.

Prediabetes raises the risk of developing type 2 diabetes, heart disease, and stroke.

Without making changes to improve their health, people with pre-diabetes will develop type 2 diabetes.

The good news is that people with prediabetes can do a lot to prevent or delay diabetes by eating healthier foods, becoming more active, and losing weight. These healthy habits may return blood glucose levels to normal.

Note to trainer: Encourage the CHWs to take a short quiz to find out if they are at risk for prediabetes. It is on the right side of this page.

<http://www.cdc.gov/diabetes/consumer/prediabetes.htm>

G. How Is Diabetes Diagnosed?

► Talking Points:

The most common and simple blood test for finding out if you have diabetes is the fasting blood glucose test. A person should have the test in the morning before he or she has anything to eat for at least eight hours before the blood test.

Test results are given as a number that tells you the amount of glucose in a sample of blood. If the glucose level is high—more than 126 milligrams per deciliter (mg/dl)—the person's doctor may order extra blood tests that will show if he or she has diabetes.

If the fasting glucose level is

- **Less than 100 (mg/dl), the blood glucose level is normal.**
- **100 to 125, a person has prediabetes.**
- **126 or more, on two different days, a person has diabetes.**

H. What Are the Steps to Managing Diabetes for Life?

We will talk about 4 steps.

Step 1: Learn About Diabetes

► Talking Points:

People need to know that diabetes is serious. To manage their diabetes, people need to learn how to live with the disease. They can ask members of their care team for help. The care team can include doctors, nurse practitioners, nurses, pharmacists, dietitians, diabetes educators, CHWs, and others. To learn more people can take classes, join a support group, and read more online at www.YourDiabetesInfo.org.

Activity 9–3: Steps to Managing Your Diabetes for Life Learn About Diabetes. Ask the CHWs to think about the people they know who have diabetes. Ask if those people take their diabetes seriously. What has been their experience? What do people in the community know about diabetes? What do people with prediabetes or diabetes have in common? How can lifestyle changes help people with prediabetes or diabetes?

If they mention diet, physical activity, or weight, you might add:

That's right. People don't walk and move around as much as they used to. We spend more time sitting in front of the TV, computers, or phones; we get into our cars to go places instead of walking; and we eat more high-calorie and fast foods. As a result, more of us are at an unhealthy weight.

Keeping a healthy weight and staying physically active throughout life can help prevent or control diabetes, high blood pressure, high blood cholesterol heart disease, and stroke. Some people with type 2 diabetes may also need to take medicine or insulin shots to help control their diabetes.

Taking these steps can make a world of difference for a person and his or her family for years to come. CHWs can play an important role in helping people take these steps.

► **Talking Points:**

You will learn about diabetes in this class. You can teach people in the community about diabetes. To find classes in the community, people can check with their health care team, hospital, or area health clinic. People can join a support group to get help with managing their diabetes. People also can read about diabetes online. Go to www.YourDiabetesInfo.org.

Step 2: Know Your Diabetes ABCs.

► **Talking Points:**

Talk to your health care team about how to manage your **A1C**, **Blood pressure**, and **Cholesterol**. This can help lower your chances of having a heart attack, stroke, or other diabetes problems.

A for the A1C test (A-one-C).

What is it?

The A1C is a blood test that measures your average blood glucose level over the past three months. It is different from the blood glucose checks you do each day.

Why is it important?

You need to know your blood glucose levels over time. You don't want those numbers to get too high. High levels of blood glucose can hurt your heart and blood vessels, kidneys, feet, and eyes.

What is the A1C goal?

The A1C goal for many people with diabetes is below 7. It is best to ask your doctor what your goal should be.

B for Blood pressure.

What is it?

Blood pressure is the force of your blood against the wall of your blood vessels.

Why is it important?

If your blood pressure gets too high, it makes your heart work too hard. It can cause a heart attack, stroke, and kidney disease.

What is the blood pressure goal?

Your blood pressure goal should be below 140/80 unless your doctor helps you set a different goal.

C for Cholesterol.

What is it?

Cholesterol is a waxy kind of fat that travels in the blood. There are two kinds of cholesterol in your blood: LDL and HDL. LDL or "bad" cholesterol can build up and clog your blood vessels. It can cause a heart attack or stroke. HDL or "good" cholesterol helps remove the "bad" cholesterol from your blood vessels.

What are the LDL and HDL goals for people with diabetes?

The LDL goal for most people with diabetes is below 100.

Ask your doctor what your cholesterol numbers are and what they should be (your goal). If you are older than 40 years, you may need to take medicine to improve your cholesterol numbers.

Write down all of your ABC numbers and goals! This will help you track your progress. If you don't feel good about your progress ask for help!

Activity 9–4: Know Your ABCs Talk about the ABCs with the CHWs. Ask if they have any questions. Ask them how well people in their communities know their ABCs. Are people asking their doctors these questions?

1. What are my blood glucose, blood pressure, and cholesterol numbers?
2. What should they be?
3. What actions should I take to reach these goals?

Ask the CHWs to talk about how they can help people with diabetes with the third question.

Step 3: Learn How to Live with Diabetes

► Talking Points:

Cope with your diabetes.

Stress can raise your blood glucose. Learn ways to lower your stress. Try deep breathing, gardening, taking a walk, meditating, working on a hobby, or listening to your favorite music.

Ask for help if you feel down. A mental health counselor, support group, member of the clergy, friend, or family member who will listen to your concerns may help you feel better.

Eat Well

Here are some tips for making healthy eating choices:

Make a diabetes meal plan with help from your health care team.

Eat regular meals. Ask your health care team to help you choose a meal plan. They may suggest you eat three meals and a snack or two every day at about the same times. Eating every 4 to 5 hours can help control blood glucose

Eat a variety of foods. Choose a variety of foods to eat so that your body gets the nutrition it needs.

Fill half of your plate with vegetables and fruit. Fill one quarter of the plate with lean protein, such as beans, or fish, or turkey or chicken without the skin. Fill the quarter of the plate with a whole grains, such as brown rice or whole wheat pasta. Include fat-free and low-fat milk.

Eat less fat. Avoid fried foods. Choose foods that are baked, broiled, grilled, boiled, or steamed. Choose meats that have little fat. When you eat dairy products (cheese, milk, yogurt, and others), choose those that have little or no fat.

Eat less sugar. You may find that eating less sugar helps you control your blood glucose level. Treat food and drinks with sugar as sometime food not everyday food. Here are some things you can do to eat less sugar:

Eat more high-fiber foods, like vegetables, dried beans, fruit, and whole grain breads and cereals.

Drink water and other drinks that have no added sugar.

Eat fewer foods that have extra sugar, such as cookies, cakes, pastries, candy, brownies, and sugared breakfast cereals.

Talk with your health care team about ways to sweeten food and drinks without using sugar.

Eat less sodium (part of salt). Eating less sodium may help control your blood pressure. Here are some ways to eat less sodium

Cut down on processed foods, such as foods you buy in cans, packages, and jars, pickled foods, lunch meats (“cold cuts”), and snack foods, such as chips. They are high in sodium.

Cut down on restaurant food (such as French fries) that can be high in sodium.

Taste your food first before adding salt when you are cooking and at the table. You may not need to add any.

Use herbs and spices instead of salt to flavor your food.

Quit smoking! People with diabetes who smoke are more likely to have nerve damage and kidney disease than those who don't smoke.

Use less alcohol. Alcohol can cause health problems, especially for people with diabetes. It adds calories and doesn't give your body anything it needs. Drinking alcohol may cause dangerous reactions with medicines you take. Your blood glucose can go down too low if you drink beer, wine, or liquor on an empty stomach. If you want to include a drink in your food plan once in a while, ask your health care team how to do so safely.

Activity 9–5: Eating Well Ask the CHWs how they would advise community members about eating well. Then review the tips below. After the review, have the CHWs take turns role-playing with community members who have challenges with eating well. For example, if Mrs. R. mostly eats canned soups that are high in sodium, how could CHWs help her make plans to eat a bigger variety of foods that she can afford and that are also low in sodium?

Be Active

Making physical activity part of the daily routine is hard for many people. They may be in their 40s or 50s when they first find out they have diabetes and may not have thought much about how important it is to stay active.

Talk to your doctor about what is best for you. He or she may check your heart, feet, and eyes to be sure you have no special problems.

It's important to be active. Physical activity has many benefits. It can help you control your blood glucose and your weight. Physical activity can help prevent heart and blood flow problems. Many people say they feel better when they are more active.

Start with a little. If you haven't been doing any physical activity, talk to your health care team before you begin. Walking fast, working in the yard or house, riding a bike, swimming, playing soccer or other sports, washing a car, and dancing are good ways to start. Start by taking 10-minute walks, 3 times a day. As you become stronger, you can add a few extra minutes to your physical activity.

Do some physical activity every day. Plan to get at least 150 minutes of physical activity a week. Twice a week, work to increase your muscle strength. Use stretch bands or try push-ups and sit-ups.

Choose an activity you enjoy. The more fun it is, the more likely you will do it each day. It's also fun to be active with family members and friends.

If you're already active now, but want to become more active, talk to your health care team about a safe plan.

Activity 9–6: Being More Active Ask the CHWs to talk about ways people in their communities could be more active. Have them role-play with community members who need to overcome barriers to being more active. Review the list in the activity handout.

► Talking Points:

A Few Things About Diabetes Medicines

Sometimes people can control their diabetes by changing what they eat, being more active, and losing weight. If that is not enough, the third part of your diabetes control is **medicine**. There are many different types of diabetes medicine, and they control diabetes in different ways.

Your doctor will work with you to find the best medicine for your diabetes, and will advise you when to take it and how much to take.

If you inject insulin, your health care team will tell you the following

- How to give yourself injections.
- When you need to change your insulin dose.

The most important thing a person who takes a medicine for diabetes must remember is to take their medicine!

When you take insulin injections or diabetes pills, your blood glucose levels can get too low. That's why it is important to track your blood glucose to prevent levels that are too low or too high.

To learn your daily blood glucose numbers, you'll check your blood glucose levels on your own using a blood glucose meter.

**Target blood glucose levels for most people with diabetes are:
70-130 mg/dL before meals**

Less than 180 mg/dL 1 to 2 hours after the start of a meal

People should work with their health care team to find out the best range of target blood glucose levels for themselves.

Step 4: Get routine care to stay healthy.

Activity 9–7: Get Routine Care to Stay Healthy Give the activity handout to the CHWs and cover the items below. Ask them if people in their communities are getting this routine care. If not, what can they do to help people get this care?

► Talking Points:

See your health care team at least twice a year to find and treat any problems early.

At each visit, be sure you have a

- Blood pressure check.
- Foot check.
- Weight check.
- Review of your self-care plan.

Two times each year, have an

- A1C test. It may be checked more often if it is over 7.

Once each year, be sure you have a

- Cholesterol test.
- Complete foot exam.
- Dental exam to check teeth and gums.
- Dilated eye exam to check for eye problems.

Nerve damage, circulation problems, and infections can cause serious foot problems for people with diabetes.

There's a lot you can do to prevent problems with your feet. Controlling your blood glucose and not smoking or using tobacco can help protect your feet.

Your feet may tingle, burn, or hurt. You may not be able to feel touch, heat, or cold very well. The shape of your feet can change over time. There may even be changes in the color and temperature of your feet. The skin on your feet may be dry and cracked. Toenails may turn thick and yellow. Fungus infections can grow between your toes. Blisters, sores, ulcers, infected corns and ingrown toenails need to be seen by your health care team or foot doctor (podiatrist) right away.

- Teeth and gums check.

People with diabetes are more likely to have problems with their teeth and gums.

There's a lot you can do to take charge and prevent these problems. Caring for your teeth and gums every day can help keep them healthy. Keeping your blood glucose under control is also important. Regular, complete dental care helps prevent dental disease.

See your dentist right away if you have trouble chewing or any signs of dental disease, including bad breath, a bad taste in your mouth, bleeding or sore gums, red or swollen gums, or sore or loose teeth.

- Vision check.

Diabetic eye disease (also called diabetic retinopathy) is a serious problem that can lead to loss of sight.

There's a lot you can do to take charge and prevent such problems. It is important to keep your blood glucose and blood pressure under control. Finding and treating eye problems early can help save sight.

Some people may notice signs of vision changes. If you're having trouble reading, if your vision is blurred, or if you're seeing rings around lights, dark spots, or flashing lights, you may have eye problems. Be sure to tell your health care team or eye doctor about any eye problems you may have.

- Flu shot.

People with diabetes who come down with the flu may become very sick (pneumonia) and may even have to go to a hospital. You can help keep yourself from getting the flu by getting a flu shot every year. The flu is an infection that will make your blood glucose levels go higher.

- Urine and a blood test to check for kidney problems.

Diabetes can cause diabetic kidney disease which can lead to kidney failure.

There's a lot you can do to take charge and prevent kidney problems. Controlling your blood glucose can prevent or delay the onset of kidney disease. Keeping your blood pressure under control is also important.

Your health care team can learn how well your kidneys are working by testing for microalbumin (a protein) in the urine. Microalbumin in the urine is an early sign of diabetic kidney disease. If the tests show microalbumin in the urine or if your kidneys are not working normally, you'll need to be checked more often.

At least once in your lifetime, get a

- Pneumonia shot.
- Hepatitis B shot.

Pneumonia can cause serious infections of the lungs.

Hepatitis can make you very sick.

All infections raise your blood glucose.

I. Why Is It Important to Check Your Blood Glucose Daily?

► Talking Points:

It is very important to control your blood glucose levels if you have diabetes.

By keeping your blood glucose level close to normal, you can prevent or delay health problems caused by diabetes, such as eye disease, kidney disease, and nerve damage. One thing that can help you control your blood sugar level is to keep track of it. You can do this in two ways:

- Testing your blood glucose a number of times each day. Many people with diabetes test their blood sugar two to four times a day.
- Getting an A1C test from your doctor or health clinic twice a year. The A1C test—short for hemoglobin A-1-C—is a simple blood test that measures your average blood glucose over the last three months.
- These tests tell you if you are keeping your blood glucose levels within normal limits.
- Blood sugar testing can help you understand how food, being active, and diabetes medicine affect your glucose levels. Testing can help you make choices every day about how to balance these three things. It can also tell you when your glucose is either too low or too high so that you can treat the problem.
- You can do a test anytime to find out your blood glucose (blood glucose) level. You can test before breakfast, 2 hours after meals, and before bedtime.
- Your health care team can show you how to do the test yourself using a glucose meter.
- Glucose meters usually need a drop of blood that you get by pricking your finger or a place on your arm. You place the drop of blood on a small coated strip and put it in the meter. The meter then gives you a reading of your blood glucose level.

Activity 9–8: Checking Your Blood Glucose Give each CHW a glucose monitoring kit (kits should not be shared because of the slight risk for transmitting infections through the blood via sharing glucose monitors). Review the steps for checking blood glucose with a glucose monitor. Show patients how to check their own blood glucose levels. CHWs may want to wear gloves if they handle someone else’s glucose strip or kit. Then watch as they take their own measurements. Reassure them as they prick their fingers. Give them feedback on how they are doing. Ask the CHWs if they are comfortable helping someone check his or her blood glucose level, and ask what questions they may have.

► **Talking Points:**

Ask your doctor to tell you the range of blood glucose levels that is normal for you. Each time you check your blood glucose level, write down the number, date, and the time of day in a logbook or on a record sheet. If you need a daily logbook, ask your doctor or diabetes educator for one.

Activity 9–9: Daily Sugar Log Review the activity handout and how to use it. Ask the CHWs why someone with diabetes should keep a log of his or her blood glucose readings.

Keeping track of your blood glucose every day is one of the best ways you can take charge of your diabetes.

Many people with diabetes do not check their blood glucose regularly. But you can’t be sure your diabetes is under control if you don’t check your blood sugar levels.

According to the American Diabetes Association, your blood glucose reading should be between 70 and 130 in the morning before eating breakfast. It should be below 180, 1 to 2 hours after the start of a meal.

Activity 9–10: Roadblocks to Checking Blood Glucose. Mrs. R. is retired and stays home most of the time. Today, she has come into the clinic to get the result of her A1C test. It is 9.5, and she is upset. She meets with Claudia, a CHW. Claudia asks Mrs. R. to tell her about her typical day. Mrs. R. says she is too tired to go for walks. She is too tired to cook and mostly eats snack food and canned food. Claudia asks if she checks her blood sugar. Mrs. R. says no.

Ask CHWs to role-play Mrs. R and Claudia. How can Claudia help Mrs. R. overcome roadblocks to checking her blood sugar?

Review the handout and have the CHWs add their ideas to the list.

Continue the role-playing activity. Have the CHWs propose simple steps and goals that Claudia could suggest to Mrs. R. to help her become more active and eat better.

Becoming more active, eating better, and checking her blood sugar will help Mrs. R. feel better and less tired.

How can Claudia follow up with Mrs. R. and help her keep motivated to better manage her diabetes?

Talk about the other roadblocks in activity handout 9-10. Do the CHWs have other responses to the roadblocks? Can they think of other roadblocks?

J. How does a Person with Diabetes Control High or Low Blood Glucose?

► Talking Points:

We have talked about how important it is for everyone with diabetes to keep blood sugar levels under control to prevent the long-term problems diabetes causes. Diabetes can damage the

- Eyes.
- Kidneys.
- Nerves.
- Heart and blood vessels.

- Feet.
- Teeth and gums.

People can have short-term problems with blood sugar levels that are either too high or too low. These problems happen when a person with diabetes loses control over his or her blood sugar level. To work best with people in your community who have diabetes, you should know and recognize the signs of high and low blood sugar.

Having Problems with Low Blood Glucose

► Talking Points:

In general, a blood glucose reading lower than 70 mg/dL is too low. If you take insulin or diabetes pills, you can have low blood glucose (also called hypoglycemia). Low blood glucose is usually caused by

- Eating less or later than usual.
- Being more active than usual.
- Taking too much diabetes medicine.
- Drinking beer, wine, or liquor may also cause low blood glucose or make it worse.

Activity 9–11: Low Blood Sugar Blood sugar levels should stay within a certain range. Blood sugar levels that are too low can cause serious problems for a person with diabetes. As you talk about low blood sugar, use the information below and in the handout. Ask the CHWs about their own experience with low blood sugar. What has made them suspect low blood sugar in community members? What did the community members do to raise their blood sugar levels?

Signs of Low Blood Glucose

Some possible signs of low blood glucose are feeling nervous, shaky, or sweaty. Sometimes people just feel tired.

The signs may be mild at first. But a low glucose level can quickly drop much lower if you don't treat it. When your glucose level is very low, you may get confused, pass out, or have seizures.

If you have any signs that your glucose may be low, test it right away. **If it's less than 60 to 70 mg/dL, you need to treat it right away.**

Treating Low Blood Glucose

► Talking Points:

If you feel like your blood glucose is getting too low but you can't test it right then, play it safe—go ahead and treat it. Eat or drink 10 to 15 grams of carbohydrate right away. Examples of foods and drinks that have this amount are:

Fruit juice and soda pop (not diet)—½ cup or 4 ounces

Glucose tablets—3–4

Sugar or honey—4 teaspoons

Hard candy—3–5 pieces

Check your blood glucose again in 15 minutes. Eat another 10 to 15 grams of carbohydrate every 15 minutes until your blood glucose is above 70 mg/dL.

Eating or drinking an item from the list will keep your glucose up for only about 30 minutes. So, if your next planned meal or snack is more than 30 minutes away, you should go ahead and eat something like crackers and a tablespoon of peanut butter.

Keeping track of your blood glucose is a good way to know when it tends to run low. Think about what may be causing them. If you think you know the reason, write it next to your numbers. Show your logbook or record sheet to your health care team. Be sure to let them know if you're having a number of low glucose readings a week.

Tell family members, close friends, teachers, and people at work that you have diabetes. Tell them how to know when your blood glucose is low. Show them what to do if you can't treat yourself. Someone will need to give you fruit juice, soda pop (not diet), or sugar.

Be ready. Always carry some kind of food or drink with you to treat low blood sugar.

Having Problems with High Blood Glucose

► Talking Points:

For most people, blood glucose levels that stay higher than 140 mg/dL (before meals) are too high. Talk with your health care team about the glucose range that is best for you.

High blood glucose among people with diabetes is usually caused by

- Eating too much food.
- Being less active than usual.

- Taking too little diabetes medicine.
- Being sick.
- Being stressed.

Over time, high blood glucose can damage body organs. If the blood sugar is too high, a person can slip into a coma and die. For this reason, many people with diabetes try to keep their blood glucose in control as much as they can.

Activity 9–12: High Blood Sugar High blood sugar levels can be very dangerous. Ask the CHWs about their own experience with high blood sugar. What has made them suspect that community members had high blood sugar levels? What have they done or told others to do to lower blood sugar levels? Review Handout 9-12.

Signs of High Blood Glucose

► Talking Points:

Some common signs of high blood glucose are

- Having a dry mouth.
- Being thirsty.
- Having to urinate often.
- Feeling tired.
- Having blurred vision.
- Losing weight without trying.

If your glucose is very high, you may have stomach pain, feel sick to your stomach, or even throw up. This is an emergency and you need to go to the hospital right away.

If you have any signs that your blood glucose is high, check it. In your logbook or on your record sheet, write down your glucose reading and the time you did the test. If your glucose is high, think about what could have caused it to go up. If you think you know of something, write this down next to your glucose numbers. Let your health care team know about these high numbers.

Keep a balance

Try to stay with your food and activity plan as much as you can. Drink water. Take your diabetes medicine about the same time each day. Work with your health care team to set goals for weight, blood glucose level, and activity.

Test your blood glucose

Keep track of your blood glucose and go over your records often. You'll learn how certain foods or activities affect your glucose.

Show your records to your health care team. Ask how you can change your food, activity, and medicine to avoid or treat high blood glucose. Ask when you should call for help.

K. How Do People Manage Their Diabetes When They Are Away from Home or Sick?

► Talking Points:

Taking care of yourself and managing your diabetes is something you need to do every day, no matter where you are. The next two activity handouts give some hints for managing diabetes when you're away from home or when you're sick.

Activity 9–13: Managing Your Diabetes at Work, School, and During Travel People who have just been told they have diabetes may find self-care hard at first, but with a little practice self-care becomes a part of daily life. Talk with the CHWs about the tips on the handout for managing diabetes away from home. Can they think of other tips?

Activity 9–14: Sick Day Guidelines for People with Diabetes Being sick can cause extra problems for people who have diabetes. Review the handout with the CHWs and point out that it is very important that people with diabetes continue to check their blood sugar and eat right even when they are sick. Do they have other tips?

L. How Do You Set Goals?

► Talking Points:

As you've already learned, diabetes is a serious disease that can lead to other serious health problems, such as kidney failure, blindness, and leg amputations. To keep your blood sugar within good limits and to avoid future problems, you must manage and control your diabetes.

Setting goals for yourself is a good place to start. Putting your goal (something you want to reach) in writing can help you stay focused on the end result and stay motivated.

Your goals for managing your diabetes should be specific. Instead of setting a very general goal, such as “I’ll do a better job controlling my diabetes,” set smaller, more specific goals, such as “I’ll walk for 15 minutes every day,” or “I’ll check my blood sugar four times a day.”

Be realistic when setting a goal. Make it something you can do. Take small steps. You’ll feel better about yourself and will be more motivated when you are reaching your goals. Once you reach these goals, go ahead and set new goals.

Activity 9–15: My Goals Review the activity handout with the CHWs. Talk about how they can use this handout to help people set goals to control their diabetes. Answer any questions they may have.

M. What Actions You Can Take To Manage Your Diabetes

Activity 9–16: Actions People with Diabetes Can Take People can take many actions to control their diabetes. Ask the CHWs what they would suggest people can do to manage their diabetes. Review the activity handout with them.

Activity 9–17: What Community Health Workers Can Do for People at Risk for Diabetes or Who Have Diabetes Ask the CHWs to share ways to help people in their communities who have diabetes or who are at risk for diabetes. Review the handout and have them add their ideas to the list.

Posttest:

Circle letters for ALL correct answers. A question may have more than one correct answer.

1. Why is it important for people with diabetes to be physically active?

- a. It can help control blood glucose.
- b. It can help control your blood pressure.
- c. It can give you more energy.

2. What are the signs of diabetes?

- a. Blurred vision.
- b. Lots of energy.
- c. Slow healing sores.
- d. Very thirsty all the time.

3. What are the risks factors for diabetes that can be controlled?

- a. Weight.
- b. Smoking.
- c. Family history.
- d. Physical activity.

4. If your blood sugar is very low, which of the following can you drink to raise your blood sugar?

- a. Orange juice.
- b. Plain tea without sugar.
- c. Wine.

5. Diabetes can cause which of the following conditions?

- a. Arthritis.
- b. Blindness.
- c. Heart disease.
- d. Gum disease.

6. Which is not a sign of low blood sugar?

- a. Sweating.
- b. Confusion.
- c. Fatigue.
- d. Being hungry.

Answers to questions:

1. a, b

2. a, c, d

3. a, b, d

4. a

5. b, c, d

6.d

Risk Factors for Type 2 Diabetes

Activity 9–1

Check off the risk factors you have.

You are more likely to get type 2 diabetes if you

- Are overweight, especially if I have extra weight around your waist.
- Are not physically active.
- Have a parent, brother, or sister with diabetes.
- Are African American, American Indian, Alaska Native, Asian American, Native Hispanic/Latino or Asian/Pacific Islander.
- Had diabetes while pregnant (gestational diabetes).
- Have given birth to a baby weighing 9 pounds (4.1 kg) or more.
- Have high blood pressure
 - Your blood pressure is 140/90 mmHg or higher.
 - Your doctor has told you that you have high blood pressure.
- Have cholesterol levels are not normal
- Your LDL cholesterol (“bad” cholesterol) is 100 mg/dL or higher.

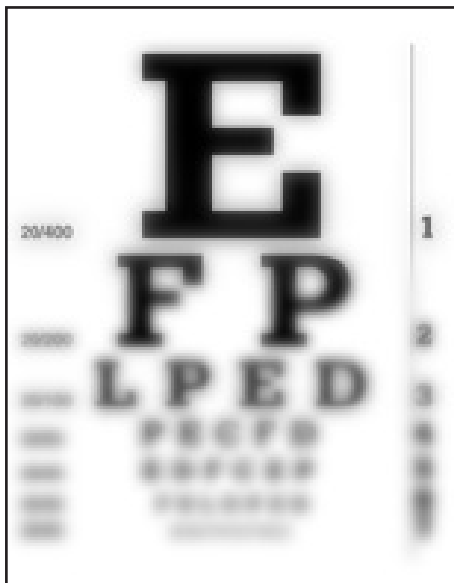


What Are the Signs of Diabetes?

Activity 9–2

The signs of diabetes are

- Being very thirsty.
- Being very hungry.
- Needing to pass urine a lot—often at night.
- Having blurry vision from time to time.
- Feeling very tired much of the time.
- Losing weight without really trying.
- Having very dry skin.
- Having sores that are slow to heal.
- Getting more infections than usual.
- Losing feeling or getting a tingling feeling in the feet.
- Getting more infections than usual.



Steps to Managing Your Diabetes for Life

Activity 9–3

Step 1. Learn about diabetes www.YourDiabetesInfo.org.

Step 2. Know your diabetes ABCs.

Step 3. Learn how to live with diabetes.

Step 4. Get routine care to stay healthy.



Step 1. Steps to Managing Your Diabetes for Life

Activity 9–3

- Do people you know it is important to take their diabetes seriously?
- What do people in your community know about diabetes?
- How can lifestyle changes help people with prediabetes or diabetes?
- These are helpful steps to teach community members.



Step 2. Know your diabetes ABCs.

Activity 9–4

How well do people in your community know their diabetes ABC's?

People should talk to their health care team about how to manage their A1C, blood pressure, and cholesterol. This can help lower their chances of having a heart attack, stroke, or other diabetes problems.

You can help people in the community know that the ABCs of diabetes stands for:

A for the A1C Test (A-one-C).

What is it?

The A1C is a blood test that measures your average blood sugar level over the past 3 months. It is different from the blood sugar checks you do each day.

Why is it important?

You need to know your blood sugar levels over time. You don't want those numbers to get too high. High levels of blood sugar can hurt your heart and blood vessels, kidneys, feet, and eyes.

What is the A1C goal?

The A1C goal for many people with diabetes is below 7. Ask what your goal should be.



B for Blood Pressure.

What is it?

Blood pressure is the force of your blood against the wall of your blood vessels.

Why is it important?

If your blood pressure gets too high, it makes your heart work too hard. It can cause a heart attack, stroke, and kidney disease.

What is the blood pressure goal?

Your blood pressure goal should be below 140/90 unless your doctor helps you set a different goal.

C for Cholesterol (ko-LESS-tuh-ruhl).

What is it?

There are two kinds of cholesterol in your blood: LDL and HDL.


LDL or “bad” cholesterol can build up and clog your blood vessels. It can cause a heart attack or stroke. The LDL goal for most people with diabetes should be below 100.

HDL or “good” cholesterol helps remove the “bad” cholesterol from your blood vessels. The HDL for most people with diabetes should be more than 40 in men and more than 50 in women.

What are the LDL and HDL goals for people with diabetes?

Ask what your cholesterol numbers should be. If you are older than 40 years of age, you may need to take a statin drug for heart health.

Actions you can take

-  Ask your health care team
 - What your A1C, blood pressure, and cholesterol numbers are and what they should be. Your ABC goals will depend on how long you have had diabetes, other health problems, and how hard your diabetes is to manage.
 - What you can do to reach your ABC goals.



Step 3. Learn How to Live Well with Diabetes

Activity 9–5

Eat well

How would you advise community members about eating well?

Make a **diabetes meal plan** with help from your health care team.

Eat regular meals. Ask your health care team to help you choose a meal plan. They may suggest you eat three meals and a snack or two every day at about the same times.

Eat a variety of foods.

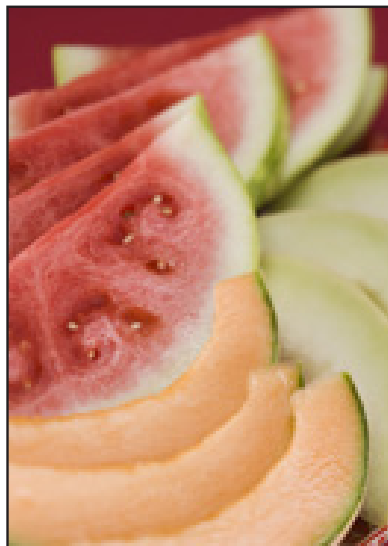
Fill half of your plate with vegetables and fruit. Fill one quarter of the plate with lean protein, such as beans, or fish, or turkey or chicken without the skin. Fill the other quarter of the plate with a whole grains, such as brown rice or whole wheat pasta. Include fat-free and low-fat milk.

Eat less fat. Avoid fried foods. Choose foods that are baked, broiled, grilled, boiled, or steamed.

Eat less sugar. Treat food and drinks with sugar as sometime food not everyday food.

Eat less sodium (salt).

Eat smaller portions of food.



Step 3. Learn How to Live Well with Diabetes

Activity 9–6

Be Active

How can you help people in your community become more active?

Being active can help you control your blood glucose and your weight. It can help prevent heart and blood flow problems. Many people say they feel better when they are more active.

Start with a little. Set a small goal. If you haven't been doing any physical activity, talk to your health care team before you begin. Walking fast, working in the yard or house, riding a bike, swimming, playing soccer or other sports, washing a car, and dancing are good ways to start. Start by taking 10-minute walks, 3 times a day. As you become stronger, you can add a few extra minutes to your physical activity.

Do some physical activity every day. Plan to get at least 150 minutes of physical activity a week. Twice a week, work to increase your muscle strength. Use stretch bands or try push-ups and sit-ups.

Choose an activity you enjoy. The more fun it is, the more likely you will do it each day. It's also fun to be active with family members and friends.

If you're already active now, but want to become more active, talk to your health care team about a safe plan.



STEP 4: Get routine care to stay healthy.

Activity 9–7

Are people in your community who have diabetes getting regular health care?

If not, what can you do to help them get regular health care?

See your health care team **at least twice a year** to find and treat any problems early.

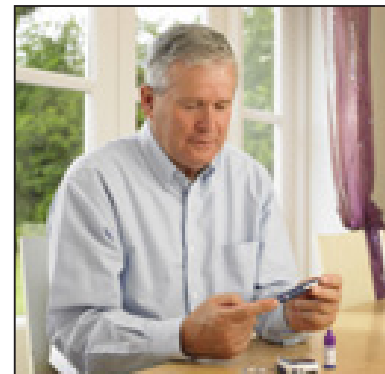
At each visit, be sure you have a

- Blood pressure check.
- Foot check.
- Weight check.
- Review your self-care plan.



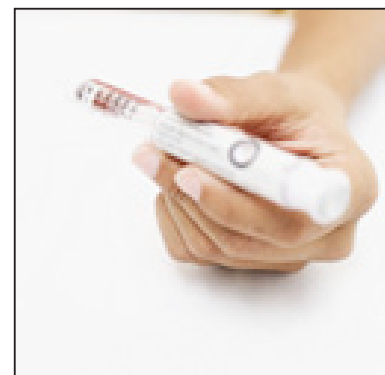
Two times each year, have an

- A1C test. It may be checked more often if it is over 7.



Once each year, be sure you have a

- Cholesterol test.
- Complete foot exam.
- Dental exam to check teeth and gums.
- Dilated eye exam to check for eye problems.
- Flu shot.
- Urine and a blood test to check for kidney problems.



At least once in your lifetime, get a

- Pneumonia (nu-mo-nya) shot.
- Hepatitis B (HEP-uh-TY-tiss) shot.

Checking Your Blood Glucose

Activity 9–8

It's important to your health to control your blood glucose (also called blood sugar). Keeping your glucose level close to normal helps prevent or delay some diabetes problems, such as eye disease, kidney disease, and nerve damage. One thing that can help you control your glucose level is to keep track of it. You can do this by

- Testing your own glucose a number of times each day. Many people with diabetes test their glucose 2 to 4 times a day.
- Getting an A1C test from your health care provider about every 3 months.

Checking Your Blood Glucose Each Day Is Key to Taking Charge of Your Diabetes

You can do a test to find out what your blood glucose is at any moment. Your health care team can show you how to do the test yourself. Using a finger prick, you place a drop of blood on a special coated strip, which “reads” your blood glucose. Many people use an electronic blood glucose meter to get this reading.

Blood glucose testing can help you understand how food, physical activity, and diabetes medicine affect your glucose levels. Testing can help you make day-to-day choices about how to balance these things. It can also tell you when your glucose is too low or too high so that you can treat these problems.



Ask your health care team to help you set a goal for your glucose range and show you how to record your glucose readings in a logbook or record sheet.

Your health care team will tell you what your blood sugar range should be. Most often the range is

- 70–130 before eating.
- Less than 180, 2 hours after eating.

Checking your blood sugar is your best tool to control your diabetes. This check tells you your blood sugar level at any one time. Keep a log by writing down your blood sugar number and the time of day each time you check your blood sugar. Take the log

and your glucose monitor with you when you visit your healthcare team. The log provides a picture of your body's response to your diabetes care plan. Blood sugar checks let you see what works and what doesn't. Then you and your health care team can make changes if the current plan isn't working.

From Take Charge of Your Diabetes

<http://www.cdc.gov/diabetes/pubs/tcyd/ktrack.htm>.



Self-Checks of Blood Sugar

Activity 9–9

How to use this log

This card has three sections. Each section tells you when to check your blood sugar—before each meal, 1 to 2 hours after each meal, and at bedtime.

Each time you check your blood sugar, write down the date, time, and results. Take this log with you on your health care visits. Show it to your health care team.

Talk about your goals and how you are doing.

Goals	Date	Time	Result
My blood sugar before meals: Usual goal 70 to 130 My goal: <hr/>			
My blood sugar 1–2 hours after meals: Usual goal below 180 My goal: <hr/>			
My blood sugar at bedtime: Usual goal 110 to 150 My goal: <hr/>			

Source: http://ndep.nih.gov/media/NDEP67_4Steps_4c_508.pdf



Roadblocks to Checking Blood Sugar

Activity 9–10

Reasons for not Testing	Solutions
I don't have time	Plan your time by using a log that has reminders. Make checking your blood sugar an important habit.
I'm not comfortable checking my blood sugar. It makes me stressed.	One of the best ways to relieve stress is by knowing you are on track with controlling your blood sugar. Set goals for yourself for checking blood sugar and keep them. If you forget, start checking again as soon as you can.
I don't have my monitoring supplies on hand.	Keep your supplies with you when you leave the house, or keep extra supplies at work.
I forget to check it.	Write reminder notes. Keep your monitoring supplies and log with you. Ask family members to remind you.
I don't know why I'm supposed to check it. What difference does it make?	<p>It's important to check your blood sugar to find out if it's in the range that's normal for you or too high. Eating too much food, being less active than usual, or taking too little diabetes medicine are some reasons your blood sugar may be high when you check it. Your blood sugar can also go up when you're sick or under stress. Over time, high blood sugar can damage body organs. For this reason, it is very important to keep your blood sugar in control as much as you can.</p> <p>You can keep your blood sugar (blood glucose) at a health level if you</p> <ul style="list-style-type: none"> • Eat about the same amount of food each day. • Eat at about the same times each day. • Take your medicines at the same times each day. • Exercise at the same times each day. • Every day, choose foods from a variety of vegetables, fruits, whole grains, low fat dairy products, meat or chicken, fish. How much of each depends on how many calories you need a day. • Limit the amounts of fats and sweets you eat each day.

Reasons for not Testing	Solutions
<p>I don't have a private place where I can check it.</p>	<p>If you feel you need a private place, you can check your blood sugar in your car before lunch or in the restroom; or you might find an empty room at work. Ask your manager for a private place at work to check your blood sugar.</p>
<p>It hurts</p>	<p>The American Diabetes Association offers these tips:</p> <ul style="list-style-type: none"> • Don't check using the same finger all the time. Choose a different finger every time you check • Prick the side of the fingertip by the nail, not right on top. The side hurts less and is less likely to bruise. <p>Several companies offer blood glucose monitoring equipment that can be used on sites other than your fingers, such as forearms, side of hands, and thighs. These sites may be less sensitive because they have fewer nerve endings. As long as you use the proper technique, you can have an accurate and less painful blood sugar check.</p>
<p>I can't afford the testing strips</p>	<p>If you can't pay for your diabetes medicines or testing equipment, you should tell your health care provider. Your doctor may know of local programs that can help or even give you free samples.</p> <p>If you have Medicare, it will pay part of the cost of blood sugar testing equipment and diabetes-related services. To learn more about Medicare coverage of diabetes supplies and services, go to this website: www.medicare.gov/Publications/Pubs/pdf/11022.pdf</p> <p>This information is also available in Spanish at www.medicare.gov/Publications/Pubs/pdf/11022_S.pdf.</p> <p>In addition, drug companies that sell insulin or diabetes medications usually have patient assistance programs. Such programs are available only through a doctor.</p> <p>The Pharmaceutical Research and Manufacturers of America and its member companies sponsor an interactive Web site with information on drug assistance programs at www.pparx.org/Intro.php.</p>

Low Blood Sugar

Activity 9–11

A blood sugar reading lower than 70 mg/dl is too low. If you take insulin or diabetes pills, you can have low blood sugar.

Low blood sugar is usually caused by eating less or later than usual, being more active than usual, or taking too much diabetes medicine.

Drinking beer, wine, or liquor may also cause low blood sugar or make it worse.

Signs of Low Blood Sugar

Some possible signs of low blood sugar are feeling nervous, feeling shaky, or sweating. Sometimes people who have low blood sugar just feel tired.

The signs may be mild at first. But a low blood sugar level can quickly drop much lower if you don't treat it. When your blood sugar level is very low, you may get confused, pass out, or have seizures.

If you have any signs that your blood sugar (blood glucose) may be low, test it right away. If it's less than 60 mg/dl, you need to treat it right away. See below for ways to treat low blood sugar.

Foods and Liquids for Treating Low Blood Sugar (each item equals about 10 to 15 grams of carbohydrates)



Food Item	Amount
Sugar Packets	2 to 3
Fruit juice	1/2 cup (4 ounces)
Soda pop (not diet)	1/2 cup (4 ounces)
Hard candy	3 to 5 pieces
Sugar or honey	3 teaspoons
Glucose tablets	2 to 3



Treating Low Blood Sugar

If you feel as if your blood sugar is getting too low but you can't test it right then, play it safe—go ahead and treat it. Eat 10 to 15 grams of carbohydrate right away.

Check your blood sugar again in 15 minutes. If your blood sugar is 70 mg/dl or below, eat another 10 to 15 grams of carbohydrate and test your blood 15 minutes later. Continue these two steps until your blood sugar is above 70 mg/dl.

Eating or drinking an item from the list in the box will keep your blood sugar up for only about 30 minutes. So if your next planned meal or snack is more than 30 minutes away, you should go ahead and eat something, such as crackers with a tablespoon of peanut butter or a slice of cheese.

In your blood sugar log, write down your blood sugar numbers and the times when levels are low. Think about what may be causing your levels to drop. If you think you know the reason, write it in the comments section of the log. You may need to call health care team to talk about changing your diet, activity, or diabetes medicine.

Tell family members, close friends, teachers, and people at work that you have diabetes. Tell them the signs of low blood sugar so that they will know if your blood sugar becomes low. Show them what to do if you can't treat yourself. Someone will need to give you fruit juice, soda pop (not diet), or sugar.

Waiting to treat low blood sugar is not safe. You may be in danger of passing out. If you get confused, pass out, or have a seizure, you need emergency help. Don't try to drive yourself to get help. Be prepared for an emergency, and...

Call 9-1-1!



High Blood Sugar

Activity 9–12

For most people, blood sugar levels that stay higher than 140 mg/dl (before meals) are too high. Talk with your doctor about the blood sugar range that is best for you.

Eating too much food, being less active than usual, or taking too little diabetes medicine are some common reasons for high blood sugar (or hyperglycemia). Your blood sugar can also go up when you're sick or under stress.

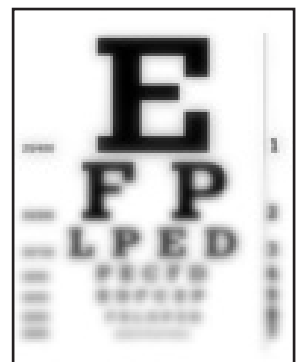
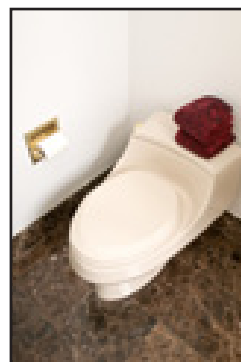
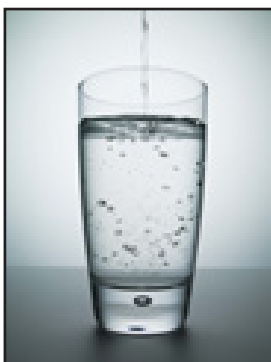
Over time, high blood sugar can damage body organs. For this reason, people with diabetes try to keep their blood sugar in control as much as they can.

If you have type 1 diabetes, ask your doctor about a condition called diabetic ketoacidosis. Some people with diabetes are in danger of developing diabetic ketoacidosis when their blood sugar level stays high. You can buy urine ketone strips at the drugstore. If you have ketones in your urine, call your doctor right away. The most common reason for diabetic ketoacidosis is not taking your insulin or being sick.

Signs of High Blood Sugar

Common signs of high blood sugar include

- Dry mouth.
- Thirst.
- Having to urinate often.
- Feeling tired.
- Blurred vision.
- Losing weight without trying.



Your blood sugar is more likely to go up when you're sick—for example, when you have the flu or other infection. You'll need to take special care of yourself during these times.

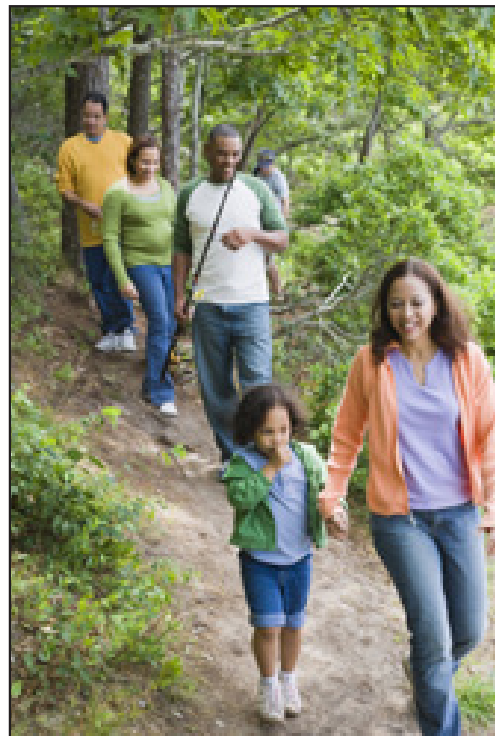
If your glucose is very high, you may have stomach pain, feel sick to your stomach, or even throw up.

If you have any signs that your blood sugar is high, test your blood sugar. On your log, write down your blood sugar reading and the time of the test. If your blood sugar level is high, think about what could have caused it to go up. If you think you know the reason, write next to the glucose reading in your log.

Ask your doctor when you should call for help.

Preventing High Blood Sugar

- Keep a balance of food, activity, and medicine.
- Try to stay with your food and activity plan as much as you can. Ask your care team to send you to a diabetes educator who can help you develop a food plan. You'll learn about carbohydrate serving sizes and how many carbohydrates you can eat a day. You can make a big difference in your blood sugar level by paying attention to what you eat and how much you eat.
- Drink water.
- Take your diabetes medicine at about the same time each day.
- Work with your health care team to set goals for weight, blood sugar level, and activity.
- Test your blood sugar level regularly. Keep track of your blood sugar readings and go over your records often to look for patterns. You'll learn how certain foods or activities affect your blood sugar.
- Show your blood sugar records to your doctor.
- Ask your doctor how you can change your food, activity, and medicine to avoid or treat high blood sugar.



Staying in charge of your diabetes takes planning ahead. You won't always have the same routine day after day, but no matter what your schedule is or where you are, you can continue your plan for managing your diabetes by following these suggestions:

Remember:

- Stay as close to your eating, activity, and medicine schedule as you can
- If you take insulin-
 - Always wear or carry identification that says you have diabetes
 - Always keep with you hard candy or something to treat low blood sugar

At Work and School

- Show some people at work or school how to help you if you should ever have a problem that needs immediate attention, such as dizziness or confusion from having our blood sugar level fall too low.
- Give them written instructions on how to tell when your blood sugar has fallen to low and how to treat it. For example, if you suddenly feel very shaky or very hungry they should give you 2 to 3 glucose tablets or 1/2 cup of fruit juice.

During travel

- Keep snacks with you that could be used to prevent, or treat, low blood sugar
- Take blood sugar testings supplies with you
- Take along all the diabetes medicine you'll need. Keep medicine in their original container with the printed label that clearly identifies the medicine.
- Test your blood sugar often, and keep track of your readings.
- Wear or carry identification that says you have diabetes
- Let others know how they can help you if you have a problem with your blood sugar becoming too low or too high.



Sick Day Guidelines for People with Diabetes

Activity 9–14

If you have diabetes, even if your blood sugars are in good control, and are sick with flu-like illness, you should follow these extra steps.

- Be sure to keep taking your diabetes pills or insulin. Don't stop taking them even if you can't eat. Your doctor may even advise you to take more insulin while you are sick.
- Test your blood glucose every four hours, and keep track of the results.
- Drink extra water, and try to eat as you normally would. If you can't, try to have soft foods and liquids that are about the same amount that you usually eat.
- Weigh yourself every day. Losing weight without trying is a sign of high blood glucose.
- Check your temperature every morning and evening. A fever may be a sign of infection.



Call for Help.

Call your care team or go to an emergency room if any of the following happen to you:

- You feel too sick to eat normally and are unable to keep down food for more than 6 hours.
- You're having severe diarrhea.
- You lose 5 pounds or more.
- Your temperature is over 101 degrees F.
- Your blood glucose is lower than 60 mg/dL or remains over 240 mg/dL on 2 checks.
- You have moderate or large amounts of ketones in your urine.
- You're having trouble breathing.
- You feel sleepy or can't think clearly.



My Goals

Activity 9-15

Date _____

My goal for healthy eating:

(For example; I will eat two servings (1/2 cup each) of fresh fruit and three servings of vegetables (1/2 cup each) on each of five days this week.)

My goal for physical activity:

(For example: I will walk in the park for 30 minutes each weekday, Monday through Friday, this week.)

My goal for checking my blood sugar:

(For example: I will check my blood sugar three times each day this week.)

How did I do? (Circle the answer that is most true.)

Not very well.

Need to do better.

Almost achieved goals.

Great! Met my goals.

Actions People with Diabetes Can Take

Activity 9–16

- ✓ Ask your health care team what type of diabetes you have.
- ✓ Learn why diabetes is serious.
- ✓ Learn how caring for your diabetes helps you feel better today and in the future.
- ✓ Help your health care team make a diabetes care plan that will work for you.
- ✓ Learn to make wise choices for your diabetes care each day.
- ✓ Ask for a healthy meal plan.
- ✓ Ask about ways to be more active.
- ✓ Ask how and when to test your blood sugar and how to use the results to manage your diabetes.
- ✓ Use these tips to help with your self care.
- ✓ Talk about how your diabetes plan is working for you each time you visit your health care team.
- ✓ Ask your health care team about these and other tests you may need. Ask what your results mean.
- ✓ Write down the date and time of your next visit.
- ✓ Keep a record of your diabetes care.
- ✓ If you have Medicare, check your plan for benefits.



Four Steps to Manage Your Diabetes for Life. National Diabetes Education Program.
<http://ndep.nih.gov/publications/PublicationDetail.aspx?PubId=4#page6>

What Community Health Workers Can Do to Help People Who Are at Risk for Diabetes

Help People Get the Health Care They Need

- Teach community members about
 - The risk factors for diabetes.
 - The signs of diabetes.
 - Their ABCs.
- Teach community members about high blood sugar.
 - They should get screened for high blood sugar.
 - Controlling high blood sugar is important.
 - Uncontrolled high blood sugar will damage their hearts, blood vessels, eyes, and kidneys.
 - If left untreated, high blood sugar will put them at high risk for heart disease, heart attack, stroke, kidney disease, and other disabling diseases and conditions.
- Encourage community members to see their doctors regularly and ask to be checked for diabetes.

Ways to Help People Make Better Lifestyle Choices

Teach people to take the following steps:

- Get at least 150 minutes of physical activity a week.
- Eat a healthy diet.
- Eat smaller portions of food.
- Don't
- Lose weight (if they are overweight).
- Check with their doctor about having alcoholic drinks.

What Community Health Workers Can Do to Help People Who Already Have Diabetes

All of the suggestions for people at risk for high blood sugar apply, plus the following

- Help people set goals to control their diabetes.
- Help those with diabetes understand what they need to do to take care of themselves, including checking their blood glucose daily.
- Help people with diabetes understand the importance of regularly taking their diabetes and other medicines. They should not stop taking their medicines even if they feel better.
- Help people learn how to keep track of the medicines they are taking.
- Encourage people with diabetes to have an eye exam once each year.
- Encourage people with diabetes to see their dentists once a year.
- Encourage people to take A1C (blood glucose test) at least twice a year.
- Encourage people with diabetes to see their doctor regularly to get their blood pressure, cholesterol, and weight checked.



Objectives

By the end of this session, community health workers will be able to

- Talk about the patient's role and responsibilities as a member of the health care team.
- Name three things a patient should do to prepare for a doctor's visit.
- Name three questions a patient should ask during a visit to the doctor.
- Be familiar with important information to have ready in case of emergency.

Activities

- 10-1: Daily Health Diary
 - 10-2: Ask Me Three
 - 10-3: Emergency Information
-

Chapter Outline

- A. Preparing for Your Visit to the Doctor
- B. During a Visit with the Doctor
- C. After a Visit with the Doctor
- D. Planning for an Emergency

Pretest:

Circle letters for ALL correct answers. A question may have more than one correct answer.

What should a person do to prepare for a doctor's visit?

- a. Bring a newspaper article about a problem he or she thinks is interesting.
- b. Make a list of medicines and other over-the-counter medicines, vitamins, supplements and other products the person is taking.
- c. Bring a notebook or paper and pen.

2. What should a person ask during a visit to the doctor?

- a. What is my main problem?
- b. What do I need to do?
- c. Why is this important for me to do?

3. What information should a person have ready in case of a medical emergency?

- a. Health Insurance information.
- b. Medicines he or she no longer takes.
- c. Family or friends to call.

► Talking Points:

In past years, most people considered their doctor to be “the boss” for issues concerning their health. You were expected to do what the doctor said—no questions asked.

But the role of the patient in health care has changed. Now, you are your doctor’s partner in health care. Today, a good patient-doctor relationship is more of a partnership. You and your doctor can work as a team, along with nurse practitioners, nurses, physician assistants, pharmacists, CHWs, and others to help you with your medical problems and keep you healthy.

One way to get high-quality health care is to find and use information and take an active role in all of the decisions made about your care.

It’s not always easy to take an active role in your care. Most doctors plan only 10 to 15 minutes for each visit. With such a short amount of time, you may not feel comfortable taking the time to ask questions, or you may feel rushed and may have trouble remembering what you wanted to ask.

In this session we’ll talk about what you can do before, during, and after your visit. You’ll know what questions to ask your doctor, when to ask them, and why it’s important to talk to your doctor and get answers to your questions. Afterwards, we’ll practice what you’ve learned about talking to your doctor.

We’ll also talk about some things you should do to prepare yourself in case of emergency.

A. Preparing for Your Visit to the Doctor

► Talking Points:

As a member of your own health care team, you need to be ready for your visit with the doctor, especially if you are visiting this doctor for the first time.

Before your visit, make sure the doctor’s office has a list of all the other doctors you see. Also, check with the office staff to see if they have your medical records from your other doctors.

You should also take your insurance cards, names, and phone numbers of other doctors you see, and your medical records if the doctor doesn’t already have them.

You should also bring your health diary (a notebook) in which you write down any signs that something is wrong with your body (symptoms). We’ll talk about the health diary a little later.

It’s always good to take notes or bring a family member or friend along who can take notes during the visit so that you’ll have a record of the doctor’s advice and can be sure to follow it.

Let's talk in a little more detail about things you can do to get ready for a doctor's visit.

Make sure your doctor has your medical records.

Your doctor can better treat your illness if he or she has a complete picture of your overall health. That's why it's a good idea for your doctor to have a copy of all your medical records.

There are a few ways that your doctor can get your medical records from other doctors or health care centers

- Your new doctor can request records from your other doctors.
- If your primary care doctor sends you to a new doctor or to a specialist (a doctor who takes care of a certain type of problem), he or she will send your medical records to the doctor or specialist.
- You can ask for copies of your records from your other doctors and take them to the visit yourself.

When you make an appointment with a new doctor or a specialist, ask the office staff if they will be asking for your records from your other doctors. Make sure they have the names of all the doctors you are seeing. You should know the first and last names of every doctor you see and his or her office address and phone number.

If you plan to ask a doctor for copies of your records to take to your appointment yourself, be sure to give the office staff enough time to make the copies for you.

► **Talking Points:**

Bring a list of all the doctors you are seeing.

Even if the doctor you are visiting has your medical records from your other doctors, you should still make a list of all the doctors you are currently seeing or have seen in the past five years, to take with you to your doctor's visit. Besides the doctor's name, write down the type of doctor, such as heart doctor, kidney doctor, or foot doctor. If you can remember when you last saw each of your doctors, write this information down.

Bring a list of all the medicines you take, or bring the medicines themselves.

The best thing to do is to put all of the medicine you are taking in a bag and take it with you to your appointment. Make sure you take the original medicine bottles or packages. If you can't do this, make a list of all the medicines, how often you take each of them, and how much you take.

Be sure to include all over-the-counter medicines, vitamins, and herbal products or other supplements that a doctor did not prescribe for you—such as cold and sinus medicine and pain pills.

Bring a record of your symptoms or problems.

If you are seeing the doctor because you've not been feeling well, it's important that your doctor understands exactly what your symptoms are (what and how you feel), when they happen, and how often they happen.

Keep a list or write in your health diary about anything that feels unusual, hurts, or is not normal for you or your body. If you have pain, take time to think about how it feels. Is it a sharp pain that comes and goes or is it a constant, dull ache? Do you feel pain only when you are active, or do you feel it when you are resting? Do you feel tired all the time, or do you only begin to feel tired in the afternoon? Have you ever felt like this before?

Keep a health diary.

You can keep track of how you feel as part of your health diary. Examples of a diary could be a notebook, or printed pages from your computer, or a record on your cell phone.

If you are being treated for high blood pressure, high cholesterol, diabetes, heart failure, or another illness, you should keep a health diary.

You can keep a health diary by filling out a simple form each day. You may want to write down your weight, blood pressure, blood glucose, what you eat, and what you do for physical activity. Write down how you feel. For example, do you have pain, tiredness, nausea, numbness, or dizziness? Bring your health diary with you when you visit the doctor.

Activity 10–1 Daily Health Diary Review the daily health diary and the items to be listed. Ask CHWs to share ways they might encourage people in their community to keep a health diary. Are there cell phone apps that community members could use?

► Talking Points:

Write down the questions you want to ask the doctor.

Take time to sit and think of questions you would like to ask your doctor. It might be a good idea to have a friend or relative to help you. If you have several questions, you may want to write them down in order of their importance.

Make a list of what you want to talk about. Don't put off the things that are really on your mind until the end of your appointment—bring them up right away!

A list is helpful because it can be hard to remember these things once you are in the doctor's office, especially when the doctor has only a little time to spend with you.

The three main questions you should ask the doctor are

- What is my main health problem?
- What do I need to do about it?
- Why is it important for me to do these things?

Activity 10–2 Ask Me 3 Questions

Ask CHWs to share experiences they've had in talking to their doctors during visits or with people who didn't understand their doctors' instructions. Ask the CHW to think of ways they can help community members feel comfortable talking to their doctors and other health care team members, and then ask them to share their ideas with the rest of the class.

Show a helpful [video and talk about it with the CHWs](#).

Review the activity handout. Trainers may want to play the roles of doctors, nurses, or pharmacists and have CHWs play the role of patients who ask questions.

► Talking Points:

Bring a notebook.

It can be hard to remember everything your doctor tells you during your visit. But it's very important for your health that you follow your doctor's advice. To make sure you don't miss anything or forget what the doctor tells you, take a notepad with you to the visit.

Remember to take your eyeglasses to the doctor's visit. If you have a hearing aid, make sure that it is working well and wear it. Let the doctor and staff know if you have a hard time seeing or hearing. For example, you may want to say: "My hearing makes it hard to understand everything you're saying. It helps a lot when you speak slowly."

Ask someone to come with you.

Asking someone to come with you to your visit can be a big help, especially if this person lives with you or helps with your health care. You could ask your husband or wife, your sister, your son or daughter, or another close relative or friend.

Having another person with you is good for several reasons. First, this person can give you moral support. Second, if the person takes part in your health care (even if just to remind you to take your medicine), it is important that he or she understands your doctor's instructions. Third, an extra set of ears is useful because the person can later help you remember what the doctor said. Fourth, if you need help reading and filling out forms, this person may be able to help you with them.

If someone comes with you, let the doctor know right way that you have someone in the waiting room who should hear everything the doctor says to you.

Find an interpreter if you know you'll need one

If the doctor you selected or were referred to doesn't speak your language, consider bringing an interpreter with you. Sometimes community groups can help find an interpreter. Or you can call the doctor's office ahead of time to see if one can be at your doctor's visit. Sometimes doctors ask a staff member to help with interpretation. Even though some English-speaking doctors know basic medical terms in Spanish or other languages, you may feel more comfortable speaking in your own language, especially when it comes to sensitive subjects, such as sexuality or depression.

You can also ask a family member who speaks English to go with you. This person should be someone you trust with knowing about your health and any problems you may have. Finally, let the doctor, your interpreter, or the staff know if you do not understand what the doctor says your problem is or the instructions the doctor gives you. Don't let language barriers stop you from asking questions or talking about your concerns.

B. During a Visit with the Doctor

► Talking Points:

Now you are ready for your visit with the doctor. Your doctor has your medical records and you are ready to

- Ask questions.
- Write or record the answers.

First, your doctor will ask you questions and take notes. Your job is to answer these questions as fully and honestly as possible.

Give complete information.

Tell your doctor about aches and pains, and about other physical feelings you might have, such as tiredness, dizziness, or nausea. You should also tell your doctor about other types of feelings, such as feeling very sad for a long time or feeling very anxious or stressed out.

When your doctor asks you a question, try to give as much information as needed, but stick to the point. Say the things you think are most important first. You'll have a much easier time giving all of your information if you use the daily health diary that we talked about earlier, or if you write down your symptoms (the things you have been feeling) and when they happen. Be sure to bring your health diary or this record of your symptoms to the visit.

Don't be nervous about asking your doctor or nurse questions. They want you to let them know when and what kind of help you need.

Your doctor wants you to know

- All you can about your health problem.
- How to get better or to stay healthy.
- Why it is important for you to take care of your health.

Ask questions if you don't understand what the doctor tells you.

What if I've asked and I still don't understand what the doctor or nurse told me?

Let your doctor or nurse know if you still don't understand what you need to do.

You might say, "This is new to me. Will you please explain that to me one more time?"

Be honest.

It is very important to be honest with your doctor about your health problems. You should also be honest about your lifestyle and habits. Be honest about how much physical activity you get each day, how much you smoke (if you smoke), and what and how much you eat.

You may want to ask your doctor a question that's a little embarrassing or uncomfortable. Just remember, the doctor has probably heard it before. Doctors are used to talking about personal problems with their patients. What you tell the doctor is private and is not shared with anyone else without your permission.

Remember, asking questions and being worried about your symptoms (how and what you feel) is not a sign of weakness. Being honest about what you are feeling doesn't mean that you are complaining. The doctor needs to know how you feel.

Take home information.

Ask for written instructions if you need them.

Often doctors have written material or DVDs on a number of health issues that can help you. Ask your doctor if he or she has any that could help you and, if not, how you can get them.

If you can't read or understand the written information you get at the doctor's office, it's very important that you ask a family member, a friend, or someone else help you understand this information.

Also, ask if your doctor has washed his or her hands before starting to examine you. Hand washing can prevent the spread of infections. If you're uncomfortable asking this question directly, you might ask, "I've noticed that some doctors and nurses wash their hands or wear gloves before touching people. Why is that?"

C. After a Visit with the Doctor

► Talking Points:

It's important that you understand what your doctor has told you and that you're able to follow any advice or instructions he or she gave you.

After your visit, call the doctor's office and ask to talk to the nurse if any of these things happen

- You have problems following the doctor's advice.
- You have any questions.
- Your symptoms get worse.
- You have questions about taking your medicine.
- You have problems with the medicines themselves.
- You have had tests done and don't hear back from your doctor about the results.

Remember, quality matters, especially when it comes to your health.

You should write down the answers you get, or have someone else write them down.

D. Planning for an Emergency

► Talking Points:

As a partner in managing your health, you need to be ready in case of a medical emergency, such as a heart attack or stroke. This is especially important if you have a disease or condition that could cause a heart attack or stroke.

To be ready for a medical emergency, make a list of the following important telephone numbers and put it where you and others can find it easily

- Numbers for your doctor, an ambulance, and the fire department if the numbers are different from 9-1-1.
- The number of the 24-hour pharmacy closest to your home.
- The number of the power company in case your power goes out (if you use electrical equipment that is vital for your health).
- Numbers of friends or family members who will be there for you (and your children) in case of an emergency.

Nobody “plans” to have a heart attack or stroke. But just as people practice what to do in case of fire, you can prepare for a medical emergency—yours or someone else’s.

Keep in mind that the time to prepare is before a life-threatening emergency happens. Then if something should come up, you can act quickly and calmly, and can do the right things fast!

Activity 10–3 Emergency Information

Review the warnings signs of a heart attack and stroke listed on the activity handout with the CHWs. Then review each section of the handout to be filled in. Ask the CHWs what information should be included in each section and why it’s important to have this information available in a medical emergency.

Posttest:

Circle letters for ALL correct answers. A question may have more than one correct answer.

1. What should a person do to prepare for a doctor's visit?

- a. Bring a newspaper article about a problem he or she thinks is interesting.
- b. Make a list of medicines and other over-the-counter medicines, vitamins, supplements and other products the person is taking.
- c. Bring a notebook or paper and pen.

2. What should a person ask during a visit to the doctor?

- a. What is my main problem?
- b. What do I need to do?
- c. Why is this important for me to do?

3. What information should a person have ready in case of a medical emergency?

- a. Health Insurance information.
- b. Medicines he or she no longer takes.
- c. Family or friends to call.

Answers to questions:

1. b,c

2. a,b,c

3. a,c

Daily Health Diary

Activity 10–1

Keeping a health diary will help you and your doctor track your problems and your success. Write down what you did for your physical activity, how long you did it, and how you felt while doing it. Write down how you feel in general. Do you have pain, tiredness, nausea, numbness, or dizziness? You do not have to keep track every day, but it would help to keep track as often as you can. Write in your diary when you do not feel well.

If you keep track of your blood glucose, and what you eat in a log book, and how active you are, you can also write other notes about your health in that log book.

Or you may have a phone app that makes it easy to update your health numbers and notes. Take your health diary with you when you visit your doctor or nurse.

Date	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Weight							
Blood Pressure							
Blood Sugar (times and test results)							
Physical Activity							
What I ate today and how much							
How I feel today							

Good Questions for Your Good Health

Every time you talk with a doctor, nurse, or pharmacist, use these questions to help you understand your health.

1. What is my main problem?
2. What do I need to do?
3. Why is it important for me to do this?



Everyone wants help with health information.

If you find things confusing at times, you are not alone.

The Ask Me 3 questions will help you:

- ✓ **Take care of your health**
- ✓ **Prepare for medical tests**
- ✓ **Take your medicines the right way**

Source: National Patient Safety Foundation
<http://www.npsf.org/?page=askme3>

When to Ask Questions

You can ask questions when:

- You see your doctor, nurse or pharmacist.
- You prepare for a medical test or procedure.
- You get your medicine



Tips for Talking to Your Doctor

Check off the ones you will try:

- I will ask the 3 questions
- I will bring a friend or family member to help me at my doctor visit.
- I will write down my health concerns to tell my doctor.
- I will bring a list of all my medicines when I visit my doctor.
- I will ask my pharmacist for help when I have questions about my medicines.

Are you nervous to ask your doctor questions?

Don't be! You may be surprised to learn that your medical team wants you to let them know when you need help.

Your doctor wants to know:

- All you can about your health problem.
- How to get better or stay healthy.
- Why it is important for you to take care of your health.

Ask your doctor, nurse or pharmacist:

1. What is my main problem?
2. What do I need to do?
3. Why is it important for me to do this?



What if I Ask and Still Don't Understand?

- Let your doctor, nurse, or pharmacist know if you still don't understand what you need to do.
- You might say, "This is new to me. Will you please explain that to me one more time?"

The Ask Me 3 questions are designed to help you take better care of your health.

Emergency Information

Activity 10–3

Warning signs of heart attack:	Warning signs of stroke:
<ul style="list-style-type: none">• Chest discomfort (Uncomfortable pressure, squeezing, fullness, or pain in the center of the chest that lasts more than a few minutes, or goes away and comes back.)• Discomfort in other areas of the upper body (Can include pain or discomfort in one or both arms, or in the back, neck, jaw, or stomach.)• Shortness of breath (Often comes with or before chest discomfort.)• Other signs (May include breaking out in a cold sweat, nausea, or light-headedness.)	<ul style="list-style-type: none">• Sudden numbness or weakness of the face, arm, or leg, especially on one side of the body• Sudden confusion, or trouble speaking or understanding• Sudden trouble seeing in one or both eyes• Sudden trouble walking, dizziness, or loss of balance or coordination• Sudden severe headache with no known cause

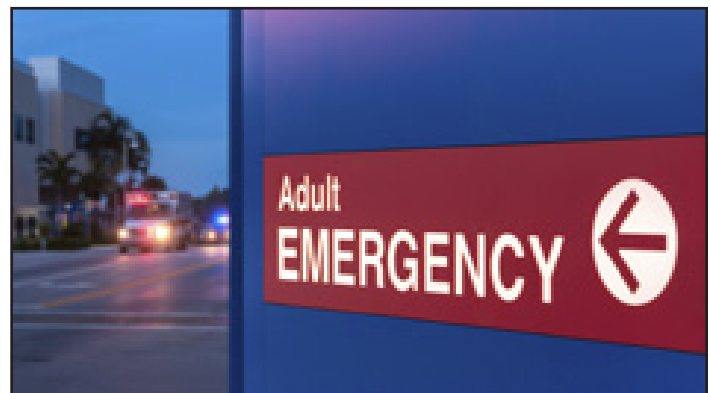
**If you have any of these warning signs,
Call 9-1-1.**

If you live in an area that does not have 9-1-1, then call

The ambulance: _____ The fire department: _____

The hospital in my area that has 24-hour emergency care for treating heart problems is*

The hospital in my area that has 24-hour emergency care for treating strokes is*



* Ask your doctor for this information.

Some emergency departments specialize in treating heart problems or strokes.

Family or friends to call that can help me and my family:

Name

Phone Number

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

My doctors' names and phone numbers:

Name

Phone Number

_____	_____
_____	_____
_____	_____

My medicines:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

My allergies (medicine or food)

_____	_____
_____	_____

My health insurance policy:

Company

Policy Number

Phone Number

_____	_____	_____
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Objectives

By the end of this session, community health workers will be able to

- Explain the reasons for taking medicine as the doctor prescribed.
- List the types of medicine patients should tell their doctor about taking.
- List ways patients can remember to take medicine.
- Discuss what patients should do if they have questions about their medicines.
- Discuss how community health workers can help people overcome barriers to taking their medicines.

Activities

- 11–1 It Is Important to Take Medicines as Your Doctor Advises
- 11–2 Overcoming Barriers to Taking Medicines
- 11–3 What Community Health Workers Can Do to Help Community Members Get Their Medicines and Take Them
- 11–4 How Do I Manage My Medicine?

Chapter Outline

- A. Will the Doctor Prescribe More Than One Medicine for Me?
- B. Will I Always Be on the Same Medicine?
- C. How Should I Take My Medicine?
- D. How Can I Best Prepare Myself to Have Enough Medicine on Hand during Trips and Holidays?
- E. What Should I Do if I Can't Afford the Medicine?
- F. Should I Tell the Doctor about Other Medicines I Am Taking or Other Health Problems I Have?
- G. Who Will Advise Me about My Medicines?

Pretest:

Circle letters for ALL correct answers. A question may have more than one correct answer.

1. Why is it important to take your medicines as your doctor advises?

- a. It can reduce the risk of heart disease, heart attack, or a stroke.
- b. It can help control blood pressure in people who have high blood pressure.
- c. It can help a person be a good role model for his or her family.
- d. It costs less money.

2. What are common barriers to taking medicine?

- a. People do not know what the medicine is supposed to do.
- b. People are taking so many medicines every day that they don't want to take any new ones.
- c. People are not thirsty enough.
- d. They don't feel well and think the medicine isn't helping.

3. What can CHWs do to help people get and take their medicines?

- a. They can help people organize their medicines.
- b. They can help them apply for free or affordable medicines.
- c. They can ask about their family history.
- d. They can go with people to see their pharmacist to get the answers to their questions about their medicine.

► Talking Points:

Taking medicine isn't always as simple as swallowing a pill. Medicine can only help people if they take it as prescribed. In this session we'll discuss what people need to know if they are taking medicine for heart disease, heart attack, or stroke, or to help prevent these conditions.

We'll talk about how you, as community health workers, can help people understand why they need to take their medicine, how to get it, and how to take it.

You'll learn how to encourage them to watch for problems with their medicines and to be active in solving these problems with their doctor or medical team.

A. Will the Doctor Prescribe More Than One Medicine for Me?

► Talking Points:

Your doctor may give you one or more medicines, depending upon your symptoms (what and how you feel) and health problems.

Sometimes your doctor may prescribe one medicine at first and then add others later, or your doctor may give you two or more medicines at first.

Whatever medicine your doctor prescribes, taking your medicine exactly as the doctor advises is very important in preventing and treating heart disease and stroke.

B. Will I Always Be on the Same Medicine?

► Talking Points:

Often the doctor has to make some minor changes in your medicine to be sure you are getting the amount that works best for you. After starting a medicine, you will get lab tests regularly to make sure the medicine is working. If it's not working as well as the doctor would like, you may get a higher or lower dose or a different medicine. That is why it is very important to see your doctor or other members of your care team regularly!

If your doctor prescribes more than one medicine for you, he or she will look for the medicines that work best for you.

C. How Should I Take My Medicine?

► Talking Points:

The medicines work best when taken as advised by the doctor.

Skipping a dose or stopping your medicines can be harmful.

Your health may get worse if you stop your medicines. Do not stop your medicines unless the doctor tells you to stop, even if you are feeling better. Your doctor will tell you when to stop taking a medicine.

Do not take more of the medicine than your doctor tells you to take. If you do, it may harm you. Your doctor will tell you when to take more of any medicine. If you are not feeling better, or are feeling worse, be sure to tell your doctor or nurse.

D. How Can I Best Prepare Myself to Have Enough Medicine on Hand during Trips and Holidays?

► Talking Points:

Keep prescriptions for your medicine filled at all times. Refill your prescription several days before you run out.

You should have enough medicine for a few extra days so that you won't run out if the weather is bad and you can't get to the pharmacy.

If you are going on a trip, be sure to fill your prescription ahead of time. Anytime you will be away from home, be sure to take your medicine with you.

Be sure you know when your pharmacy will be closed for holidays.

E. What Should I Do If I Can't Afford the Medicine?

► Talking Points:

If the cost of your medicine is a problem for you, tell your doctor. The doctor may be able to prescribe other medicines for you that cost less. Some medicines have a generic form that costs less than the brand name form.

You may also be able to lower your cost by comparing prices at different pharmacies. If you need help paying for medicines, ask to see a social worker while at the hospital or health clinic. The social worker will know about programs that can help you pay for your medicine, if you qualify. Also, a CHW will be able to help you.

Also, a staff member or CHW in the doctor's office or health clinic may be able to help you fill out forms for getting low-cost or free medicine from drug companies, or through the Medicare prescription drug card program, or through state programs, or through a clinic that offers health care at no cost or a low cost.

F. Should I Tell the Doctor about Other Medicines I Am Taking or Other Health Problems I Have?

► Talking Points:

Yes! It is very important to tell your doctor about other medicines you are taking. You should include all pills and remedies that you take, including over-the-counter medicines that you buy without a doctor's prescription. Examples are aspirin, cold medicine, allergy medicine, and laxatives. Taking over-the-counter medicine can change the way your prescription medicines work.

Also tell your doctor about any allergies or other problems you have to medicines, foods, or chemicals. The doctor needs this information so that he or she can prescribe the right medicine for you.

G. Who Will Advise Me about My Medicines?

► Talking Points:

The pharmacist (the person at the pharmacy who is trained to help you with your medicines), your doctor, or a nurse will answer your questions about medicines. Ask questions about every new prescription medicine.

If you have a question about your medicine, the easiest way to get an answer may be to ask the pharmacist who gives you your medicine. The medicine will come with information about possible side effects, which are problems that may come up when you take it. For example, some diabetes medicines can cause an upset stomach, and some blood pressure medicines can cause leg cramps or cold hands and feet.

Tell your doctor if you think a medicine you are taking is causing a side effect.

Do not stop taking the medicine unless your doctor tells you to stop. Talk to your doctor first!

The medicine will also come with warnings not to take it if you have certain conditions, such as allergies to certain medicines or chemicals, or if you are pregnant. The medicine may also come with directions for taking it, such as taking it at a certain time or staying away from certain foods or another medicine.

Ask your doctor or your pharmacist to let you know if you need lab tests from time to time to check how your medicines are working.

Activity 11-1 It Is Important to Take Medicines as Your Doctor Advises

Ask the CHWs: “If you are at risk for, or have had, heart disease, a heart attack, or a stroke, why is it important to take the medicines that the doctor prescribes for you?” Ask them if they can think of reasons why it is important to take medicines the way the doctor advises.

If the following reasons are not mentioned, talk about them

- Reduces the risk of developing heart disease, the risk of disability from heart disease (such as weakness or not being able to carry out normal activities), and the risk of dying from heart disease.
- Reduces the risk of stroke, the risk of disability from a stroke (such as not being able to speak or think clearly, or not being able to move parts of the body or walk), and the risk of dying from a stroke.
- Reduces the risk of having a second heart attack or stroke and the disability that might follow.
- Helps control blood pressure in people who have high blood pressure.
- Helps control high levels of fats and cholesterol in the blood, which reduces the risk of heart attack or stroke.
- Controls blood sugar and lowers the risk of developing complications (problems) of diabetes, such as kidney disease, blindness, or problems with the nerves, feet, or gums.
- Reduces feelings of depression and anxiety.
- Reduces the risk of death from heart failure.
- Improves the way a person feels.
- Allows a person to be healthy enough to work and to have a better quality life.
- Helps a person be a good role model for his or her family.

Activity 11-2 Overcoming Barriers to Taking Medicines

Ask the CHWs: “What are some reasons why people do not take their medicines as advised by their doctors, and how can community health workers help them overcome these roadblocks?” Ask them for suggestions about what they would do to help people get started with their medicines and to keep taking them.

If the following reasons are not mentioned, talk about them.

- People do not know what the medicine is supposed to do.
- They are not sure of how to take their medicines.
- They can not afford their medicines, so they do not get them.
- To save money, they only take their medicines every other day or they cut their pills in half.
- They are taking so many other medicines that they don't want to take any new ones.
- They don't feel well and think the medicine isn't helping.
- They feel that the medicine is giving them a side effect they don't like.
- They forget to take their medicines.
- They think they can do without their medicines.
- They don't have anyone to help or support them in taking their medicines.

Activity 11–3 How Do I Manage My Medicines.

The American Heart Association handout, How Do I Manage My Medicines, gives a good overview of what most people need to know about taking medicines. Go through the handout with the CHWs and answer any questions they may have. Ask them how they could use this handout with community members. Ask them to share other ideas they have for helping people to remember to take their medicines. For example, there are cell phone apps that ring and remind people when to take their medicines.

http://www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/downloadable/ucm_300450.pdf

Activity 11–4 What Community Health Workers Can Do to Help Community Members Get Their Medicines and Take Them

Ask the CHWs to talk about how they can help people overcome roadblocks to getting and taking medicine.

- Who are the best people to advise patients about their medicines?
- Why is it important for people to take their medicines as their doctor advises?
- What are common barriers, in the community, to taking medicine and how can you help people overcome the barriers?
- What can CHWs do to help community members get their medicines and take them?

Review the activity handout with the CHWs, and have them add their ideas to the handout.

Posttest:

Circle letters for ALL correct answers. A question may have more than one correct answer.

1. Why is it important to take your medicines as your doctor advises?

- a. It can reduce the risk of heart disease, heart attack, or a stroke.
- b. It can help control blood pressure in people who have high blood pressure.
- c. It can help a person be a good role model for his or her family.
- d. It costs less money.

2. What are common barriers to taking medicine?

- a. People do not know what the medicine is supposed to do.
- b. People are taking so many medicines every day that they don't want to take any new ones.
- c. People are not thirsty enough.
- d. They don't feel well and think the medicine isn't helping.

3. What can CHWs do to help people get and take their medicines?

- a. They can help people organize their medicines.
- b. They can help them apply for free or affordable medicines.
- c. They can ask about their family history.
- d. They can go with people to see their pharmacist to get the answers to their questions about their medicine.

Answers to questions:

1. a,b,c

2. a,b,d

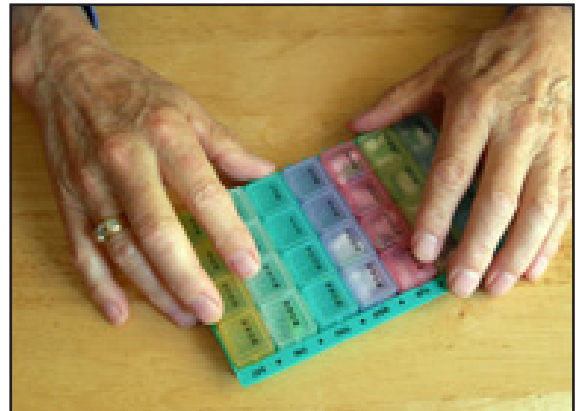
3. a,b,d

What Community Health Workers Can Do to Help Community Members Get Their Medicines and Take Them (with Program Support)

Activity 11–3

Ways to Support People in Their Health Care Needs:

- Help community members make a list of their medicines.
- Help community members understand the instructions on the pill bottles. They should take the right amount of medicine at the same time every day.
- Go with people to see their pharmacist to get the answers to their questions about their medicine.
- Encourage people to take their medicine as advised by their doctor.
- Encourage people to call or see their doctors or nurses, or pharmacists if they have any questions or problems with their medicines.
- Encourage people to continue to take their medicines even if they are feeling better. When people stop taking their medicines suddenly, their condition can worsen.
- Help people apply for free or affordable medicines.
- CHWs can be role models by taking their own medicines as advised by their doctor.
- Help people organize their medicines. One way is to put the pills into a pillbox that is clearly marked with the days of the week and the times of day (such as morning, noon, afternoon, and night). People will build a daily habit of taking their medicine if they use a pillbox, put it in a place they will remember, and take it with them when they leave their home.
- Encourage family members and friends to support and encourage persons who need to take medicine and to remind them to take it.



Ways to Help People Make Better Lifestyle Choices:

- Encourage community members to eat more healthily, increase their physical activity, quit smoking, and lose weight. When they do these things, the doctor may be able to reduce some of their medicines.

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Objectives

By the end of this session, community health workers will be able to

- Discuss why weight control is important to good health.
- Describe how to help people lose weight.
- Assist others with making healthy food choices.
- Read a food label and find calorie, fat, saturated fat, trans fat, cholesterol, sodium, carbohydrate, fiber, sugar, and protein content.
- Describe the DASH Eating Plan.

Activities:

- 12–1: Protect Your Heart. Watch Your Weight.
- 12–2: A. The Energy Balance
B. Tips to Help You Control Weight
- 12–3: Average Daily Calories for Men and Women
- 12–4: Be Good to Your Heart. Know Your Cholesterol Numbers and Take Action!
- 12–5: How to Read Food Labels
- 12–6: The DASH Eating Plan
- 12–7: Role-Playing: Helping Mrs. Jones and Her Family
- 12–8: What Community Health Workers Can Do to Help People Make Healthier Food Choices

Chapter Outline

- A. How Do You Know if You Are Overweight?
- B. What Causes People to Be Overweight or Obese?
- C. Why Is It Unhealthy to Be Overweight?
- D. How Can I Lose Weight?
- E. What Should I Eat?
- F. What Foods Should I Limit?
- G. Reading Food Labels
- H. The DASH Eating Plan
- I. How Much Is a Serving?

Pretest Questions

Circle the letters for ALL the correct answers in the questions. A question may have more than one answer.

1. Which of the following will help you lower your LDL (bad) cholesterol?

- a. Butter.
- b. Avocado.
- c. Olive oil.
- d. Beans.
- e. Fatty meats.

2. The DASH Eating Plan advises you to eat or drink which of the following?

- a. White, refined breads.
- b. Fruits and vegetables.
- c. Sweet tea.
- d. Foods low in sodium.
- e. Water

3. Useful information on a Nutrition Food label includes

- a. Amount per Serving.
- b. Calories per serving size.
- c. Amounts of saturated fat, cholesterol, and trans fat.
- d. Cost per serving.

► Talking Points:

In this session and the next two sessions, we'll talk about three things that are your best protection against heart disease, heart attack, and stroke when you make them a part of your lifestyle (way of life). These things are

- Healthy eating.
- Being physically active.
- Living tobacco free.

In this session, we'll discuss healthy eating and how important it is for people to keep their weight within a range that is right for their height. To keep their weight under control, people need a balance between the amount of food they eat and the amount of physical activity they get. In this session and the next one on physical activity, we'll talk about tips for controlling weight.

Being overweight puts a person at greater risk for diabetes and high blood pressure, which are major risk factors for heart disease and stroke.

Weight control has become a major problem in the United States. More than 2 in 3 adults are overweight or obese. Being overweight is not just a problem for adults. More children and teenagers are overweight than ever before.

The good news is even a small weight loss (between 5 and 10 percent of your current weight) will help lower your risk of developing those diseases.

A. How Do You Know if You Are Overweight?

► Talking Points:

Many of us have different ideas about who is overweight and who is not.

We've heard a lot about obesity. Is being overweight and being obese the same thing?

Many people use the words obese or obesity to describe being overweight, but doctors say the two terms to mean different things. Whether you are at a normal weight, overweight, or obese depends on how much body fat you have.

One way of measuring body fat is by body mass index, or BMI. This measurement can be used by both men and women, but it does have some limits. It may overestimate body fat in people, who have a muscular build, and it may underestimate fat in older people and others who have lost muscle mass.

Your BMI is your weight in relation to your height. It can tell you if you are at a healthy weight, overweight, or obese. Using a BMI chart is probably the best way to find your BMI. **A person with a BMI of 25 to 29 is overweight, and a person with a BMI of 30 or higher is obese.**

Activity 12–1: Protect Your Heart. Watch Your Weight. Review the handout with the CHWs. Explain that the numbers in the far left-hand column are a person’s height in feet and inches and the numbers in the columns just to the right of the height column are a person’s weight in pounds. The numbers in the top of that column in the chart are the BMI for various heights and weights.

Ask the CHWs to find their own BMI. First they should find their height in inches and feet in the left-hand column. Then they should follow that row to the right until they find the weight closest to their own. Following this column to the top of the page will give them their BMI number.

Adult BMI charts online. Go to

http://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmi_tbl.htm

You can download a BMI App from NIH go to

http://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmicalc.htm

Child and Teen BMI calculator online. Go to

<http://apps.nccd.cdc.gov/dnpabmi/Calculator.aspx>

A high waist measure increases a persons’ risk for heart disease. Have the CHWs measure their waists by putting a tape measure around the waist just above the hip bone. Be sure the tape is snug, but not too tight on the stomach. Ask them to relax, exhale, and then measure their waists.

Some people may be sensitive about measuring their waists with a take measure. To make this activity friendlier, you can use curling ribbon. Cut 35 inches (88cm) for women and 40 inches (102cm) for men, and give the ribbons to the CHWs. Tell them how long the ribbon measures. If the ribbon does not go all the way around the CHWs waists, their waist measures are high.

► Talking Points:

Remember, a normal BMI is 19 to 24. Overweight is 25 to 29. Obese is 30 and higher.

The risk for heart disease and stroke increases with a waist measurement of more than 40 inches in men and more than 35 inches in women.

A person with a BMI of 25 to 29 and a large waist size is at high risk.

A person with a BMI of 30 to 39 and a large waist is at very high risk.

A person with a BMI of 40 or more and a large waist is at extremely high risk. All of these people need to lose weight.

Another important way to tell your risk of overweight is by placing a measuring tape snugly around your waist. Doing this will show you how much belly fat you have.

B. What Causes People to Be Overweight or Obese?

► Talking Points:

Obesity is mainly caused by overeating and not getting enough physical activity. But other things can also put you at risk for being overweight.

Family history. Overweight and obesity tend to run in families. Your chances of being overweight are greater if one or both of your parents are overweight or obese. This could be partly due to genes. But, children share the habits of their parents. A child who has overweight parents who eat high-calorie foods and are inactive will likely become overweight too. But, if the family adopts healthy food and physical activity habits, the child is less likely to become overweight or obese.

Lifestyle. You are not “doomed” to be overweight because other family members are overweight. You can’t choose your family, but you can choose to change your eating habits and to increase your physical activity, and that will make a big difference. People in the United States tend to eat a lot of high-fat and sugary foods. We often buy foods that are quick and easy to eat instead of eating homemade foods that are healthier. People who are inactive are more likely to gain weight because they don’t burn the calories that they take in from food and drinks.

Mental and emotional factors. Many people eat more food than they need because they are stressed, bored, sad, or angry.

Health conditions and medicines. Some problems with the way the body makes and handles hormones can lead to gaining weight. Also, taking some medicines such as steroids, antidepressants, and seizure medicines may cause you to gain weight.

Environment (Where You Live)

Our environment doesn't support healthy lifestyle habits; in fact, it encourages obesity. Some reasons include

- **Lack of neighborhood sidewalks and safe places to play and exercise.** Not having area parks, trails, sidewalks, and affordable gyms makes it hard for people to be physically active.
- **Work schedules.** People often say that they don't have time to be physically active because of long work hours and time spent commuting.
- **Oversized food portions.** Americans are exposed to huge food portions in restaurants, fast food places, gas stations, movie theaters, supermarkets, and even at home. Some of these large meals and snacks can feed two or more people. Over time, this will cause weight gain if it isn't balanced with physical activity.
- **Lack of access to healthy foods.** Some people don't live in neighborhoods that have supermarkets that sell healthy foods, such as fresh fruits and vegetables. Or, for some people, these healthy foods are too costly.
- **Food advertising.** Americans are surrounded by ads from food companies. Often children are the targets of advertising for high-calorie, high-fat snacks and sugary drinks. The goal of these ads is to sway people to buy these high-calorie foods, and often they do.

Age

As you get older, you tend to lose muscle, especially if you're less active. Muscle loss can slow down the rate at which your body burns calories. If you don't reduce your calorie intake as you get older, you may gain weight.

Midlife weight gain in women is mainly due to aging and lifestyle, but menopause also plays a role. Many women gain about 5 pounds during menopause and have more fat around the waist than they did before.

Pregnancy

During pregnancy, women gain weight to support their babies' growth and development. After giving birth, some women find it hard to lose the weight. This may lead to overweight or obesity, especially after a few pregnancies.

Lack of Sleep

Lack of sleep increases the risk of obesity. Sleep helps maintain a healthy balance of the hormones that make you feel hungry (ghrelin) or full (leptin). When you don't get enough sleep, your level of ghrelin goes up and your level of leptin goes down. This makes you feel hungrier than when you're well-rested.

People who sleep fewer hours also seem to prefer eating foods that are higher in calories and carbohydrates, which can lead to overeating, weight gain, and overweight or obesity.

Sleep also affects how your body reacts to insulin, the hormone that controls your blood glucose (sugar) level. Lack of sleep results in a higher than normal blood sugar level, which may increase your risk for diabetes.

C. Why Is It Unhealthy to Be Overweight?

► Talking Points:

Many serious health problems and diseases are related to obesity. Some examples are

- Type 2 diabetes.
- High blood pressure.
- Stroke.
- Coronary Heart Disease.
- Heart failure.
- Abnormal blood cholesterol levels.

Overweight and Obesity-Related Health Problems in Children and Teens

Overweight and obesity also increase the health risks for children and teens. Type 2 diabetes once was rare in American children, but an increasing number of children are developing the disease.

Also, overweight children are more likely to become overweight or obese as adults, with the same disease risks.

Obesity is linked to several other types of diseases and other health problems

- Cancer.
- Gallbladder disease and gallstones.
- Liver disease.
- Osteoarthritis (a type of arthritis that affects the joints).
- Gout (another disease affecting the joints).
- Breathing problems.
- Reproductive problems in women.

But the way a person feels about herself or himself may be the most painful part of being obese. In our society, overweight people are often seen as lazy, unattractive, and undisciplined—even though this is not true.

Obese people often face prejudice or unfair treatment in the workplace, at school, and in social situations. Often these people feel rejected, shamed, or depressed.

But people can do something about their weight.

Many people are not sure how much weight they should lose. A loss of only 5 to 10 percent of body weight may improve many of the health problems linked to overweight, such as high blood pressure and diabetes.

So, if you weigh 200 pounds, losing 10 to 20 pounds can improve your health.

Even a small weight loss can make a difference. If you are trying to lose weight, do it slowly and steadily. Generally, it is safe to lose 1/2 to 1 pound a week until you reach your goal.

Avoid crash weight-loss diets that strictly limit calories or the variety of foods you can eat. Extreme ways of trying to lose weight can be dangerous to your health and are not likely to bring lasting results.

D. How Can I Lose Weight?

► Talking Points:

One of the best ways to lose weight is to burn more calories than you take in.

As we've already learned, food provides the energy or fuel that the body needs to function. A calorie is a way to measure the energy a food item provides for the body. The more active a person is the more food the person's body needs.

It's easy to give your body more food than it needs. When you do that, either the body stores the extra fuel in its fat cells, which become bigger to make room for the extra fuel, or it makes more fat cells.

To keep from becoming overweight, we need to balance the amount of food we eat with the amount of energy we use. The amount of energy we use is based largely on how physically active we are. This balance is known as the Energy Balance.

Energy balance means that your energy IN equals your energy OUT.

Energy IN is the amount of energy or calories you get from food and drinks. Energy OUT is the amount of energy your body uses for things like breathing, digesting, and being physically active.

To maintain a healthy weight, your energy IN and OUT don't have to balance exactly every day. It's the balance over time that helps you maintain a healthy weight.

- The same amount of energy IN and energy OUT over time = weight stays the same
- More energy IN than energy OUT over time = weight gain
- More energy OUT than energy IN over time = weight loss

Overweight and obesity happen over time when you take in more calories than you use.

You can find out more about losing weight at http://www.cdc.gov/healthyweight/losing_weight/index.html

Activity 12–2: A. The Energy Balance B. Tips to Help You

Lose Weight Review the handout with the CHWs. Ask questions to ensure they understand that to maintain weight, physical activity must be balanced with the amount of calories taken in. To lose weight you need to take in fewer calories and increase your physical activity. Invite the CHWs to share ideas and tips about losing weight and eating out.

Also, show the video “Finding the Balance.” It is 4 minutes long and is about “energy” balance and has personal stories of how individuals have made changes in their lives to achieve this balance. You can watch or download the video at

<http://www.cdc.gov/healthyweight/index.html>

Activity 12–3: Average Daily Calories for Men and Women Review the handout with the CHWs. After you read and talk about the chart and about Grandma Brown, Aunt Mary, and Cousin Joe, ask the CHWs to share the number of daily calories they think they should be eating. Remind them to base it on their activity levels.

If any CHWs are trying to lose weight, they should aim for a lower caloric level. Ask them to talk about specific ways they could reduce their daily caloric intake (for example, eat smaller portions, eat lower fat and high fiber food, and be more physically active).

► Talking Points:

In the next session we'll talk more about physical activity and ways to increase your physical activity during the day. Physical activity is important because, together with reducing calories, it helps people lose weight, decrease belly fat, increase fitness, and keep a healthy weight.

E. What Should I Eat?**► Talking Points:**

Even if you don't need to lose weight, a healthy diet is still very important for reducing the risk for heart disease and stroke.

What is healthy eating? What should you eat if you are trying to lose weight? Healthy eating, which includes controlling how much you eat, can help you lose weight.

According to the Dietary Guidelines for Americans, a healthy diet

- Favors fruits, vegetables, whole grains, and fat-free or low-fat milk and milk products.
- Includes lean meats, poultry, fish, beans, eggs, and nuts.
- Is low in saturated fats, trans fats, cholesterol, salt (sodium), and added sugars.

You should eat a variety of foods every day because different foods have different nutrients, such as vitamins and minerals that your body needs.

No single food can supply all nutrients in the amounts you need. For example, oranges provide vitamin C but no vitamin B12; chicken provides B vitamins but no vitamin C.

Discussion: Eat More, Weigh Less It is possible to eat very well and still control your weight. This handout has some good ideas on how to manage your weight without being hungry.

http://www.cdc.gov/nccdphp/dnpa/nutrition/pdf/Energy_Density.pdf

Review the handout and then ask the CHWs to share some ideas about picking or preparing local foods in ways that would filling, healthy, and appealing to community members.

Some examples might include

- Frozen and canned fruits and vegetables are good choices when fresh fruits and vegetables are not available or cost too much. But people should pick items without added sugar, syrup, fat, or sodium.
- Prepare fruits, vegetables, and other foods without extra sugar or fat (like cream sauce and butter).
- Eat a green salad or broth-based soup at the beginning of the meal. This may help people feel fuller and help them eat less food and calories.
- Choose water or other non-sugary drinks (like tea) to drink.
- Choose meats and cheeses that are lower in fat.
- Have green beans and rice with one piece of chicken instead of three pieces of chicken alone.
- Bake meat, fish, and chicken instead of frying it.
- Instead of cakes, pastries, and ice-cream, have fruit.

► Talking Points:

It's important to eat a variety of foods, and it's especially important to eat several servings of fruits and vegetables each day. One serving is 1/2 cup. Go to www.fruitsandveggiesmatter.gov to find the best number of servings for you.

A diet that includes fresh fruits and vegetables may reduce the risk of heart disease, stroke, and other diseases. Fruits and vegetables provide the vitamins, minerals, and fiber that are important for good health. Most fruits and vegetables are naturally low in fat and calories and are filling.

To keep yourself from becoming thirsty, just drink water. You also get water from juice, milk, fruits, vegetables and, other foods.

Water is a great choice! It's calorie-free, it doesn't cost much (when it comes from a faucet or fountain), and you can always find it. Take water breaks instead of coffee, tea, soda, or other sweet drink breaks.

F. What Foods Should I Limit?

► Talking Points:

Now we know that it's important to eat a variety of foods and to eat several servings of fruits and vegetables each day, but there is another side to healthy eating.

It's also important to limit some types of food—foods that are high in—

- Sodium.
- Saturated fats.
- Trans fats.
- Cholesterol.
- Sugar.

These foods should only be eaten once in a while. They play a part in heart disease, heart attack, stroke, and other diseases such as cancer

Sodium

Ask:

What is sodium?

► Talking Points:

Sodium makes up a part of salt. It is used in mixtures to flavor and preserve many foods we buy in the grocery store.

Sodium is important because it brings the right amount of water to our cells. But when we eat foods with too much sodium, we retain too much water in our blood.

The kidneys usually flush extra fluid from the body, but if the kidneys can't handle all the fluid, it stays in the blood. A higher volume (amount) of blood often makes the pressure in the blood vessels rise.

As we've learned, high blood pressure is a risk factor for heart disease and stroke—and for kidney disease. Eating foods or drinking liquids that are too salty, or cooking with too much salt, will increase blood pressure.

Americans eat way too many salty foods. Daily intake of sodium for people without high blood pressure should not be more than 2,300 milligrams (mg), or about 1 teaspoon (use a teaspoon from a set of measuring spoons).

Daily sodium in the diet should not be more than 1,500 mg, or about $\frac{3}{4}$ teaspoon of sodium, for those age 51 years or older, African Americans of any age, or people who already have high blood pressure, diabetes, or kidney disease.

Reduce the sodium in your diet to control your blood pressure.

Choose fresh, plain, or frozen foods, without added salt. When buying canned or packaged foods, choose “low sodium” items that have no more than 140 milligrams of sodium per serving.

Discussion: Sodium in Foods Tell the CHWs that much of the added sodium in people’s diets comes from packaged and canned, and processed foods. Examples are

- Packaged meats such as, bologna, sausage, ham, hot dogs, and bacon.
- Canned soups and vegetables.
- Cheese.
- Dill pickles.
- Tomato juice.
- Soy sauce.
- Frozen dinners.
- Pizza.
- Chips
- Salted crackers and nuts.
- Bread.

Ask the CHWs to talk about easy ways people in their communities could reduce the amount of sodium in their diets.

Better choices can include

- Eat fresh or frozen fruits and vegetables.
- Eat fish and lean meats, such as chicken and turkey.
- Read the Nutrition Food label to choose foods lower in sodium.
- Season food with herbs and spices instead of salt.
- Eat less canned and packaged (processed) foods.

Note to trainer: You may want to review resources in Chapter 7 with the CHWs.

Fats

► Talking Points:

You've been hearing for years that too much fat in your diet is not good for you. But the truth is that some fats are good for you and others are not.

There are two main types of fat:

- Saturated fats.
- Unsaturated fats.

Saturated fats are unhealthy fats that can increase your risk for heart disease, heart attack, and stroke.

They are found in red meat, lard, animal shortening, chocolate, and dairy products, such as whole milk, butter, cheese, and ice cream.

Saturated fat is also found in most margarines, vegetable shortening, lard, fatback, stick margarine, coconut oil, palm oil, and palm kernel oil.

Saturated vegetable oils are *trans fats*, such as coconut and palm oils, and are used most often at fast-food restaurants to deep fry chicken, French fries, and onion rings.

They are also used in making most potato chips as well as the cakes, muffins, cookies, pastries, crackers, flour tortillas, fry bread, and donuts you buy at the store.

Limit or do not eat foods made with trans fats (partially hydrogenated vegetable oils), which are found in many packaged foods, such as cookies, crackers, pies, cakes, and cakes mixes.

Unsaturated fats are healthier fats. Some unsaturated fats may even lower your risk for heart disease, heart attack, and stroke. Unsaturated fats are found in olives, avocados, most nuts (peanuts, almonds, cashews, walnuts, and pistachios), fish, and oils such as olive, peanut, canola, corn, soybean, sunflower, and safflower.

Saturated fats usually become solid at room temperature, while unsaturated fats are usually liquid at room temperature.

Unsaturated fats help lower your bad (LDL) cholesterol levels and increase your good (HDL) cholesterol levels when used in place of saturated fats in your diet.

Try to use unsaturated fats instead of saturated whenever you can. For example try "light" or "no-fat" salad dressings and mayonnaise.

Foods that have saturated fats and trans fats are harmful if you eat them often.

Even with unsaturated fats, you can have too much of a good thing. All fats are high in calories. You should limit your fat intake to no more than 30 percent of your daily calories.

Cholesterol

Ask:

What kinds of foods have cholesterol?

► Talking Points:

Cholesterol is a fat-like substance found in all animal foods—meat, chicken and turkey, fish, milk and milk products, and eggs.

In milk products, cholesterol is mostly in the fat, so lower-fat products contain less cholesterol.

Egg yolks and organ meats, such as liver, are high in cholesterol. Plant foods do not contain cholesterol.

Low-fat meats, such as lean cuts of red meat, chicken and turkey (without the skin) and fish are good sources of protein and are better choices than high-fat meats, such as bacon, sausage, hot dogs, hamburgers, and lunchmeats. You should not eat high-fat meats more than once a week.

Reducing saturated fats, trans fats, and cholesterol and replacing them, whenever you can, with unsaturated fats will have the greatest effect on your blood cholesterol levels.

Discussion: Be Good to Your Heart. Know Your Cholesterol Numbers and Take Action!

Note to trainer: You may want to review resources in Chapter 8 with the CHWs. This is a good chance to review cholesterol goals.

Invite the CHWs to share other ways they can reduce fats in their family meals and how people can make better low-fat choices when eating out.

Sugar

► Talking Points:

Most people take in much more sugar than is healthy. Some sugar is found naturally in many foods, such as milk and fruits. But this type of sugar is not the problem. It is the sugar that's added to foods and drinks that is unhealthy.

Most added sugars in the typical American diet come from soft drinks, candy, jams, jellies, syrups, and table sugar used in coffee and put on cereal.

But sugar is also added to many other foods. Examples are ice cream, sweetened yogurt, chocolate milk, yogurt with sweetened fruit, canned or frozen fruit with heavy syrup, sweet tea, ketchup, and sweetened bakery products, such as cakes, granola bars, and cookies.

For healthy eating, go easy on sugars that people add to foods at the table—sugar, honey, and jelly.

Choose less high calorie foods like fruits, over those that have lots of sugar, such as candy, sweet desserts, and sugary drinks.

Avoid too much snacking. Instead drink water. For something sweet, but without added sugar, eat a piece of fruit or a sugar-free dessert. Choosing lower calorie alternatives over high-calorie snacks will help control body weight.

Choose Whole Grain

► Talking Points:

Whole grains are a good source of fiber and nutrients. Whole grains refer to grains that have all of the parts of the grain seed (sometimes called the kernel).

Choose whole grain foods for most grain servings to get added nutrients, such as minerals and fiber.

You can find out if the food you are eating is made of whole grains by looking at the ingredients list of the food label. The whole grain should be the first ingredient listed. The following are some examples of how whole grains could be listed

- brown rice
- buckwheat
- bulgur (cracked wheat)
- millet
- wild rice
- popcorn (try air-popping your popcorn without adding salt and fat.)
- quinoa
- whole-grain barley
- whole-grain corn
- whole oats/oatmeal
- whole rye
- whole wheat

G. Reading Food Labels

► Talking Points:

The Nutrition Food label found on packaged or canned food is one of the best tools you have for choosing foods for a healthy diet. By reading the food label, you can choose foods lower in fat, cholesterol, sugar, and sodium, and high in fiber.

Details about reading a Nutrition Food label can be seen or downloaded at <http://www.fda.gov/food/ingredientspackaginglabeling/labelingnutrition/ucm274593.htm>

Activity 12–4: How to Read Food Labels Ask the CHWs to bring in samples of their favorite packaged or canned foods so they can practice reading the Nutrition Food labels. Review the labels with the CHWs, explaining each part of the label. Point out the serving sizes and calories and the amounts of sodium, fats, and sugar.

Also, review other resources listed in the handout.

H. The DASH Eating Plan

► Talking Points:

The DASH plan is good to follow to make sure that you're eating several servings of fruits and vegetables a day and limiting sodium, fat, and sugar. DASH stands for Dietary Approaches to Stop Hypertension. The DASH diet is recommended by the American Heart Association and the National Heart, Lung, and Blood Institute and has been proven to lower blood pressure and LDL blood cholesterol levels. It is a good plan for anyone who wants to eat healthier.

The DASH eating plan used along with other lifestyle changes can help control blood pressure, lower LDL (“bad”) cholesterol, and reduce your risk for getting heart disease. If your blood pressure and LDL cholesterol is not too high, you may be able to control them entirely by changing your eating habits, losing weight if you are overweight, getting regular physical activity and cutting down on alcohol.

The DASH eating plan includes whole grain products, fish, poultry, nuts, and low-fat dairy foods. It includes reduced amounts of red meat, sweets, and sugary drinks. It is rich in magnesium, potassium, and calcium, as well as protein and fiber.

Activity 12–5: The DASH Eating Plan Review the handout with the CHWs. Talk about the plan. Ask if they have questions about the plan. Ask CHWs how they could adopt the plan. Ask the CHWs how they would talk about the DASH Eating Plan with community members. Ask for volunteers to role play and community members and CHWs who explain the eating plan.

I. How Much Is a Serving?

It's important to eat a variety of foods, but it's also important to not eat too much.

► Talking Points:

Take a good look at your dinner plate. Vegetables, fruit, and whole grains should take up the largest part of your plate. If they do not, replace some of the meat, cheese, white pasta, or rice with your favorite vegetable. This will lower the total calories in your meal without reducing the amount of food you eat. BUT remember to use a normal- or small-size plate—not a platter.

Discussion: Serving Sizes Ask CHWs what they think is the average serving sizes of food they have been eating. What could help people eat smaller portions of food?

Use your hands to show portion control—a closed fist is an estimated serving of starches, an open palm of the hand is a serving of meat, a cupped hand is a serving of vegetables, and the end of the thumb is a serving of cheese. For some of us, our thumbprint is about the size of a teaspoon; for others, our thumbprint is about the size of a tablespoon. Try it and see! For some of us, our fist is about the size of a ½ cup but for others, it is 1 cup. It doesn't need to be exact. It will help people estimate how much they are eating.

Also, share

The serving size example card at

<http://hp2010.nhlbihin.net/portion/servingcard7.pdf>

Three simple Steps to Eating More Fruits and Vegetables at http://www.fruitsandveggiesmorematters.org/wp-content/uploads/UserFiles/File/pdf/resources/cdc/ThreeSimpleSteps_Brochure.pdf

You may want to review My Plate information and videos at <http://www.choosemyplate.gov/>

Activity 12–6: Role-Playing: Helping Mrs. Jones and her family. Let's practice what we have learned. Mrs. Jones and her family are in trouble and need help from Laura, the CHW.

Ask the CHWs to take turns role-playing Mrs. Jones and Laura. What can Laura do to help the Jones family? How can Laura follow up with the family to keep them motivated to eat better and move more? Ask the CHWs to share the results of the role-playing with the entire group.

Activity 12–7: What Community Health Workers Can Do to Help Community Members Make Healthier Food Choices

Ask the CHWs for ideas for helping people eat more healthily. What changes will people need to make? What roadblocks may get in the way?

Encouraging and helping people to choose healthy foods and drinks is very important for creating a healthy community, but it is also very important to create environments and establish policies that offer opportunities for healthy eating for all community members.

For example, CHWs can encourage places of worship to have a policy that encourages healthy (low fat) baked foods instead of high-fat fried foods and less sugary, rich desserts to be brought to social events. Schools and work sites can remove sugary drinks and junk food from their vending machines and replace them with healthier foods and drinks.

Posttest Questions:

Circle the letters for ALL the correct answers in the questions. A question may have more than one answer.

1. Which of the following will help you lower your LDL (bad) cholesterol?

- a. Butter.
- b. Avocado.
- c. Olive oil.
- d. Beans.
- e. Fatty meats.

2. The DASH Eating Plan advises you to eat or drink which of the following?

- a. White, refined breads.
- b. Fruits and vegetables.
- c. Sweet tea.
- d. Foods low in sodium.
- e. Water

3. Useful information on a Nutrition Food label includes

- a. Amount per Serving.
- b. Calories per serving size.
- c. Amounts of saturated fat, cholesterol, and trans fat.
- d. Cost per serving.

Correct Answers to Posttest Questions

1. b,c,d

2. b,d,e

3. a,b,c

Use the BMI chart to find out if your weight is in the healthy range for people of your height.

To use the chart, find your height in the left side of the chart labeled Height. Put your finger on it and move it straight across from that point to the right until you come to your weight. The number at the top of the column is the BMI for that height and weight. Pounds have been rounded off.

Adult BMI charts online. Go to http://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmi_tbl.htm

You can download a BMI App from NIH go to http://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmicalc.htm

Child and Teen BMI calculator online. Go to <http://apps.nccd.cdc.gov/dnpabmi/Calculator.aspx>

What is BMI?

BMI measures weight in relation to height.

Heart disease risk increases at higher levels of overweight and obesity.

My weight _____

My BMI _____

Measure Your Waist:

Your waist measure is high if:

Women: Your waist measurement is more than 35 inches.

Men: Your waist measurement is more than 40 inches.

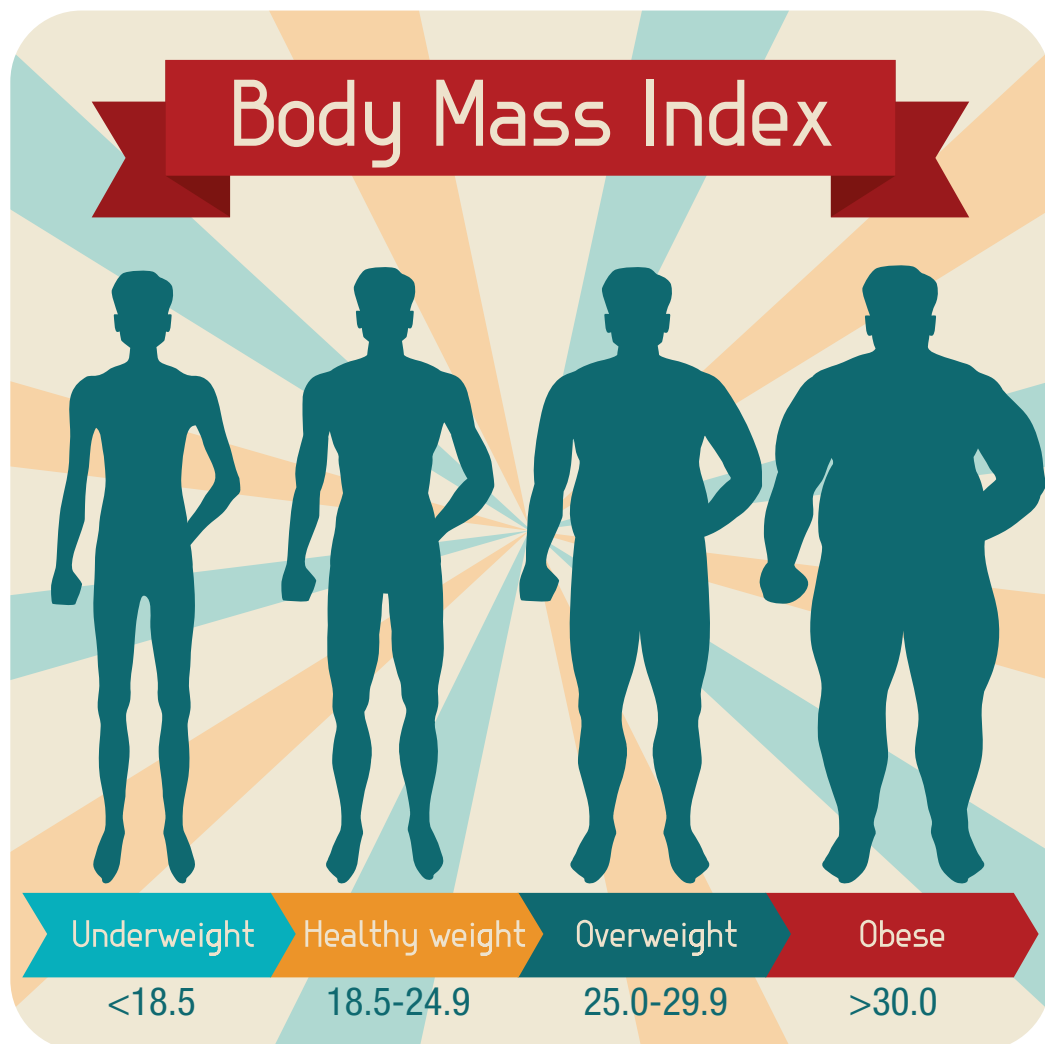
A high waist measurement increases your risk for heart disease.

My waist measurement

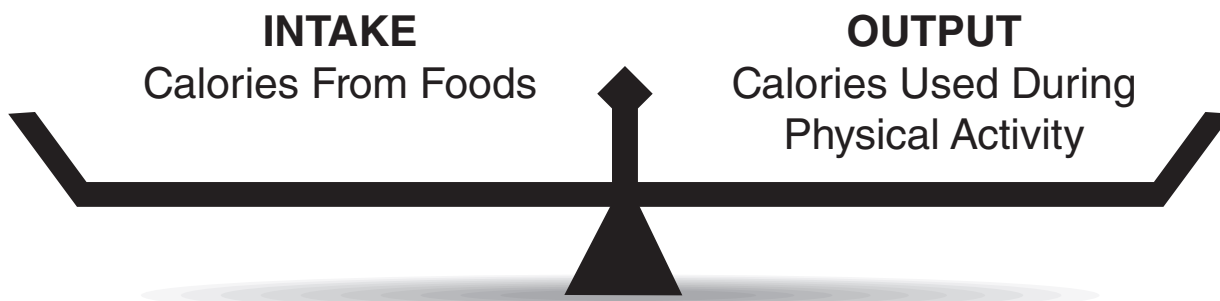
What Does Your BMI Mean?

Healthy Weight (BMI from 18.5 – 24.9)	Overweight (BMI from 25 – 29.9)	Obese (BMI 30 or higher)
<p>Good for you! Try not to gain any weight.</p>	<p>It is important not to gain more weight.</p> <p>You need to lose weight if you have two or more heart disease risk factors and are overweight, or have a high waist measurement.</p> <p>Ask your doctor or registered dietitian for help.</p>	<p>You need to lose weight. Lose weight slowly—about 1-2 pounds a week.</p> <p>Ask your doctor or registered dietitian (nutrition expert) for help.</p>

Source: *Your Heart Your Life: A Lay Health Educator's Manual*. Department of Health and Human Services. Public Health Service; National Institutes of Health; National Heart, Lung, and Blood Institute. <http://www.nhlbi.nih.gov/health-pro/resources/heart/hispanic-health-manual/index.htm>



THE ENERGY BALANCE



Controlling body weight is a balancing act. If you eat more than your body needs to stay healthy, you gain weight. If you eat less and begin getting rid of these extra calories, you lose weight!

If your weight is not in the healthy range, try to reduce health risks by choosing healthy foods and by becoming more physically active. Cutting out one 12 oz. soda (150 calories) or adding a brisk 30-minute walk most days can subtract about 10 pounds from your weight each year.

Tilt the Balance with Healthy Eating


- Eat a variety of foods that are low in calories and high in nutrients. Check the Nutrition Facts label on canned or packaged foods.
- Eat fewer high-fat foods (such as pizza, French fries, and fried food).
- Eat smaller amounts of foods high in fat, sugar, sodium, and calories.
- Eat more vegetables and fruits without adding fats and sugars while preparing them or at the table.
- Eat pasta, rice and whole grain breads and cereals without adding fats and sugars while preparing them or at the table.
- Eat less sugar and fewer sweets (such as candy, cookies, cakes, and ice cream).
- If you drink alcohol, limit it to no more than one drink per day for women or two drinks per day for men. One drink is 1 oz. of hard liquor, 4 oz. of wine, or 12 oz. of beer.

Tilt the Balance with Physical Activity

Adding physical activity to your life will help you burn calories.

The following moderate activities* burn approximately 150 calories:

Examples of Moderate Amounts of Physical Activity

Common Chores	Sporting Activities	Time Needed and Intensity Level
Washing and waxing a car for 45–60 minutes	Playing volleyball for 45–60 minutes	<p>Less Vigorous, More Time</p>  <p>More Vigorous, Less Time</p>
Washing windows or floors for 45–60 minutes	Playing touch football for 45 minutes	
Gardening for 30–45 minutes	Walking 1¾ miles in 35 minutes (20 min/mile)	
Wheeling self in wheelchair for 30–40 minutes	Basketball (shooting baskets) for 30 minutes	
Pushing a stroller 1½ miles in 30 minutes	Bicycling 5 miles in 30 minutes	
Raking leaves for 30 minutes	Dancing fast (social) for 30 minutes	
Walking 2 miles in 30 minutes (15 min/mile)	Water aerobics for 30 minutes	
Shoveling snow for 15 minutes	Swimming laps for 20 minutes	
Stair walking for 15 minutes	Basketball (playing game) for 15–20 minutes	
	Bicycling 4 miles in 15 minutes	
	Jumping rope for 15 minutes	
	Running 1½ miles in 15 minutes (10 min/mile)	

- Talk to your health care provider before starting a vigorous exercise program if you have ever had heart trouble or high blood pressure; if you suffer from chest pains, dizziness or fainting, or arthritis.

Tips to Help You Control Weight

Activity 12-B

1. Choose foods low in fat and low in calories. Try:

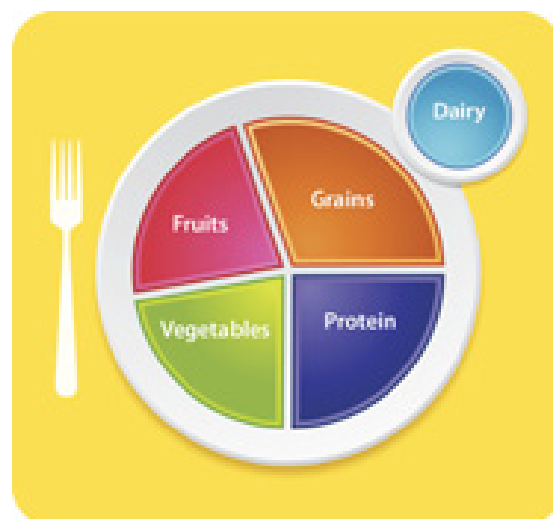
- Fat-free milk or low-fat (1%) milk.
- Cheeses labeled “fat free” or “low fat” on the package.
- Fruits and vegetables without butter or sauce. Fruits and vegetables are low in calories and help you feel fuller.
- Rice, beans, and whole-grain pasta and cereal.
- Lean cuts of meat and fish and skinless turkey and chicken.
- Water or low-calorie drinks instead of soft drinks and fruit drinks with added sugar.

2. Make foods the healthy way.

- Bake, broil, boil, or grill instead of frying foods.
- Cook beans and rice without lard, bacon, or fatty meats.
- Use less high-fat cheese, cream, and butter when cooking.
- Use vegetable oil spray or a little bit of vegetable oil or tub margarine when cooking.
- Flavor salads with fat-free or low-fat mayonnaise or salad dressing.

3. Limit your portion size.

- Serve smaller portions, and don't have second helpings. Have a salad if you are still hungry.
- Eat smaller meals and snacks throughout the day instead of having one big meal.
- When eating out, watch your portion (amount of food) sizes. Many restaurants now serve food portions that are too big. Share an entree, or bring half home.
- If you drink fruit juice, make sure it is 100 percent fruit juice. Keep an eye on the portion size. The calories in beverages add up quickly.



4. Get active! Say goodbye to excuses!

- Do your favorite physical activity for at least 150 minutes a week.

5. Aim for a healthy weight.

Try not to gain extra weight. If you are overweight start slowly. Lose about 1 to 2 pounds a week. Losing even 10 pounds can help reduce your chances of developing heart disease.

Source: "Your Heart, Your Life, A Community Health Worker's Manual." U.S. Department of Health and Human Services, National Institutes of Health, National Heart Lung and Blood Institute. Available at <http://www.nhlbi.nih.gov/health/educational/healthdisp/pdf/tipsheets/Tips-to-Help-You-Control-Your-Weight.pdf>

Recipes and Meal Planning Tips

Healthy Eating and Lifestyle Resource Center A Healthier You

You will find 100 easy-to-make, fun, and delicious recipes based on the Dietary Guidelines for Americans. No advanced cooking skills required, and they taste great. <http://www.whatscooking.fns.usda.gov/>

Million Hearts Healthy Eating & Lifestyle Resource Center

This site has heart-healthy recipes and easy meal plans. <http://recipes.millionhearts.hhs.gov/>

A Healthier You

Here are almost 100 easy-to-make, fun, and delicious recipes based on the Dietary Guidelines for Americans. No advanced cooking skills required, and they taste great. <http://www.health.gov/dietaryguidelines/dga2005/healthieryou/html/recipes.html>

American Heart Association

http://www.heart.org/HEARTORG/GettingHealthy/NutritionCenter/HealthyCooking/Browse-Recipes_UCM_430018_Article.jsp

Healthy Foodbank Hub

http://healthyfoodbankhub.feedingamerica.org/healthy-recipes/?convio_source=Y14YG2F1X&convio_subsource=gcheaphealthymeals&s_keyword=gcheaphealthymeals&gclid=CNzap8Lxn8ACFSxk7AodJHkATQ

Average Daily Amount of Calories (in Kilocalories) for Men and Women by Age

Activity 12–3

Activity Level for Women ^{a,b,c}

Age (years)	Sedentary ^a	Moderately Active ^b	Active ^c
19-30	2,000	2,000-2,200	2,400
31-50	1,800	2,000	2,200
51+	1,600	1,800	2,000-2,200

Activity Level for Men ^{a,b,c}

Age (years)	Sedentary ^a	Moderately Active ^b	Active ^c
19-30	2,400	2,600-2,800	3,000
31-50	2,200	2,400-2,600	2,800-3,000
51+	2,000	2,200-2,400	2,400-2,800

^a Sedentary means a lifestyle that includes only the light physical activity used for typical day-to-day life.

^b Moderately active means a lifestyle that includes physical activity equal to walking about 1.5 to 3 miles per day at 3 to 4 miles per hour, plus the light physical activity used for typical day-to-day life

^c Active means a lifestyle that includes physical activity equal to walking more than 3 miles per day at 3 to 4 miles per hour, plus the light physical activity used for typical day-to-day life.

The calorie ranges shown are adjusted for needs of different ages. For adults, fewer calories are needed at older ages.

You can see the full table or download it at <http://www.health.gov/DIETARYGUIDELINES/dga2005/document/html/chapter2.htm#table3>

The amount of calories you need each day depends on your age and how active you are. Here are some examples of the calorie needs of people at different ages and with different activity levels

Case examples:

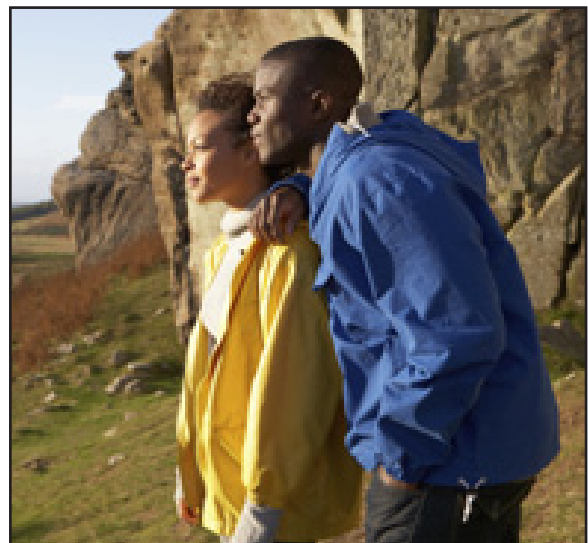


Grandma Brown is 71 years old and only does the light physical activity that is part of daily living. She has low activity. She only needs 1,600 calories a day. This amount is at the lowest end of the range for her age.

Aunt Mary is 45 years old and is moderately active. Besides the light physical activity that is part of daily living, she walks 1 1/2 to 3 miles a day, at 3 to 4 miles an hour. She needs about 2,000 calories a day. This amount is in the middle of the range for her age.

Cousin Joe is 21 years old. He is a highly active person. Besides the light physical activity that is part of daily living, he walks more than 3 miles a day, at 3 to 4 miles an hour. He needs about 3,000 calories a day. This amount is at the high end of the range for his age.

Remember, if you want to lose weight you need take in fewer calories a day and increase your amount of physical activity.



How to Read Food Labels

Activity 12–4

The Nutrition Facts food label found on canned and packaged foods is one of the best tools we have for choosing foods for a healthy diet. The food label gives serving size and number of servings in the container. It also gives the amount of calories, fat, saturated fat, cholesterol, and sodium in one serving of the food.

See examples in Your Heart, Your Life at

http://www.nhlbi.nih.gov/files/docs/resources/heart/lat_mnl_en.pdf

http://www.nhlbi.nih.gov/files/docs/resources/heart/lat_mnl_sp.pdf (Spanish)

Read the Food Label for Sodium

Page 101

Read the Food Label for Saturated Fat

Page 145

Read the Food Label for Calories

Pages 183-186

Also see

How to Control Your Fat and Cholesterol: A Fotonovela

http://www.cdc.gov/cholesterol/docs/fotonovela_cholesterol.pdf

Aprenda a controlar sus niveles de colesterol: Una fotonovela (Spanish)

http://www.cdc.gov/cholesterol/docs/fotonovela_cholesterol_spanish.pdf

Controlling Hypertension by Learning to Control Sodium Intake: A Fotonovela:

http://www.cdc.gov/bloodpressure/docs/English_Novella.pdf

Cómo Controlar su Hipertensión: Aprenda a controlar su consumo de sodio

Spanish Version

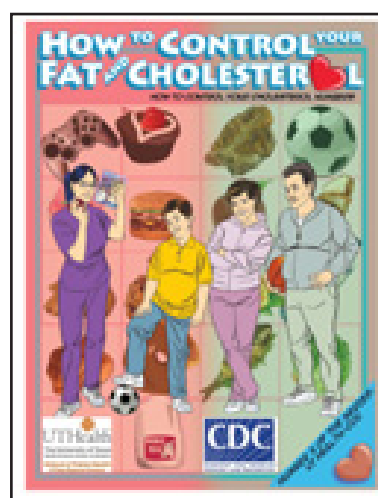
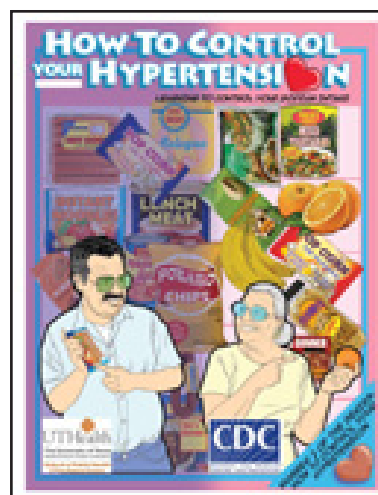
http://www.cdc.gov/bloodpressure/docs/novella_spanish.pdf

The Road to Health Toolkit

<http://www.cdc.gov/diabetes/ndep/pdfs/5-road-to-health-toolkit-activities-guide-508.pdf>

See Promotora Guides at http://www.cdc.gov/bloodpressure/materials_for_patients.htm and

http://www.cdc.gov/cholesterol/materials_for_patients.htm



Following the DASH Eating Plan

Food Group	Daily Servings	Serving Sizes	Examples	Importance of Each Food Group to the DASH Eating Plan
Grains	6-8	1 slice bread 1 oz dry cereal** 1/2 cup cooked rice, pasta, or cereal	Whole grain bread, rolls, pasta, and cereals, English muffin, pita bread, bagel, grits, oatmeal, brown rice, unsalted pretzels and popcorn	Major sources of energy and fiber
Vegetables	4-5	1 cup raw leafy vegetable 1/2 cup cut-up raw or cooked vegetable 1/2 cup vegetable juice	Broccoli, carrots, collards, green beans, green peas, kale, lima beans, potatoes, spinach, squash, sweet potatoes, tomatoes	Rich sources of potassium, magnesium, and fiber
Fruits	4-5	1 medium fruit 1/4 cup dried fruit 1/2 cup fresh, frozen, or canned fruit 1/2 cup fruit juice	Apples, apricots, bananas, dates, grapes, oranges, grapefruit, grapefruit juice, mangoes, melons, peaches, pineapples, raisins, strawberries, tangerines	Important sources of potassium, magnesium, and fiber
Fat-free or low-fat milk and milk products	2-3	1 cup milk or yogurt 1 1/2 oz cheese	Fat-free (skim) or low-fat (1%) milk or buttermilk, fat-free, low-fat, or reduced-fat cheese, fat-free or low-fat regular or frozen yogurt	Major sources of calcium and protein

* Whole grains are best for most grain servings as a good source of fiber and nutrients.

** Serving sizes vary between 1/2 cup and 1 ¼ cups. Check the Nutrition Facts label.

Food Group	Daily Servings	Serving Sizes	Examples	Importance of Each Food Group to the DASH Eating Plan
Lean meats, poultry, and fish	6 or less	1 oz cooked meats, poultry, or fish 1 egg***	Select only lean; trim away visible fats; broil, roast, or poach; remove skin from poultry	Rich sources of protein and magnesium
Nuts, seeds, and legumes	4-5 per week	1/3 cup or 1 1/2 oz nuts 2 Tbsp peanut butter 2 Tbsp or 1/2 oz seeds 1/2 cup cooked legumes (dry beans and peas)	Almonds, hazelnuts, mixed nuts, peanuts, walnuts, sunflower seeds, peanut butter, kidney beans, lentils, split peas	Rich sources of energy, magnesium, protein, and fiber
Fats and oils	2-3	1 tsp soft margarine 1 tsp vegetable oil 1 Tbsp mayonnaise 2 Tbsp salad dressing	Soft margarine, vegetable oil (such as canola, corn, olive, or safflower), low-fat mayonnaise, light salad dressing	The DASH study had 27 percent of calories as fat, including fat in or added to foods
Sweets and added sugars	5 or less per week	1 Tbsp sugar 1 Tbsp jelly or jam 1/2 cup sorbet, gelatin 1 cup lemonade	Fruit-flavored gelatin, fruit punch, hard candy, jelly, maple syrup, sorbet and ices, sugar	Sweets should be low in fat

*** Eggs are high in cholesterol, limit egg yolk intake to no more than four per week.

**** Fat content is lower in low-fat and fat-free dressing.

The DASH eating plan shown is based on 2,000 calories a day. The number of daily servings in a food group may vary from those listed depending on how active you are. If you are a very active person please see box 4 at <http://www.nhlbi.nih.gov/health/resources/heart/hbp-dash-how-to.html#box4>

You can get more tips on how to get started on the DASH eating plan at <http://www.nhlbi.nih.gov/health/resources/heart/hbp-dash-how-to-start.html#box13>



Role-Playing: Helping Mrs. Jones and Her Family

Activity 12-6

Let's practice what we have learned. Mrs. Jones and her family are in trouble and need help from Laura, the CHW.

Mrs. Jones is a busy mom who has a full time job in an office. She has 2 children in school. She is overweight and stressed-out. She is tired and does not have time to cook at night. She often stops at a fast-food restaurant to pick up dinner for the family. She and her family eat sugary cereals for breakfast. For lunch, Mrs. Jones sometimes eats donuts and other unhealthy junk food, and sugary drinks from the break room at work. She is also too tired to be physically active. Her children spend many hours watching TV, playing video games, and on phones.

Laura, the CHW meets Mrs. Jones at the doctor's office. The doctor told Mrs. Jones the children are overweight and have high blood pressure and high blood cholesterol. He said that Mrs. Jones and the children must make changes because they are all at risk for heart disease. He has asked Laura to help the Jones family make better choices.

Take turns role-playing Mrs. Jones and Laura. What can Laura do to help the Jones Family? How can Laura follow up with the family to keep them motivated to eat better and move more? Report back to the group the results of the role-playing.



What CHWs Can Do to Help Community Members Make Healthier Food Choices (with Program Support)

Activity 12–7

Talk about the benefits of healthier eating.

- You will feel better and have more energy.
- You will reduce the risk for heart disease, stroke, diabetes, and other health problems.
- You can lose weight, feel better, and increase your chance for a longer and healthier life.

Support people in their efforts to adopt and maintain better changes in their eating habits.

Help people find affordable fresh fruits and vegetables and other healthy foods.

Support efforts to have healthier food choices in schools, worksites, and other places in the community.



Roadblocks to Healthier Eating	Overcoming These Roadblocks
I don't have time...	Plan ahead, pack your lunch the night before for the next day, plan meals and shop ahead of time for a variety of nutrient-rich foods for meals and snacks throughout the week. Bring a healthy snack when you are away from home. On a long commute or shopping trip, pack some fresh fruit, cut-up vegetables, string cheese sticks, or a handful of unsalted nuts to help avoid impulsive, less healthful snack choices.
There are times during the day and in the evening when I am used to eating junk food, desserts, etc...	Plan ahead for these times and have low fat, low sugar items ready to eat like cut up fresh fruit and veggies and unbuttered, unsalted popcorn, stop buying and eating junk food like chips, packaged baked items, and soda. If you have these items in your house, put them out of sight.
I don't know how to get started...	<p>Ask your healthcare provider or employer if there is a nutrition class you could take or a nutritionist you can talk to, make an action plan and set goals for yourself, look for healthier cooking recipes.</p> <p>When grabbing lunch, have a sandwich on whole-grain bread and choose low-fat/fat-free milk, water, or other drinks without added sugars. In a restaurant, have steamed, grilled, or broiled dishes instead of those that are fried or sautéed.</p>
When I feel stressed I eat junk food...	Instead of eating unhealthy foods choose fresh fruits, veggies, or unbuttered, unsalted popcorn, go for a walk, work on a hobby, do something relaxing that you enjoy, drink water.
I'm afraid of slipping into old habits...	Find a support group in your community, ask your family and friends to support you, set new goals, make healthy eating a priority. Try new fruits, veggies, and grains, and recipes to keep from getting bored.
It's hard when I'm away from home...	Bring healthy snacks with you, drink water, make time for physical activity, and choose healthy foods when eating out.

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Objectives

By the end of this session, community health workers will be able to

- Explain why physical activity is important.
- Explain to community members the basics of a personal physical activity program.
- Explain how much physical activity is needed.
- Explain how physical activity helps people lose weight.
- Describe ways to motivate people to become more physically active.
- Describe ways to help the community be more supportive of physical activity.

Before the training session, make a list of free or low-cost recreational opportunities in your community and places where people can be physically active (for example, parks, community and recreation centers, senior centers, available school facilities, walking groups, walking trails, yoga or Tai Chi classes, dance programs, shopping mall walking programs, and ball fields). Make a copy of the list for each participant.

Activities:

- 13–1: What Physical Activity Can Do for You
- 13–2: My Personal Physical Activity Plan
- 13–3: Make Physical Activity a Habit: My Personal Log
- 13–4: Ways to Add Physical Activity to Your Life
- 13–5: Walking Tips
- 13–6: Examples of Physical Activities and Their Intensity Levels
- 13–7: Ideas for Becoming More Physically Active
- 13–8: What Can Communities Do to Support Physical Activity?

Chapter Outline

- A. Why Is Physical Activity So Important?
- B. How Do I Get Started?
- C. How Much Physical Activity Is Needed?
- D. How Does Physical Activity Help People Lose Weight?
- E. What Community Health Workers Can Do to Help People Become More Physically Active
- F. How Community Health Workers Can Help Create More Physically Active Communities

Pretest Questions

Circle the letters for ALL the correct answers in the questions.
A question may have more than one correct answer.

1. Why is being physically active important for health?

- a. Lowers the risk of developing heart disease
- b. Lowers stress levels
- c. Helps control weight
- d. Helps control blood glucose

2. Adults should be active at least

- a. 150 minutes a week
- b. 60 minutes a week.

3. Which of the following are examples of moderate-level intensity physical activity?

- a. Running
- b. Gardening
- c. Line dancing
- d. Actively playing with kids

► Talking Points

In earlier sessions, we talked about how important physical activity is. We've learned that being physically inactive puts people at risk for heart disease and stroke. Inactive adults have a higher risk for early death, heart disease, stroke, type 2 diabetes, depression, and some cancers.

Men, women, and children are less active now than in the past. Fewer than half of all adults in America get the recommended amount of physical activity—at least 150 minutes a week.

Regular physical activity is important at all ages. Middle-aged and older people benefit from regular physical activity just as much as young people do.

A. Why Is Physical Activity So Important?**► Talking Points**

There are many reasons people should try to be physically active each day. For example, physical activity can

- Lower the risk of developing heart disease and the risk of dying from heart disease.
- Lower the risk of having a second heart attack in people who have already had one heart attack.
- Lower blood pressure.
- Lower the risk of stroke.
- Lower the risk of developing high blood pressure.
- Lower the risk of developing Type 2 diabetes.
- Lower both total blood cholesterol and triglycerides and increase HDL—the “good” cholesterol.

Activity 13–1: Reasons Why Being Physically Active Is Important

Ask the CHWs if they can think of other reasons for being active other than the ones given above.

If CHWs don't mention the following reasons, add them

- Gives you more energy.
- Lowers your stress and feelings of depression and anxiety.
- You feel better about yourself.
- You control your blood glucose.
- You sleep better.
- You build and keep healthy bones and muscles.
- Older adults become stronger and better able to move about without falling or becoming very tired.
- You control your weight.
- Reduce your risk of some cancers.
- Improve your mental health and mood.
- Improve your ability to do daily activities and prevent falls, if you're an older adult.
- Increase your chances of living longer.

Pass out copies of the activity handout and ask them to add their ideas to the list.

► **Talking Points**

Two types of physical activity are important for staying healthy and fit:

- **Muscle strengthening.** This type builds muscle and increases metabolism and helps to keep people's weight and blood sugar in check. Examples include lifting weights, working with resistance bands, doing exercises that use body weight for resistance. (push-ups, sit-ups)
- **Aerobic.** Almost anything counts, as long as it's done at a moderate- or vigorous-intensity for at least 10 minutes at a time. Examples include walking, running, gardening, dancing, swimming, and playing actively with kids.

B. How Do I Get Started?

► Talking Points

There are a few things people should know before starting to become more active.

Most people can safely increase their physical activity if they start slowly and sensibly. Before beginning, it's important to talk to your doctor or nurse, especially if you have

- Arthritis.
- Diabetes.
- High blood pressure.
- Heart disease.
- Pain or discomfort in the chest brought on by vigorous physical activity.
- Dizziness, lightheaded, or get breathless after mild activity.
- Other health problems.

If a person has had a heart attack, it's important that he or she talk to the doctor to get help in planning a safe activity program. Try to be as active as much as you can. What's important is that you avoid being inactive.

People who include regular physical activity in their lives reduce their risk of dying early.

Everyone can gain the health benefits of physical activity - age, ethnicity, shape or size do not matter.

Drink plenty of water before and after exercising, even if you're not thirsty. Special sports drinks aren't needed.

Wear comfortable clothes, and wear shoes that give your feet support.

Put off physical activity if you have a fever or are sick.

Many communities have parks, recreation centers, and community centers, that are open to all without cost, and many offer free or low-cost classes.

Activity 13–2: My Personal Physical Activity Plan Tell CHWs that setting a goal is a good way to get started on increasing physical activity and to stay on track. Review Handout 13-2 with the CHWs. Have them fill out activity plans for themselves. Ask them to share their plans. Tell them that Handouts 13-2 and 13-3 are useful handouts for CHWs to give community members.

Activity 13–3: Make Physical Activity a Habit: My Personal Record

Another suggestion to help people stay on track is to keep a Physical Activity Record or log. This record tracks time spent or miles walked. One mile walked, or about 20 minutes of moderate activity, burns 100 calories.

You may find online logs and diaries and phone apps that will help you keep track. Also, electronic activity trackers are sold in many places.

You can find an easy log at <http://www.health.gov/paguidelines/guidelines/keepingtrack.pdf>

► Talking Points

You should know about places where people can be active in your community and where physical activity classes are offered. Check if shopping malls near you have walking programs. Many malls are open early in the morning and late at night to provide a safe walking place for people who don't want to walk alone, in the dark, or outside. Many other places, such as parks, recreation centers, and schools, have physical activity areas. Remind community members who go walking after dark to make sure the area is well-lit and to go with a friend or two.

Recreation centers and senior centers often offer water aerobic or water arthritis classes or Tai Chi classes that help improve flexibility and balance. They may also offer sitting exercise classes for people who cannot stand or walk easily.

Give each participant a copy of the list of local recreational facilities and free or low-cost physical activity classes. Ask them to look for other opportunities and places in their communities and report back the next time you meet.

There are a variety of enjoyable physical activities. The key is to find one that you like. Some of the most popular are

- **Walking.** This activity is the most natural exercise of all, and it fits with most everyone's lifestyle.
- **Gentle exercise.** Classes that teach gentle exercise provide great opportunities to be social and to get support from others in becoming more physically active.
- **Swimming.** This activity provides good all-around exercise and is a great way to get fit.
- **Arthritis water classes.** This type of exercise is usually taught in a group class in the water and is especially popular among older adults.
- **Weight training.** This exercise keeps bones and muscles strong.
- **Tai Chi.** This form of martial arts combines a physical workout with relaxation.
- **Gardening.** This activity provides hours of enjoyment while improving strength and flexibility.

Activity 13–4: Ways to Add Physical Activity to Your Life Watch the short video about how some people started adding activity to their lives. <http://www.cdc.gov/physicalactivity/everyone/getactive/index.html>

Use it to get the CHWs talking about ways they think people in their communities could add more activity into their lives.

Review the suggestions in the handout with the CHWs. Discuss how they can use this handout when talking to community members.

► Talking Points:

If you are still unsure which type of activity might be best for you, try walking. Walking doesn't require special equipment, it doesn't cost anything, and it can be a lot of fun.

A goal to set for yourself is walking 10,000 steps each day. The best way to keep track of your steps is to buy a low-cost pedometer from a discount store, drugstore, or grocery store. You fasten the pedometer to your belt, pants, or skirt, and it measures your steps. Wear the pedometer for two weeks, and at the end of each day write down the number of steps you took. You might be surprised to see how few steps you take. Set a goal to slowly increase the

number of steps you take each day (for example, add 500 steps a day for one week, then add 500 more steps daily the following week, and so on) until you reach 10,000 steps a day. You can do it!

Activity 13–5: Walking Tips Review the walking guidelines in this handout with the CHWs. Ask them how they can use this handout to help community members start walking.

C. How Much Physical Activity Is Needed?

► Talking Points

Adults should get a total of at least 150 minutes of moderate physical activity a week.

We know 150 minutes each week sounds like a lot of time, but it's not. That's 2 hours and 30 minutes, about the same amount of time you might spend watching a movie.

The good news is that you can spread your activity out during the week, so you don't have to do it all at once. You can even break it up into smaller chunks of time during the day.

It's about what works best for you, as long as you're doing physical activity at a moderate or vigorous effort for at least 10 minutes at a time.

If you can't set aside 30 minutes or more at one time to be active, you can break your activity into shorter periods of at least 10 minutes.

For example, you can

- Park your car farther away and walk to your office, or take the stairs instead of the elevator. If done before and after work, this change could equal 10 minutes of physical activity each workday.
- Take a 10-minute walk at lunch time.
- Dance to your favorite music for at least 10 minutes later in the day.
- On grocery shopping trips, park as far from the store as possible and walk around the store a couple of times before you begin your shopping. You will have added another 10 minutes.

Remember, whatever activity you choose to do, be physically active, at least 150 minutes a week.

Increasing the intensity or the amount of time that you are physically active can have even greater health benefits and may be needed to control body

weight. You may find that you might need to be active more than 150 minutes a week to lose weight or to maintain a weight loss.

Children and teenagers should be getting 60 minutes of activity throughout their entire day.

For adults 65 years of age and older, regular physical activity is one of the most important things you can do for your health. It can prevent many of the health problems that seem to come with age. It also helps your muscles grow stronger, so you can keep doing your day-to-day activities without becoming dependent on others.

Not doing any physical activity can be bad for you, no matter your age or health condition. Keep in mind, some physical activity is better than none at all. Your health benefits will also increase with the more physical activity that you do.

If you're 65 years of age or older, are generally fit, and have no limiting health conditions you should aim for 150 minutes of physical activity a week.

Ask

Is it okay for women to be physically active while they are pregnant and after they have their babies?

Yes! If women are healthy while pregnant and after they have had babies, physical activity is good for their overall health. For example, moderate-intensity physical activity, such as brisk walking, keeps your heart and lungs healthy during and after pregnancy. Physical activity also helps improve your mood after having a baby. After you have your baby, exercise helps maintain a healthy weight, and when combined with eating fewer calories helps with weight loss.

Ask

How do you know if an activity is at a moderate level of intensity?

► Talking Points

A simple method for measuring intensity of an activity is the “talk test.”

If you are active at a moderate intensity level, you should be able to talk to others comfortably during the activity, but not sing.

If you become too winded or too out of breath to talk to others, the intensity level of the activity is high.

Activity 13–6: Examples of Physical Activities and Their Intensity Levels Review the handout with the CHWs. Point out activities that can be done at different intensity levels, such as housework, golf, swimming, and bicycling. CHWs should advise non-active people to start with activities at moderate intensity levels and work up to activities at high intensity levels.

D. How Does Physical Activity Help People Lose Weight?

► Talking Points

Physical activity burns calories.

A calorie is a measure of the energy in food. You may remember from an earlier session that we get nutrients and energy from the food we eat. Food is our bodies' fuel.

The more calories in a food, the more energy or activity it takes to burn those calories. Extra calories are stored in our bodies as fat. You should burn at least 1,000 calories a week by being physically active.

- Walking one mile (2,000 steps) in about 20 minutes burns about 100 calories.
- Walking two miles (4,000 steps) five times a week will burn about 1,000 calories.
- Drinking one 12-ounce soda (150 calories) a day can add about 10 pounds to your weight each year.
- Thirty minutes of brisk walking most days can subtract about 10 pounds from your weight each year.

E. What Community Health Workers Can Do to Help People Become More Physically Active

Discussion

Invite the CHWs to share ideas on how they can help people in their community become more physically active. Some examples might be

- If a person has been inactive for a while, encourage him or her to start slowly. He or she should start out with as little as five minutes of walking at a time and then slowly more add minutes to that time, until they each at least 150 minutes a week,
- Help people choose physical activities they'll enjoy. They'll be more likely to stick with them.
- Advise people to slowly build the time spent doing an activity by adding a few minutes every few days or so until they've reached at least 150 minutes of activity a week.
- As they find that becoming more active becomes easier, they should gradually increase either the number of minutes or the intensity of the activity.
- Encourage people to try new activities to keep from becoming bored with one and to get the benefits of different activities.
- Encourage people to reward themselves for their efforts (with something other than a sugary or fat-filled snack, of course).

Discussion: Reasons Why People Are Not Physically Active Ask the CHWs to share their ideas about why people are not physically active. Write their answers on a flipchart. If no one mentions the following reasons, add them to the list.

Possible answers are

- Do not have enough time to exercise.
- Find it inconvenient to exercise.
- Lack self-motivation.
- Do not find exercise enjoyable.
- Find exercise boring.

- Lack confidence in the ability to be physically active.
- Fear being injured or have been injured recently.
- Lack self-management skills, such as the ability to set personal goals, monitor progress, or reward progress toward such goals.
- Lack encouragement, support, or company of family and friends.
- Do not have parks, sidewalks, bicycle trails, or safe and pleasant walking paths convenient to home or office.

Activity 13–7: Ideas for Becoming More Physically Active Ask the CHWs for more suggestions on how to encourage people to be physically active. Have the CHWs take turns role playing a CHW and a community member who needs to be more active but has excuses. See how CHWs can help the community member overcome his or her roadblocks. Review the ideas for becoming more physically active on the handout. Ask the CHWs to add their ideas to the list.

F. How Community Health Workers Can Help Create More Physically Active Communities

► Talking Points

There are many ways that you can help people in your community who are at risk for heart attack and stroke to be more physically active. For example

- Know the locations of walking trails, parks, and other places to walk in your community. Have maps available if possible.
- Know about shopping mall walking programs or other free physical activity programs.
- Talk to local recreation groups about sponsoring programs for community members who don't have free recreation programs where they live and can't afford those that charge a fee.
- Get to know community members who can help promote health and physical fitness programs and opportunities (for example, leaders of local non-profit organizations).

- Encourage and support people in the community who need to do rehab after a stroke or heart attack or other physical therapy activities.

To learn more about programs in your state for promoting physical activity and reducing obesity, visit the Web site of the Centers for Disease Control and Prevention's State-Based Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases at www.cdc.gov/nccdphp/dnpa/obesity/state_programs/index.htm

Activity 13–8: What Can Communities Do to Support Physical Activity? Ask the CHWs to share examples of how their communities support physical activity.

Discuss Handout 13-8 with the CHWs. Tell them that encouraging and helping people to be active is very important for the health of their community. Remind them that they can play a vital role in helping to shape community policies and to create an environment that encourages active lifestyles for all community members.

Invite the CHWs to talk about ways they can encourage physical activity in their communities. This might include

- Explain the benefits of physical activity to community members.
- Help people overcome barriers to being physically active.
- Be a role model themselves.
- Give talks to community groups,
- Lead or organize walking groups,
- Work with community groups to identify community needs and resources and to plan and ask for safe sidewalks, in neighborhoods and business areas; safe, attractive walking trails, parks, and play areas; and running tracks, ball fields, and other facilities open to the public.

Posttest Questions

Circle the letters for ALL the correct answers in the questions.
A question may have more than one correct answer.

1. Why is being physically active important for health?

- a. Lowers the risk of developing heart disease
- b. Lowers stress levels
- c. Helps control weight
- d. Helps control blood glucose

2. Adults should be active at least

- a. 150 minutes a week
- b. 60 minutes a week.

3. Which of the following are examples of moderate-level intensity physical activity?

- a. Running
- b. Gardening
- c. Line dancing
- d. Actively playing with kids

Correct Answers to Posttest Questions

1. a,b,c,d

2. a

3. b,c,d

What Physical Activity Can Do For You

Activity 13–1

- Give you energy.
- Lower your chance for a heart attack.
- Lower your risk for a stroke.
- Lower your risk for diabetes.
- Lower your stress level.
- Help control you blood pressure, blood cholesterol, and blood glucose.
- Help you sleep better.
- Help you control your weight.
- Helps people become stronger.
- Helps you build and keep stronger muscles and bones.



My Personal Physical Activity Plan

Activity 13–2

My goal is to spend _____ minutes per week in physical activity.

I plan to meet my goal by:

1. _____
2. _____

I know my roadblocks to being more physically active are:

1. _____
2. _____

I will overcome my roadblocks by:

1. _____
2. _____

At the end of four weeks, I will reward myself. My reward is:

Signed: _____ Today's date: _____

Did you meet your goal?

Yes Congratulations! Decide if you want to keep your goal or set a new goal, but keep going!

No Review your roadblocks, set a new goal, and try again!



Make Physical Activity a Habit

Activity 13–3

My Personal Log

Name _____



Fill this in every day so you can see how you are doing each week.
Write in the number of minutes you are active each day and the activity you did.



	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Example Week 1	<i>5 mins</i>	5	10	10	15	15	15
Week 1							
Week 2							
Week 3							
Week 4							
Week 5							
Week 6							
Week 7							
Week 8							

Ways to Add Physical Activity to Your Daily Life

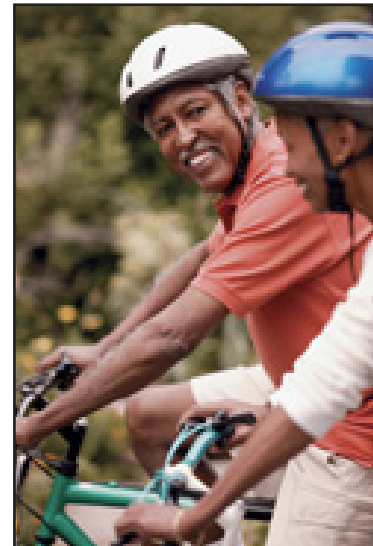
Activity 13–4

There are 1,440 minutes in every day. Use some of them for physical activity.

Adults need recess too! With a little creativity and planning, even the person with the busiest schedule can make room for physical activity. For many folks, before or after work or meals is often a good time to walk, or play. Think about your weekly or daily schedule and look for or make ways to be more active.

Every little bit helps. Consider these ideas

- Walk or cycle to work, school, the store, or your place of worship.
- Park your car farther away and walk.
- Get on or off the bus one or two stops early and walk home or to work.
- Take the stairs instead of the elevator or escalator.
- Play with children or pets. Everyone wins. If you find it too hard to be active after work, try being active before work.
- Take fitness breaks – walking or doing desk exercises – instead of taking coffee breaks.
- Garden.
- Use leg power. Take small trips on foot to get your body moving.
- Exercise while watching TV or talking on the phone. For example, use hand weights, ride a stationary bicycle, or stretch.
- Dance to your favorite music.
- Keep a pair of comfortable walking or running shoes in your car and where you work. You'll be ready for activity wherever you go!
- Make a Sunday morning walk a group habit with friends and family.
- Walk while doing errands.
- Play sports.
- Join the other walkers at shopping malls open for walking early in the morning.
- Jump rope or play tag with your kids or grandkids.



Walking Tips

Activity 13–5

Why walk? It is easy. It is free. It is safe. It improves your health. But if you don't like to walk, choose any activity that helps you move.

How often and how long should I walk? It depends on how active you are now and the condition of your health. Just increasing your daily activities will improve your health. It doesn't take much more activity to improve your fitness level.

Can you talk while you walk? You should be able to walk and talk at the same time. If you can't talk because you are gasping for air, you are going too fast. If you can talk as easily while walking as you can while standing still, you may want to go a little faster. However, your pace should feel comfortable to you.

Where can I walk? You can walk anywhere that is easy, close, and safe for you. Plan where you will walk before you go and think about flat places near your home, such as shopping malls, school tracks, or your street. Think about your safety! Find a walking partner, or if you do walk alone, make sure someone knows when and where you are walking.

What do I wear? Wear loose-fitting clothes and comfortable, well-cushioned athletic or walking shoes. Wear socks to give a little more cushion and help prevent blisters.

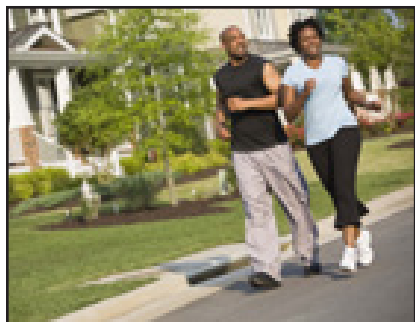
When should I not walk? Do not walk if you are sick or have a fever. Wait 24 hours after your temperature is normal before increasing your activity.

Do not walk outdoors if the weather is too hot or too cold. When it is hot, consider the temperature and humidity. You might want to walk indoors if the temperature is higher than 80 degrees. When it is cold, consider the temperature and the wind chill. You might want to walk indoors when the temperature goes below 40 degrees.

If you miss more than 3 days of walking, decrease your time and begin again slowly. This is a plan for life, so don't worry about "catching up" too soon.

If you have warning signs, such as an uncomfortable feeling of constant pressure, pain, or fullness or squeezing in the chest, shortness of breath, nausea, light-headedness, abnormal heartbeat, or any other signs of trouble, get medical help immediately!

Call 9-1-1, the emergency rescue service, or have someone drive you to the nearest hospital with cardiac emergency care.



Some Examples of Activities and Their Intensity Levels

Activity 13–6

Moderate activities

- Your heart beats faster than normal
- You can talk but not sing

Vigorous activities

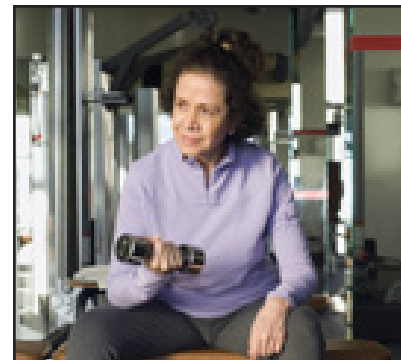
- Your heart rate increases a lot
- You can't talk or talking is broken up by large breaths

Moderate-Intensity Activities

- Fast walking
- Swimming slowly
- Mowing lawn (using a power motor), raking and bagging leaves
- Tennis (doubles)
- Bicycling 5 to 9 mph on level roads or with a few hills
- Scrubbing floors or washing windows
- Strength training (using machines or free weights)
- Actively playing with kids

Vigorous-Intensity Activities:

- Racewalking, jogging, or running
- Swimming steady laps
- Mowing the lawn (using a hand mower)
- Tennis (singles)
- Bicycling more than 10 mph, or on steep uphill roads
- Moving or pushing furniture
- Circuit training



Videos

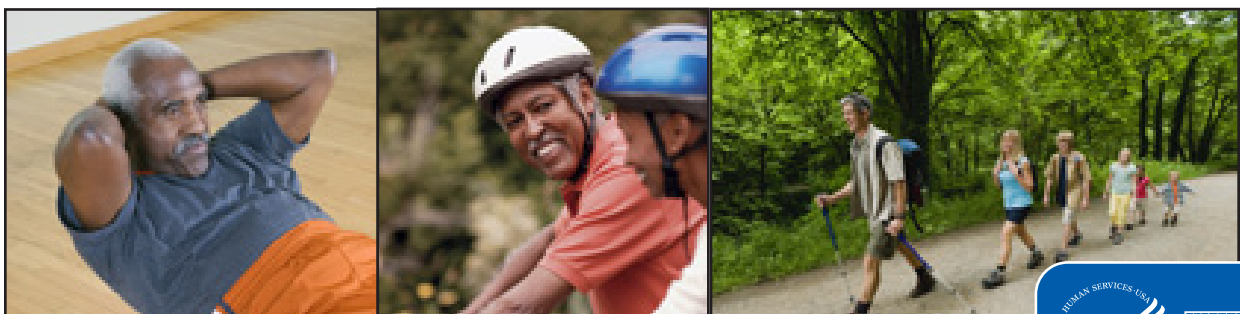
These videos help explain the guidelines, give you tips on how to meet them and show you how to do muscle strengthening exercises properly.

At <http://www.cdc.gov/physicalactivity/everyone/videos/index.html>

Ideas for Becoming More Physically Active

Activity 13–7

Roadblock	Solution Idea
“Being active is hard work.”	Pick an activity that you enjoy and that is easy for you. “No pain, no gain” is a myth.
“I don’t have time.”	Can you do without three TV shows each week to make time for physical activity?
“I do not enjoy being active.”	Begin with an active hobby or way of playing a sport or game that gets you moving.
“There is no convenient place.”	Pick an activity you can do near your home or work. Walk around your neighborhood, or workout while watching a TV show at home, or workout while watching a video.
“I am usually too tired.”	Regular activity will improve your energy level. Tell yourself, “This activity will give me more energy.”
“I do not have a safe place.”	If your neighborhood is not safe, you can walk at work, walk in a group, or walk in the morning.
“I do not have anyone to go with me.”	Maybe you have not asked. A neighbor, family member, friend, or someone at work may be a willing partner.
“The weather is too bad.”	There are many activities you can do in your home, in any weather. You can also walk in malls or go dancing.
“It is boring.”	Listening to music during your activity keeps your mind occupied. Walking, biking, or running can take you past lots of interesting scenery.
“I am afraid of being hurt.”	You can avoid muscle soreness by starting slowly and stretching after your activity. Walking is very safe, and it is a great activity to improve your health.
“I am too overweight.”	You can benefit from physical activity regardless of your weight. Pick an activity that is for you, such as walking. It’s never too late to start being active.
“I am too old.”	Age is not a problem! If you have medical problems, it is important to talk to your doctor about doing physical activity that suits you.
“I do not enjoy it.”	Start a new hobby or an enjoyable activity that gets you moving.



What Can Communities Do to Support Physical Activity?

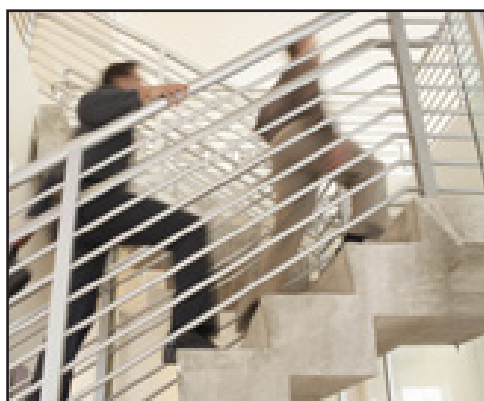
Activity 13–8

In the community

- Ask for simple signs that point to stairs, and encourage people to take the stairs instead of elevators.
- Ask for clean, lighted stairwells.
- Ask for more places and more opportunities where people can be physically active and feel safe.

In worksites

- Ask for policies that allow employees to use work time for healthy activities, such as walking.
- Ask for walking trails and other places to exercise, and for support for walking groups.
- Ask employers to partner with community organizations such as the YMCAs, to create opportunities for their workers to be physically active.

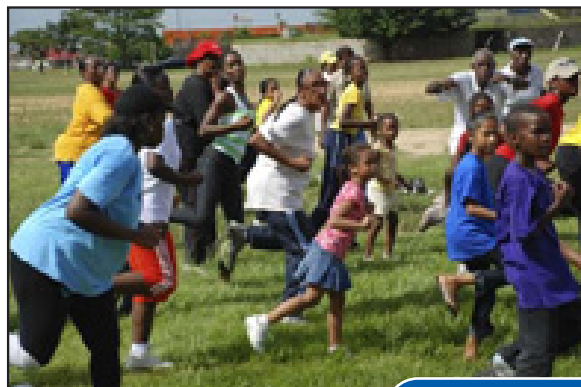


In schools

- Ask schools to offer physical education (PE), to have better-educated PE teachers, and to increase the amount of time for student physical activity. If schools have stopped giving recess and PE classes, ask for a policy to put them back in place.

In health care sites

- Doctors, other health care providers, and CHWs should encourage people to take part in regular physical activity.



Objectives

By the end of this session, community health workers will be able to

- List the harmful effects of smoking.
- List the harmful effects of secondhand smoke.
- List the positive effects of not smoking.
- Describe methods for helping smokers quit smoking.
- Describe methods for helping people stay smoke free.

Activities

- 14–1: How Smoking, Second Hand Smoke and Chewing Tobacco Can Harm You
- 14–2: Role Play: How to Ask Someone to Not Smoke Around You
- 14–3: Are You Ready to Stop Smoking?
- 14–4: Do the Math
- 14–5: Reasons for Becoming Smoke Free
- 14–6: 5 Steps to Quitting Smoking
- 14–7: Lift the Lid on Chew Tobacco: Get the Truth
- 14–8: What Can Communities Do to Prevent Tobacco Use?

Chapter Outline

- A. What Makes Tobacco Smoke So Harmful?
- B. Is It Harmful to Be Around Smoking?
- C. The Benefits of Quitting Smoking
- D. Helping People to Quit Smoking
- E. What Community Health Workers Can Do to Help Smokers Quit and Stay Smoke Free
- F. A Word About Smokeless Tobacco
- G. Helping Parents Prevent Smoking

Pretest Questions

Circle the letters for ALL the correct answers in the questions. A question may have more than one answer.

1. Smoking causes which of the following?

- a. Heart disease
- b. Stroke
- c. Heart attack
- d. Cancer
- e. Lung disease

2. What are good ways to get people to stop smoking?

- a. Nag them.
- b. Get them to go with you to smoke free events
- c. Give them tips and resources for staying smoke free.
- d. Only let them smoke in your yard.

3. What are the benefits of quitting smoking?

- a. Blood pressure will go down.
- b. Hair will grow longer.
- c. Reduce risk for heart disease, heart attack, and stroke.
- d. Save money.

4. Which of the following statements about high blood pressure is FALSE?

- a. Secondhand smoke is not a problem
- b. Secondhand smoke will not hurt people with heart disease.
- c. Secondhand smoke can trigger asthma attacks.

► Talking Points:

We've all heard—and we all know—that smoking is bad for your health. In the United States, cigarette smoking kills more than 480,000 people each year from diseases related to smoking. Also, another 41,000 people die each year because they were exposed to secondhand smoking (smoking by others around them). More than 1,300 persons die each day. Smoking causes about one of every five deaths.

Smoking harms nearly every organ of the body, causing many diseases. This damage can lead to a poor quality of life and earlier death. On average, adults who smoke cigarettes die 10 years earlier than nonsmokers do.

A. What Makes Tobacco Smoke So Harmful?

► Talking Points:

Tobacco contains more than 7,000 other chemicals: 70 of these chemicals are known to cause cancer. These cancer-causing chemicals are called **carcinogens**.

They include

- Carbon monoxide (the same chemical that exists in car exhaust fumes).
- Benzene.
- Formaldehyde.
- Methanol (wood alcohol).
- Acetylene (the fuel used in welding torches).
- Ammonia.
- Coal tar.
- Cyanide (poison).
- Poison gases: carbon monoxide and nitrogen oxide.

But just how does smoking harm your heart?

When you smoke, you breathe in a number of chemicals, one of which is carbon monoxide. Carbon monoxide keeps blood cells from taking in the oxygen that the rest of your body needs to keep you healthy.

Tobacco smoke contains nicotine, a drug that you can become addicted to, so it's important to remember two things when working with people who smoke or chew tobacco

- Smoking is an addiction (a craving that is very hard to change).
- It's hard to quit smoking.

When you use tobacco products, a chemical called nicotine quickly goes into your bloodstream. Cigarettes deliver more nicotine quicker than ever before. Within 10 seconds of entering your body, the nicotine reaches your brain. It causes the brain to release adrenaline, creating a buzz of pleasure and energy. Adrenaline makes your heart speed up and causes your arteries to become narrower. These two things put an extra strain on your heart, and your blood pressure can rise.

The buzz fades quickly though, and leaves you feeling tired, a little down, and wanting the buzz again. This feeling is what makes you light up the next cigarette. Since your body is able to build up a high tolerance to nicotine, you'll need to smoke more and more cigarettes in order to get the nicotine's pleasurable effects and prevent withdrawal symptoms.

This up and down cycle repeats over and over, leading to addiction. Addiction keeps people smoking even when they want to quit. Breaking addiction is harder for some people than others. Many people need more than one try in order to quit.

The toxic chemicals and carcinogens in tobacco smoke are the reason that

- On average, smokers die 10 years earlier than nonsmokers.
- Smoking causes more than 8 out of 10 (87%) of lung cancer deaths in men and 7 out of 10 (70%) in women.
- You have increased tobacco waste products in your blood that make the blood more likely to clot.
- You have damage in the lining of the blood vessels, making it easier for plaque to build up or cause a blood clot. This is a leading cause of heart attack and stroke because of damage to your arteries and blood clots that block blood flow, cause heart attacks and strokes.
- Smoking doubles a person's risk for stroke.
- Smoking cigarettes is the biggest risk factor for sudden death from a heart attack.
- Smoking tobacco increases the risk for many cancers in many organs in your body (including mouth, throat, voice box, esophagus, lung, blood, stomach, kidney, bladder, pancreas, cervix, ovary, stomach, colon, rectum, and uterus).

- Smoking by the mother during pregnancy causes many health problems such as premature birth, lung injury to the baby, stillbirth (death before birth), premature birth, low birth-weight babies, lung injury to the baby, premature birth, and sudden infant death syndrome (SIDS).
- Smoking can also affect men's sperm, which can reduce fertility and also increase risks for birth defects and miscarriage (loss of the baby).
- Cigarette smoking causes injury to the airways and lungs leading to chronic obstructive pulmonary disease (COPD) which includes both chronic bronchitis and emphysema. It also causes lung infections, and chronic coughing, wheezing, and asthma among children, teens, and adults.
- 9 out of 10 deaths for chronic obstructive disease are due to cigarette smoking.
- Smoking can affect bones. Older women who smoke have lower bone density (weaker bones) than women who never smoked and are at greater risk for broken bones.
- Smoking can cause gum disease and tooth loss. Smokeless tobacco may cause tooth decay in exposed tooth roots. It can also cause your gums to pull away from your teeth. If this happens, your gums will not grow back. Also, leathery white patches and red sores are common in dippers and chewers. Those patches and sores can turn into cancer.
- Smoking can increase your risk for cataracts, which is a clouding of the eye's lens that makes it hard for you to see. It also causes macular degeneration, which is damage to the retina, the part of the eye needed for central vision. This condition can lead to blindness.
- Smoking is a cause of type 2 diabetes and can make it harder to control your diabetes. Smokers have a 30-40% higher risk of developing diabetes than nonsmokers.
- Smoking causes general bad effects on the immune system and can cause inflammation of the blood vessels, which leads to heart disease.
- Smoking causes inflammation that result in rheumatoid arthritis in the small joints in your hands and feet.
- Cigarettes, cigars, pipes, and spit and other types of smokeless tobacco all cause cancer. There is no safe way to use tobacco.
- Smoking low-tar and low-nicotine cigarettes does not reduce your risk for cancer or heart disease.

Activity 14–1: How Smoking, Second Hand Smoke and Chewing Tobacco Can Harm you. Ask the CHWs which harmful effects of smoking would be the most likely to convince people to quit smoking. Would parents stop smoking if they knew how harmful it is to their kids? Review the handout with the CHWs.

B. Is It Harmful to Be Around Smoking?

► Talking Points:

Even if you don't smoke, you can develop smoking-related health problems if you are around other people who are smoking. The smoke you breathe in from other people's cigarettes, cigars, and pipes, is called secondhand smoke.

If you breathe in secondhand smoke, you have a greater risk of developing the diseases caused by smoking.

Nonsmokers should know of the dangers of secondhand smoke, especially if they have family members or friends who smoke. They may need help finding a way to ask others not to smoke around them or in their house or car.

Nonsmokers face many risks to their health from secondhand smoke.

- Secondhand smoke increases the risk of developing diseases linked with smoking.
- Secondhand smoke can cause lung cancer and heart disease. It makes blood stickier (more likely to clot), damages the lining of blood vessels, and increases the chance of heart attack and stroke.
- People who already have heart disease are at very high risk of suffering bad effects from breathing secondhand smoke and should take special care to avoid even a short exposure to smoke.

Your risk of developing a disease increases with the amount of smoke you breathe in.

The health risks of secondhand smoke for children are even greater than those for adults. Children of smokers have a greater chance of developing

- Colds.
- Bronchitis and pneumonia, especially in the first two years of life.
- Sudden infant death syndrome (SIDS).
- Constant coughs.
- Ear infections.

- Lung problems.
- Asthma attacks.

The more smoke children are exposed to, the more they are at risk of developing illnesses related to smoking.

When working with smokers who are **not** thinking about quitting, you can help educate them about the harm that secondhand smoke can do to their family members.

By helping smokers understand why they shouldn't smoke around others, you are helping create a more heart-healthy environment for everyone.

As a trusted member of the community and a community health worker, you are in a special position to pass on important information about the dangers of smoking, the importance of never starting to smoke, and the benefits of quitting if you do smoke.

► Talking Points:

Although nonsmokers who are exposed to secondhand smoke breathe less tobacco smoke than those who actually smoke, you can still inhale a large amount of smoke each day if you live with a heavy smoker.

When you help people in your community understand the dangers of secondhand smoke, they are more likely to insist on having smoke-free rooms and buildings.

Discussion: Avoiding Secondhand Smoke

Ask CHWs to come up with ideas on how to teach community members to decrease the dangers of secondhand smoke for themselves, if they are the ones exposed or for members of their family. Write their responses on a flipchart. Possible responses include

- Educating people about the dangers of smoking and secondhand smoke, so that they can quit smoking or can urge their family members or friends to quit smoking.
- Encouraging smokers to quit smoking.
- Encouraging people to make their homes nonsmoking homes.
- Encouraging smokers to smoke outdoors.
- Encouraging people to never smoke or allow anyone else to smoke around children.
- Encouraging smokers to smoke only when they do not expose others.
- Encouraging people to keep their cars smoke free.
- Encouraging people to make sure their workplace is smoke-free.
- Encouraging people to speak up when they feel uncomfortable around smokers.
- Encouraging people to make sure that their children's day care centers and schools are smoke-free.
- Encouraging people to go to restaurants and other businesses that are smoke-free and to thank the businesses for being smoke-free.
- Remind people who already have heart disease that they are at very high risk of suffering bad effects from breathing secondhand smoke and should take special care to avoid even a short exposure to smoke.

Activity 14–2: Role Play: How to Ask Someone to Not Smoke

Around You Hand out copies of the handout. Have the CHWs form groups of three. Explain that one person will play the role of a new mother, one the role of a smoker, and one the role of an observer. Give each group a few minutes to act out the scene. Then ask them to change roles. After each person has had a chance to play the role of the new mother, bring the entire group back together.

If there is time, you may ask for a small group to volunteer to act out the scene for the whole group. At the least, spend some time asking each person how it felt to be the new mother, how it felt to be the smoker, and what they saw as the observer. Encourage CHWs to act out this exercise with their clients in the community, giving their clients a chance to practice being assertive in a situation that is not comfortable for them.

C. The Benefits of Quitting Smoking

► Talking Points:

The long-term benefits are reducing your risks for diseases caused by smoking and improving your health in general.

- **Within 20 minutes:** your heart rate drops.
- **Within 12 hours:** Levels of carbon monoxide and nicotine in the body decrease. The heart and lungs begin to repair the damage caused by cigarettes.
- **Within three months:** Blood circulation improves. Breathing becomes easier. Walking becomes easier. The voice becomes less hoarse.
- **Within one year:** The risk of heart attack is cut in half. Coughing, sinus congestion, fatigue, and shortness of breath decrease.
- **Within 2 to 5 years:** Your risk for stroke could fall to about the same as a nonsmoker's
- **Within several (5 to 15) years:** Risks of heart disease and stroke are reduced almost to that of a nonsmoker. Your lung cancer risk is half that of a nonsmoker. Your risk of cancers of the mouth, throat, esophagus, bladder, kidney, and pancreas drops by half.

When you quit smoking, you will

- Live longer and live better.
- Lower your chance of having a heart attack, a stroke, cancer, and breathing problems.
- Improve your chances of having a healthy baby if you are pregnant.
- Improve the health of the people you live with, especially children and older people.
- Have extra money to spend on things other than cigarettes.
- The best result may be that you just feel better.

Many smokers are afraid they will gain weight if they quit smoking. Nicotine does keep you from getting hungry, and some ex-smokers may still have the urge to put something in their mouth—most likely food.

When people who quit smoking gain weight, it is often because they eat more after they quit. The benefits of saving your life by not smoking far outweigh the drawbacks of gaining a few pounds.

Some of the most important activities for avoiding weight gain include

- Make sure to eat fruits and vegetables, whole grains, and fish and food low in saturated and trans fats, and cholesterol.
- Become more active. You can walk more, take the stairs, garden, dance, and do other fun activities.
- Drink lots of water.
- Eat low-fat and low or sugar-free snacks.

► Talking Points:

Smoking is the most preventable cause of sickness and death. By sharing information about the benefits of not smoking, you can encourage people in your community to quit smoking and prevent further damage to their health.

Remind community members that

- It is never too late to improve your health.
- Quitting smoking is one of the best things you, if you are a smoker, can do for your health.
- It is best to never start smoking, but you can reduce or prevent serious damage your health if you quit smoking—the sooner, the better.

D. Helping People to Quit Smoking

► Talking Points:

As trusted members of the community, community health workers play a key role in helping people adopt healthier habits, such as not smoking. It is important for community health workers to understand how to share information about the dangers of smoking in a positive and supportive way.

When you talk to smokers and community groups about the dangers of smoking and the benefits of not smoking, remember that you should

- Understand that people smoke, and quit smoking, for different reasons.
- Be nonjudgmental, even if your clients choose not to quit smoking.
- Be a friend and offer support. Make it OK for smokers to contact you at a later date, when they have had time to think about your suggestions to quit smoking. By being nonjudgmental, you leave the door open for people to ask for help from you—when they are already to quit smoking or when they need other health information.

Discussion

Ask CHWs to consider this question: Why is it important to be nonjudgmental when you talk to smokers about not smoking?

Remind the CHWs to be patient when working with smokers. Nagging people about their smoking can make them become angry or defensive.

► Talking Points:

For people addicted to nicotine, quitting smoking is very hard. You should know that

- Quitting is not easy, but it is possible.
- Physical withdrawal symptoms are temporary, lasting only one or two weeks. When you stop smoking, your body has to adjust to not having nicotine in its system. For most people, withdrawal symptoms only last a few days to a few weeks. But cravings for cigarettes can last longer. Not everyone has symptoms of withdrawal, but it helps to be prepared.

Withdrawal is different for everyone. These symptoms—including cravings—will fade every day that a person stays smoke free

- Cravings for cigarettes.

- Feeling down or sad.
 - Having trouble sleeping.
 - Feeling irritable, on edge, grouchy.
 - Having trouble thinking clearly and concentrating.
 - Slower heart rate.
 - Headache.
 - Feeling more hungry or gaining weight.
- When people try to quit smoking, most go back to smoking within the first week after quitting, when the body is still dependent on nicotine.
 - Many go back to smoking within the first three months after quitting, during stressful times.
 - When people try to quit smoking, they usually quit several times before they are able to quit for good.

Share this information with the smokers you are working with, when the time is right.

As a first step in helping someone to stop smoking, ask 3 questions.

Activity 14–3: Are You Ready to Stop Smoking? Ask the CHWs to share their experiences in finding out if people are really ready to stop smoking. Review the questions on the handout with the CHWs.

- Do you want to stop smoking?
- Are you willing to make some changes in your daily routine that will help you stop smoking?
- Are you willing to deal with some discomfort while trying to stop smoking?

Explain to the CHWs that if the person answers “yes” to all three questions, then he or she is ready to take the steps to stop smoking.

► Talking Points:

It can be hard to get some people to quit smoking simply because you tell them how dangerous smoking is for the body. If a person feels OK at the time, it is easy to put off quitting.

Money is often a stronger motivator than health issues are. If someone you are trying to help stop smoking doesn't seem bothered about the health effects, try stressing how much smoking costs.

Activity 14–4: Do the Math

Ask the whole group how much an average pack of cigarettes costs.

Write on a flipchart the cost that most of the CHWs agree is average. With the entire group, multiply the cost by two to figure out how much a smoker spends on 2 packs of cigarettes a day.

Then multiply this number by 7 to see how much the smoker spends on cigarettes in a week. Then multiply this number by 4 to see how much the smoker spends a month. Then multiply this number by 12 to see how much a smoker spends in a year. Write these numbers on a flipchart.

Have CHWs form small groups of three or four. Ask each group to make a list of things other than cigarettes that a smoker can buy with the amounts of money spent on cigarettes in a day, in a week, in a month and in a year.

Have group members come back together to share their findings and ideas. If no one mentions health care costs savings, talk about the huge cost of smoking-related diseases.

This is an activity CHWs can do with their clients who smoke.

► Talking Points:

The next step might be to ask the person to think about the reasons he or she smokes.

- Tell smokers that knowing what leads them to smoke and keeps them smoking can help them change their smoking habits. Have the smoker make a list of the reasons that he or she smokes.
- Ask the person to look at his or her answers and think of ways to avoid a chance to smoke or to do something else when he or she wants a cigarette. By knowing the activities that trigger smoking (e.g., driving, talking on the phone, finishing a meal), they can begin to think of other things to do during those times.
- Encourage smokers to keep a diary of the times when they smoke. This will help them identify the times of the day when they smoke or the activities that lead to smoking.

Discussion: Reasons or Triggers For Why People Smoke

Everyone who smokes has smoking triggers. Knowing their triggers will help them stay in control. At first, they might want to avoid triggers all together. Ask the CHWs to think of reasons or triggers for why people smoke. Have someone write their answers on a flipchart. Cover all of the following possible answers

- Because friends and family members smoke.
- Because they are used to smoking while drinking coffee or alcohol.
- Because they are feeling down.
- Because they are feeling lonely.
- Because they are taking a work break.
- Because they are angry.
- Because they are upset.
- Because they are worried.
- Because they crave cigarettes and are addicted to nicotine.
- Because they smoke without being aware of it.

Discussion: Plan How to Handle Cravings

People won't be able to avoid all smoking triggers, so it's important for them to make a plan for how to handle cravings. Remember, cravings typically last 5 to 10 minutes. Advise people to plan ahead and come up with a list of short things they can do when they get a craving.

Ask the CHWs to talk about things they could suggest that smokers do to distract themselves.

- Call or text someone. You don't have to do this alone. Lean on the people you trust to distract you. Or call 1-877-44U-QUIT to talk to an expert (for free) about quitting smoking.
- Wait 15 minutes. Challenge yourself to read a magazine, listen to music, or play your favorite game for 15 minutes. Cravings only last a few minutes!
- Take a walk or run. Don't have time? Go up and down the stairs a few times. Physical activity, even in short bursts, can help boost your energy and beat a craving.
- Review your reason for quitting. Just one puff will feed your craving and make it stronger. Starve the craving by reminding yourself why you want to be smoke-free.
- Go to a smoke-free zone. Most public places don't allow smoking. Go to a movie, a store, or any other smoke-free public place where you're forced not to smoke.
- Figure-out your savings. Cigarettes are expensive. Add up all the money you're saving and decide what you're going to buy with it.
- Keep your mouth busy. Chew a stick of gum instead of a cigarette, or keep hard candy with you. Drinking water also works!
- Do something else. When a craving hits, stop what you're doing right away and do something else. Simply changing your routine can help you shake off a craving.
- Take deep breaths. Breathe through your craving by inhaling (through your nose) and exhaling (through your mouth). Repeat this 10 time or until you're feeling more relaxed.

Cravings will come and go. Remember, trying something to beat the urge to smoke is always better than not trying anything. Do what works best for you when a craving hits. Just don't smoke. Not even one puff!

► Talking Points:

Another way to help people quit smoking is to make a list of all the reasons to quit. When they feel the need to smoke ask them to read the list often before they quit and while they are trying to quit.

They can keep the list in a place where they will see it often, like their car or where they keep their cigarettes. The list can inspire them to stop smoking for good. Whatever their reasons, they will be amazed at all the ways their lives will improve when they become smoke free.

If people are having a hard time thinking of the positive benefits of not smoking, you might help by coaching them about reasons to quit.

Activity 14-5: Reasons to become Smoke Free

Ask the CHWs to talk about and share the reasons people in their community might want to become smoke free.

Suggest they consider the possible reasons related to health, appearance, lifestyle, and loved ones.

When they are finished, share the handout with them and let them find reasons they may not have covered.

► Talking Points:

If you are working with smokers who are committed to not smoking but are still having a hard time quitting, or who don't believe they can quit on their own, let them know there is hope—and help.

Discussion: Ways to Quit

Ask the CHWs if they or someone they are close to has ever tried to quit smoking. Ask them to share some of the ways that these people used to help them quit. Explain that there is no one right way to quit smoking. Ask for other suggestions for quitting smoking. Record all of their answers on a flipchart. Possible responses might be

- Cut down on the number of cigarettes you smoke.
- Don't smoke automatically. Do something else instead of smoking; for example, go for a walk, have a healthy snack, or wait for a while before you smoke.
- Pick a day to quit smoking totally “cold turkey,” or begin quitting by cutting down on the number of cigarettes you smoke.

- See yourself in various situations without a cigarette. This is a way to prepare yourself mentally for being a nonsmoker.
- Find a quitting partner.
- Make smoking harder; for example, stop carrying cigarettes.
- Replace old habits with new activities. If stress causes you to light up, try breathing deeply to calm down.
- Keep busy. Get involved in activities that require the use of your hands, such as beading, sewing, or a fix-up project around the house.
- Keep moving. Try going for a nature walk, working in the garden, doing stretching exercises, or practicing your favorite dance steps.
- Know what to expect. During the first week after quitting, a person may have headaches, or feel irritable, tired, or distracted.
- Throw away all cigarettes around the house.
- Get rid of the ashtrays and lighters.
- Drink lots of water, when there is an urge to smoke.
- Chew gum or suck on a sugarless mint or hard candy instead of smoking.
- Taking deep breaths.
- Meditate as a way of dealing with stress.
- Call a friend when there is an urge to smoke
- Encourage your friend or family member to keep trying to quit.
- Be positive. Let the person know you are proud of him or her for trying and that you appreciate the effort he or she is making.
- Don't judge the person, especially if he or she fails at first.
- Encourage the person to stop if he or she starts smoking again.
- Reward the person. Even a certificate of accomplishment is a good idea.
- Call or visit just to let the person know how proud you are of his or her efforts to quit smoking.

We get it, quitting is hard. But it works best when people get ready ahead of time. So, before a person quits, they need to **START by taking these 5 steps**

1. Set a Quit Date

Smokers should pick a date within the next two weeks to quit smoking. This will give them enough time to prepare. They should really think about their quit date. They should avoid setting a quit date they know will be hard to quit (like a night out with friends, or a stressful holiday).

2. Tell Family and Friends You Plan to Quit

Quitting smoking is easier when the people in your life support you. Smokers need to let others know when they are planning to quit. Explain how they can help you quit. We all need different things, so be sure to let friends and family know exactly how they can help.

3. Anticipate and Plan for Challenges While Quitting

The first few weeks after quitting, a lot of people may feel uncomfortable and will crave a cigarette. This is because of withdrawal. Withdrawal is when the body gets used to not having nicotine from cigarettes. Some of the more common feelings that come with withdrawal are

- Feeling a little depressed.
- Not being able to sleep.
- Getting cranky, frustrated, or mad.
- Feeling anxious, nervous, or restless.
- Having trouble thinking clearly.

People may be tempted to smoke to relieve these feelings. Just remember that they are temporary, no matter how powerful they feel at the time.

People can be triggered by specific persons, places, or activities that make them feel like smoking. It is important that people know their smoking triggers so they can learn to deal with them.

4. Remove Cigarettes and Other Tobacco From Your Home, Car, and Work

People will be tempted to smoke during their quit. Tell them to stay strong; they can do it! Removing things that remind them of smoking will help. These are tips they can use

- Throw away all your cigarettes and matches. Give or throw away lighters and ashtrays. Remember the ashtray and lighter in your car!

- Don't save one pack of cigarettes "just in case." Keeping one pack just makes it easier to start smoking again.
- Remove the smell of cigarettes from your life. Make things clean and fresh at work, in your car, and at home. Clean your curtains and clothes. Shampoo your car. You will be less tempted to light up if you don't smell smoke.
- Have your dentist clean your teeth to get rid of smoking stains. Your teeth will look amazing. When you quit smoking, they will always look that way.

5. Talk to Your Doctor or Pharmacist About Quit Options

It is hard to quit smoking on your own, but quitting "cold turkey" is not your only choice. Encourage people to talk to their doctor or pharmacist about other support options. Most doctors and pharmacists can answer their questions, give advice, and tell them where to get quit smoking help.

Quit smoking medicines are also an effective quit option. Many quit smoking medicines, especially Nicotine Replacement Therapy (NRT), are available without a prescription. This includes the nicotine patch, nicotine gum, or nicotine lozenge. Read the instructions before using any medicines. If you have questions about a medicine, ask your pharmacist.

If you are pregnant or planning to become pregnant, talk to your doctor before using any type of medicine. If you plan on using quit smoking medicines, remember to have them with you on your quit day. Visit the CDC medicines page to learn more. <http://www.cdc.gov/tobacco/campaign/tips/quit-smoking/guide/steps-to-prepare.html>

If you need help right away, you can talk to a quit smoking counselor by phone or online. Using quit programs such as SmokefreeTXT or calling a quit line.

Support groups and counseling are also available in most communities. By providing support to smokers, individual or group counseling can help them quit smoking.

Activity 14–6: Five Steps to Quitting Smoking Ask the CHWs to review the handout. Have them break into groups of two or three. Tell the CHWs to take turns having one person role play a smoker while the other is the CHW who is trying to convince the smoker to quit. The CHW should use the handouts to talk about the steps for quitting with the “smoker.”

Allow about 15 minutes for this activity. Afterwards, ask the CHWs if they found it hard to talk with the “smoker” about smoking and, if so, why it was hard.

Ask the CHWs how they would help smokers answer the following questions

- Why should I quit smoking?
- How do I quit?
- What if I smoke again after quitting?
- How will I feel after I quit, and what will the benefits be?

Share quitting tips with the smokers with whom you are working. Emphasize these tips

- Quitting is hard. Be proud of your accomplishments.
- Take quitting one day at a time.
- Set daily goals.
- If you give in to smoking, don’t give up on quitting.
- Often successful ex-smokers try to quit smoking several times before they are able to quit for good.

Review with the CHWs, tips from former smokers.

<http://www.cdc.gov/tobacco/campaign/tips/stories/tiffany.html>

E. What Community Health Workers Can Do to Help Smokers Quit and Stay Smoke Free

► Talking Points:

- Community health workers can help community members maintain a positive attitude while trying to quit smoking.
- Community health workers can teach community members about the dangers of tobacco use and secondhand smoke.
- Community health workers can help community members quit smoking, but they should realize that people decide to quit smoking for many different reasons. There is no “one size fits all” solution to quitting smoking.
- As community health workers, you can encourage and support smokers who want to quit smoking. And you can encourage those who do not succeed on the first, second, or even third try to keep trying until they do succeed.
- As community health workers, you may be the only ones who encourage a person to quit smoking.
- Community health workers can teach smokers the skills that will make their efforts to quit smoking successful.
- Community health workers can encourage people to ask for smoke-free day care, schools, workplaces, restaurants, businesses, and other community buildings.

F. A Word About Smokeless Tobacco

► Talking Points:

The two main types of smokeless tobacco in the United States are **chewing tobacco** (loose tobacco leaves) and **snuff** (finely ground tobacco). Users put the tobacco in their mouths, chew on it and spit out the tobacco juices, which is why smokeless tobacco is often called spit or spitting tobacco.

Smokeless tobacco is not as harmful to your blood vessels and heart as cigarettes and cigars are, but it IS dangerous to your health in other ways.

Smokeless tobacco should never be used to replace smoking. You would simply be trading one harmful habit for another. Chew tobacco has nicotine, and it is just as addictive as the nicotine in cigarettes.

Smokeless tobacco has been directly linked to cancer of the mouth, throat, tongue, windpipe, and larynx (voice box). It can also cause gum disease and tooth loss.

Activity 14–7: Lift the Lid on Chew Tobacco: Get the Truth

Ask the CHWs to quickly review the handout. Ask if they have any questions. Remind them that smokeless tobacco should never be used as a substitute for cigarettes or cigars.

G. Helping Parents Prevent Smoking**► Talking Points:**

Most parents don't expect their children to smoke. But children and teenagers are exposed to thousands of pictures that make smoking look glamorous. That's one of the reasons that about 28% of boys and 15% of girls use tobacco in high school, and more than 5% of girls and more than 7% of boys smoke in middle school use tobacco.

If a teenager is smoking or chewing tobacco, it will be up to him or her to quit. CHWs can help teens, the same ways they help other smokers quit smoking.

Here are some tips for parents

Avoid making threats. Find out why your child is smoking. The reason may be that he or she wants to be accepted by other preteens or teens, or that he or she wants your attention. Plus, the preteen and teenage years can be very hard and stressful.

Ask questions that will help you understand why your teen is smoking, but don't make him or her feel threatened or afraid to talk to you.

Are there changes that need to be made in your child's life to help him or her stop smoking?

What about others in the family? Are they smokers?

Never ask your children to bring your cigarettes or light a cigarette for you. If you smoke, quit.

It will be very hard for your child to quit if others in the home smoke. Keep your home and car smoke-free.

If you used to smoke and have already quit, talk to your child about your experience. Talk honestly about how hard it is to quit. Tell your child personal stories about problems you had when you smoked (for example, people asking you not to smoke in their house, or your teeth becoming stained and yellow).

Teens and preteens often believe they can quit smoking whenever they want, but most teens need help.

Tell your child to make a list of all the reasons why he or she wants to quit. Remind him or her to read the list when tempted to smoke. It is best to quit all at once “cold turkey.” Gradually reducing the number of cigarettes only delays the withdrawal symptoms.

Your job, as a parent, is to support your child’s attempt to quit. Both you and your teen will need to prepare for the mood swings and crankiness that can come with nicotine withdrawal. Offer your teen the “**5 D’s**” to get through the tough times

- **Delay.** The craving will go away with time.
- **Deep breath.** Take a few calming deep breaths.
- **Drink water.** It will flush out the chemicals.
- **Do something else.** Find a new, healthy habit to take the place of smoking.
- **Discuss.** Talk about your thoughts and feelings.

Finally, reward your teen when he or she quits. Plan something special for you to do together. Helping your child quit is one of the best parenting activities you could ever do.

Activity 14–8: What Can Communities Do to Prevent Tobacco Use?

Encouraging and helping people to not start smoking or to stop smoking is a very important step for the health of your community. But it is also very important to create an environment and policies that help people who want to quit smoking and that discourage people from smoking, especially in public places.

Ask the CHWs to talk about the suggestions in the handout. Are some of these things already happening in their communities? How can they help make changes?

Posttest Questions

Circle the letters for ALL the correct answers in the questions. A question may have more than one answer.

1. Smoking causes which of the following?

- a. Heart disease
- b. Stroke
- c. Heart attack
- d. Cancer
- e. Lung disease

2. What are good ways to get people to stop smoking?

- a. Nag them.
- b. Get them to go with you to smoke free events
- c. Give them tips and resources for staying smoke free.
- d. Only let them smoke in your yard.

3. What are the benefits of quitting smoking?

- a. Blood pressure will go down.
- b. Hair will grow longer.
- c. Reduce risk for heart disease, heart attack, and stroke.
- d. Save money.

4. Which of the following statements about high blood pressure is FALSE?

- a. Secondhand smoke is not a problem
- b. Secondhand smoke will not hurt people with heart disease.
- c. Secondhand smoke can trigger asthma attacks.

Correct Answers to Posttest Questions

1. a,b,c,d,e

2. b,c

3. a,c,d

4. a,b

How Smoking, Second Hand Smoke and Chewing Tobacco Can Harm You

Activity 14-1

Smoking cigarettes and chewing tobacco causes

- Early death
 - On average smokers die 10 years earlier than nonsmokers do.
- Heart disease, heart attack, and stroke
 - Smoking puts extra strain on your heart and raises your blood pressure.

- Smoking is a major cause of disease of blood vessels inside and outside the heart. Smoking damages the cells lining your blood vessels and heart, and leads to the build up of plaque that hardens and narrows your arteries.

- Smoking increases the risk of dangerous blood clots that cause heart attacks and strokes.

- Smoking low-tar and low-nicotine cigarettes rather than regular cigarettes does not reduce your risk for heart disease or other diseases.

- Even chewing and spit tobacco can lead to heart and blood vessel disease.

- People who already have heart disease are at very high risk of suffering bad effects from breathing secondhand smoke and should take special care to avoid even brief exposure to smoke.



46.6M

About 1 in 5 adults smoke.

40%

4 out of 10 nonsmokers (88 million people) are exposed to secondhand smoke.

54%

More than 1 out of 2 kids (aged 3–11 years) are exposed to secondhand smoke.

Smoking and secondhand smoke causes

- Cancer in many organs of the body.
- Serious lung damage and diseases, such as emphysema and chronic obstructive pulmonary disease (COPD).
- More colds, sore throats, and lung infections like bronchitis.
- Chronic coughing, wheezing, and asthma attacks, among children, teens, and adults.
- Ear infections in children.
- Weaker bones in older women.
- Gum and tooth loss.
- Cataracts in the eyes.
- Type 2 diabetes.
- Rheumatoid arthritis in feet and hands.
- Changes in men's sperm that can lead to reduced fertility of men and increased risk for birth defects and miscarriage.
- Babies that weigh less and have a greater risk of death and disease.
- Poor overall health

When you quit smoking, you will

- Live longer and live and feel better.
- Lower your chance of having a heart attack, a stroke, cancer, and breathing problems.
- Improve your chances of having a healthy baby if you are pregnant.
- Improve the health of the people you live with, especially children and older people.
- Have extra money to spend on things other than cigarettes.

See more at

<http://www.cdc.gov/vitalsigns/pdf/2010-09-vitalsigns.pdf>



Role Play: How to Ask Someone to Not Smoke Around You

Activity 14–2

Let's try role playing. Some people have a hard time telling smokers not to smoke around them or around their children. This activity will let you practice what you say when someone smokes around you or your family.

Marla is on a bus with her new baby. She is on her way to visit a friend. It is a warm spring day, and many people on the bus are lowering the windows. Marla feels hot sitting in a crowded spot with her bundled baby on her lap.

A man standing next to her seat pulls out a pack of cigarettes. He takes a cigarette out of the pack and lights it. "No Smoking" signs are posted throughout the bus. The man holds the lighted cigarette out of the sight of the bus driver.

The smoke seems to be drifting right over Marla's baby, and it is burning Marla's eyes. Along with the heat, the smoke makes her feel dizzy. Marla can't move to another part of the bus because there are no empty seats.



Are You Ready to Stop Smoking?

Activity 14–3

Do you want to stop smoking?

Yes

No

Are you willing to make some changes in your daily routine that will help you stop smoking?

Yes

No

Are you willing to deal with some discomfort while trying to stop smoking?

Yes

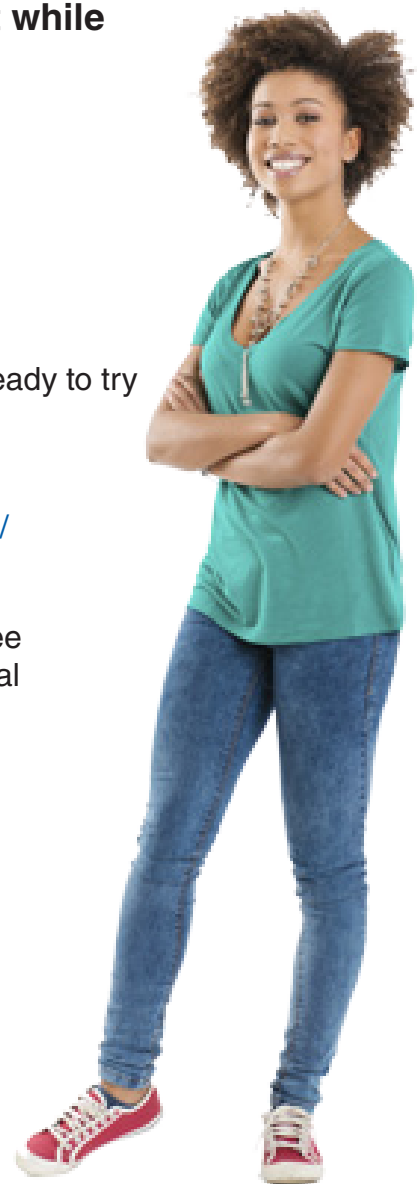
No

If you answer “yes” to all the questions above, you are ready to try to stop smoking!

To print a no smoking contract go to:

http://www.heart.org/idc/groups/heart-public/@wcm/@fc/documents/downloadable/ucm_304622.pdf

For support in quitting, including free quit coaching, a free quit plan, free educational materials, and referrals to local resources, call 1-800-QUIT-NOW (1-800-784-8669).



Do the Math

Activity 14-4

1. Price of a pack of cigarettes _____
2. Number of packs of cigarettes smoked each day _____
3. Multiply the price per pack times the number of packs smoked per day _____
= the cost per day _____
4. Multiply the cost per day times 7 = the cost per week _____
5. Multiply the cost per week times 4 = the cost per month _____
6. Multiply the cost per month times 12 = the cost per year _____

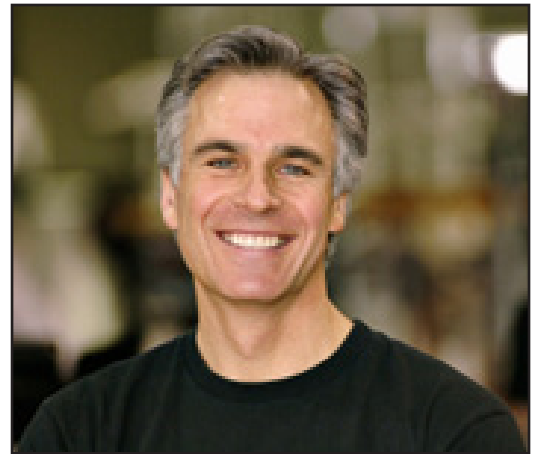
Saving money is one good reason to quit smoking!

What could smokers buy if they stopped smoking?



Your Health and Appearance

- My chances of having cancer, heart attacks, heart disease, stroke, cataracts, and other diseases will go down.
- I will be less likely to get sick.
- I will breathe easier and cough less.
- My blood pressure will go down.
- My skin will look healthier, and I will look more youthful.
- My teeth and fingernails will not be stained.



Although quitting will make you feel better and improve your health, there are other reasons to quit that you may not have thought about

Your Lifestyle

- I will have more money to spend.
- I can spend more time with family, catch up on work, or dive into my favorite hobby.
- I won't have to worry about when I can smoke next or where I can or can't smoke.
- My food will taste better.
- My clothes will smell better.
- My car, home, and kids won't smell like smoke.
- I will be able to smell food, flowers, and other things better.



Your Loved Ones

- I will set a great example for my kids. It takes a lot of strength to quit.
- My friends, family, co-workers, and other loved ones will be proud of me.
- I will protect my friends and family from the dangers of secondhand smoke.
- My children will be healthier.
- I will have more energy to do the things I love with friends and family.
- I will get healthy to make sure I am around to share in my family's special moments.



Five Steps To Quit Smoking

Activity 14–6

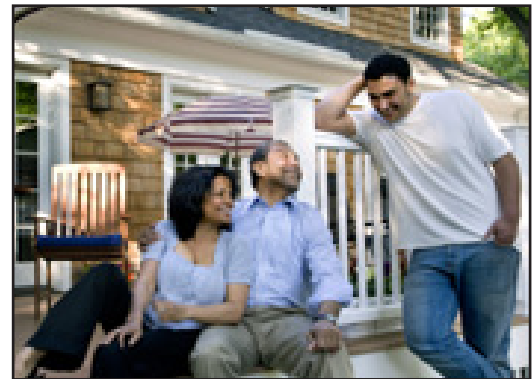
Quitting smoking is one of the most important things you will ever do.

Cigarette smoke contains more than 7,000 chemicals, **and 200 of these are poisonous.**

1. Set a Quit Date

- Set a quit date, within the next 2 weeks.
- Review your past attempts to quit. Think about what worked and what did not. You might decide to use a quit program like [SmokefreeTXT](#), or a quitline like 1–800–QUIT–NOW (1–800–784–8669), to get started. If you're not sure exactly which quit methods are right for you, visit the Quit Smoking Methods Explorer to learn more.
- Once you quit, don't smoke—NOT EVEN A PUFF!
For specific steps to take on your quit day, see tips at:
<http://www.cdc.gov/tobacco/campaign/tips/quit-smoking/guide/steps-on-quit-day.html>

- ## 2. Tell Family and Friends You Plan to Quit.
- Quitting smoking is easier when the people in your life support you. Smokers need to let others know when they are planning to quit. We all need different things, so be sure you let friends and family know exactly how they can help. Ask them not to smoke around you or leave cigarettes out. Don't let anyone smoke in your home.



3. Anticipate and Plan for Challenges While Quitting

The first few weeks after quitting, a lot of people may feel uncomfortable and will crave a cigarette. This is because of withdrawal. Withdrawal is when the body gets used to not having nicotine from cigarettes. Try to distract yourself from urges to smoke.

Talk to someone, go for a walk, or get busy with a task.

- Change your routine. Use a different route to work. Drink tea instead of coffee.
- Do something to reduce your stress. Listen to music, talk to your friends, or walk.
- Plan something enjoyable to do every day.

4. Remove Cigarettes and Other Tobacco From Your Home, Car, and Work

Stay strong; you can do it! Remove things that reminds you of smoking will help.

- Throw away all your cigarettes and matches. Give or throw away lighters and ashtrays. Remember the ashtray and lighter in your car!
- Don't save one pack of cigarettes "just in case." Keeping one pack just makes it easier to start smoking again.
- Remove the smell of cigarettes from your life. Make things clean and fresh at work, in your car, and at home. Clean your curtains and clothes. Shampoo your car. You will be less tempted to light up if you don't smell smoke.
- Have your dentist clean your teeth to get rid of smoking stains. Your teeth will look amazing. When you quit smoking, they will always look that way.

5. Talk to Your Doctor or Pharmacist About Quit Option add pic of person talking to doctor or pharmacist

It is hard to quit smoking on your own, but quitting "cold turkey" is not your only choice. Talk to your doctor or pharmacist about other support options. They can tell you where to get help.

Quit smoking medicines are also an effective quit option. You can get many quit smoking medicines without a prescription. This includes the nicotine patch, nicotine gum, or nicotine lozenge. Read the instructions before using any medicines. If you have questions about a medicine, ask your pharmacist.

If you are pregnant or planning to become pregnant, talk to your doctor before using any type of medicine. If you plan on using quit smoking medicines, remember to have them with you on your quit day.

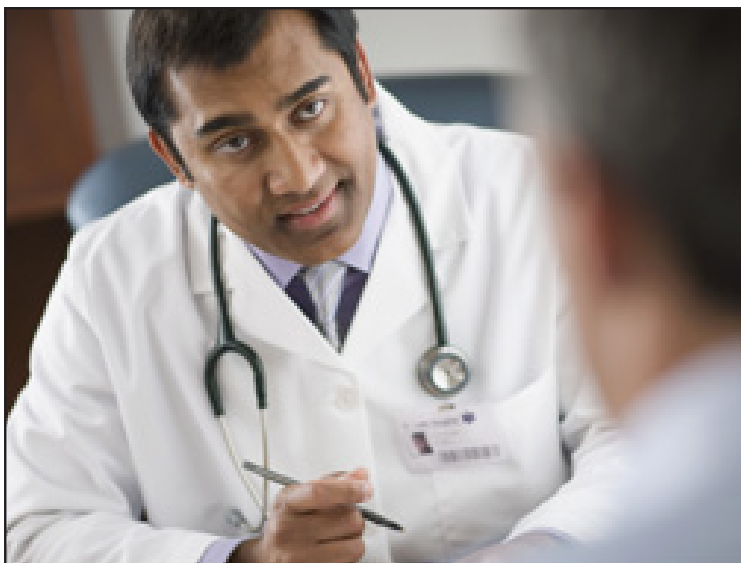
Visit the CDC page to learn more.

<http://www.cdc.gov/tobacco/campaign/tips/quit-smoking/guide/steps-to-prepare.html>

Support groups and counseling are also available in most communities. By providing support to smokers, individual or group counseling they can help you quit smoking.

Be prepared if you slip

Be kind to yourself. Remind yourself of the reasons you want to quit. Try again.



Lift the Lid on Chew Tobacco: Get the Truth

Activity 14–7

What is chew tobacco? The two main types of smokeless tobacco in the United States are chewing tobacco (loose tobacco leaves) and snuff (finely ground tobacco). Users put the tobacco in their mouths, chew on it, and spit out the tobacco juices, which is why smokeless tobacco is often called spit or spitting tobacco.

Smokeless tobacco is the term used by the tobacco industry. It makes these products sound safe; but they aren't.

Getting “hooked.” People get hooked before they know the facts about chewing tobacco. They don't know that chew tobacco

- Causes cancer.
- Contains nicotine (an addictive drug).
- Harms the body, including the heart.
- Is not a safe alternative to cigarettes.
- Makes it more likely that teens who use it will become cigarette smokers.
- Is costly.
- Can ruin your social life (because of stained teeth, bad breath, and smelly clothes).

Chew tobacco is not safe. There are no benefits of chewing tobacco. Here are some of the dangers

- Sugar in chew tobacco may cause decay in exposed tooth roots.
- Chew tobacco can cause your gums to pull away from your teeth in the place in your mouth where you hold the tobacco. The gums do not grow back.
- Leathery white patches, called leukoplakia (loo-ko-play-kia), and red sores are common in people who chew tobacco. These sores can turn into cancer.



Some Alternatives to Chew or Snuff Tobacco

Sugarless Gum

It can keep your mouth moist and active without the risk of chew tobacco.

Healthy Snacks

Fruit and vegetable sticks can also be substitutes for chew tobacco. They are tasty and good for you, too.

Physical Activity

It can reduce stress and renew energy. Try the activities you like, such as walking, swimming, running, or playing a sport.

Some ideas for quitting

- **Write down your reasons for quitting.** Put them in a place where you can see them. Write down the things you will buy with the money you saved. Pick a quit date.
- **Choose a method for quitting.** Talk to your doctor, dentist, counselor, or coach, about possible quitting methods.
- **Seek support from your friends.** Avoid “hanging out” in places where chew tobacco is used. If your friends use chew tobacco, consider quitting together as a group.

If you haven't started, why take the risk? If you have started, why not quit?



What Can Communities Do to Prevent Tobacco Use?

Activity 14–8

- Work together with schools, health professionals, and community members and organizations to support education of children in grades K–12. These people and organizations can help young people develop the skills they need to avoid tobacco use.
- Support “tobacco-free environment” policies in schools. These policies prohibit cigarette, cigar, and pipe smoking and the use of smokeless tobacco by students, teachers, staff, and visitors.
- Support policies that do not allow tobacco use in school buildings, on school grounds, in school buses or other vehicles used to transport students, and at off-campus school-sponsored events.
- Support tobacco-free environments and laws that do not allow smoking in restaurants and other public places.
- Encourage employers to not allow smoking indoors.
- Encourage employers to offer programs for workers who want to quit smoking.
- Make sure health care providers encourage nonsmokers not to start smoking and encourage smokers to quit.
- Make sure health insurance plans and managed care organizations (HMOs) cover smoking cessation services as part of their benefits.
- Control the sale of tobacco products to children, preteens, and teens.



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Objectives

By the end of this session, community health workers will be able to

- Explain why heart disease prevention begins in childhood.
- Share resources with parents.
- Explain when to have a child's cholesterol levels checked.
- Explain when to have a child's blood pressure checked.
- Explain how kids with Type 2 diabetes can stay healthy.
- Explain why it is important that children and teens keep a normal weight.
- Describe the types of foods kids should be eating and the types that should be limited.
- Describe the types of physical activity that kids and parents can do together.
- Describe how parents can help their children and teens to not start smoking and to quit smoking.

Activities

- 15–1: Blood Cholesterol Levels in Children
- 15–2: Children and Teens BMI
- 15–3A: Tips for Health Eating for Children and Teens
3B: Food Servings Guide for Children and Teens
- 15–4: GO, SLOW, and WHOA Foods
- 15–5: Tips for Healthy Living for Children Age 2 Years and Older
- 15–6: What Kids Should Know about Tobacco
- 15–7: What Parents Should Know about Keeping Kids Smoke-Free

Chapter Outline

- A. Prevention Begins in Childhood
- B. Health Resources for Parents
- C. Cholesterol
- D. Blood Pressure
- E. Diabetes
- F. At Risk for Overweight
- G. Healthy Eating
- H. Physical Activity
- I. Tobacco Control

Pretest Questions

Circle the letters for ALL the correct answers in the questions.
A question may have more than one answer.

1. Which of the following can lead to high blood pressure in children and teens?

- a. Eating too many salty foods.
- b. Sleeping too much.
- c. Weighing more than normal.

2. Which of the following are related to overweight and obesity in children and teens?

- a. Eating large amounts of food that are high in fat, sodium, and sugar and drinking too many sugary drinks.
- b. Type 2 diabetes
- c. High blood cholesterol
- d. Sitting and playing computer games for a long time each day instead of being physically active.

3. Children and Teens Should

- a. Be physically active at least 30 minutes a day.
- b. Be physically active at least 60 minutes a day.

A. Prevention Begins in Childhood

► Talking Points

In earlier sessions, we have focused on adults, but preventing heart disease should begin in childhood.

It's much easier to start healthy lifestyle habits in childhood, and the habits we start early are more likely to stay with us throughout our lives. Another important reason to start heart disease prevention in childhood is that this disease begins in childhood.

We need to focus on preventing of heart disease in younger children so that they don't develop it as adults.

Healthy habits aren't only for adults. They're just as important for children!

► Talking Points

Science shows that high blood cholesterol levels in childhood may lead to developing atherosclerosis later in life.

Atherosclerosis is the build-up of plaque on the artery walls, which reduces the blood flow through the arteries and makes the artery walls stiff and less flexible.

As we know from earlier sessions, this condition leads to heart disease, heart attack, and stroke.

To prevent atherosclerosis from developing, children and teens should

- Not use tobacco.
- Be physically active at least 60 minutes every day.
- Eat several servings of fruit and vegetables each day and a variety of other foods low in saturated fat, trans fats, and cholesterol.
- Avoid becoming overweight.
- Get their cholesterol levels checked every year beginning at age two, depending on family history or other conditions.
- Get their blood pressure checked every year beginning at age three.
- Be tested for diabetes if they are overweight and their family has a history of diabetes.

B. Health Resources for Parents

► Talking Points

Some parents may not have their children tested for diabetes and high cholesterol because they think they can't afford a doctor's visit.

But, Medicaid is available in every state to provide health and dental services for children under age 19 with low family incomes.

See <http://www.insurekidsnow.gov/medicaid/index.html>

Also, every state has a health insurance program, called the Children's Health Insurance Program (CHIP), for infants, children, and teens. CHIP provides health coverage to nearly eight million children in families with incomes too high to qualify for Medicaid but can't afford private coverage. Medicaid and CHIP typically cover a range of benefits including

- Doctor Visits.
- Emergency Care.
- Hospital Care.
- Immunizations.
- Prescription Drugs.
- Vision.
- Hearing.
- Dental.

To get started, parents can make a free call to 1-877 KIDS NOW (1-877-543-7669). When they call the free and confidential hotline, they will be connected directly to someone from their state who will help them apply. Families will need to complete an application and provide some documents. Depending on the state, they can do the application through the mail, over the phone, or even online.

CHIP <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Childrens-Health-Insurance-Program-CHIP/Childrens-Health-Insurance-Program-CHIP.html>

C. Cholesterol

► Talking Points

Abnormal cholesterol levels show up in 1 out of 5 U.S. children and teens.

Starting at age two, children should have their cholesterol levels checked if

- There is a family history of heart disease or stroke, such as a grandparent, aunt, uncle, or parent who has had a heart attack or stroke or who has heart failure or atrial fibrillation, especially if this person developed the problem before the age of 55.
- A parent has high blood cholesterol (240 mg/dl or higher).
- The child is overweight, has diabetes, or has high blood pressure.

► Talking Points

There is increasing evidence that the build-up of plaque in the arteries of children and teenagers is linked to high cholesterol levels. Because there are no outward signs of this build-up, most people won't be aware of it until they have a heart attack or stroke as adults.

The best way to avoid heart disease later in life is stop it before it begins in children. Families will be healthy if they prepare and eat foods that are low in saturated fat, trans fat, cholesterol, sodium, and sugar. It's important to eat more fruits and vegetables, low-fat dairy products, whole-grain and high fiber breads and cereals, and lean meats, chicken and fish (not fried), beans and lentils.

By eating healthy foods, not smoking, being physically active and keeping a healthy body weight, children and teenagers can delay or prevent heart disease later in life.

Activity 15–1: Blood Cholesterol Levels in Children Have the CHWs review the cholesterol levels for children listed on the handout. Write the adult cholesterol numbers on a flipchart so they can see how close normal cholesterol levels are for children, teens, and adults.

D. Blood Pressure

► Talking Points

Children's blood pressure should be measured starting at age three during a visit to the doctor, a school nurse, or a local clinic. Blood pressure should be measured with a child-sized blood pressure cuff, not an adult-sized cuff.

Normal blood pressure levels for a child are based on the child's gender (male or female), age, and height. If a child's numbers are higher than normal, the doctor will prescribe some type of treatment, starting with lifestyle changes, such as healthy eating and increased physical activity.

► Talking Points

Increasing body weight, larger waistlines, and eating excess sodium in foods are related to higher blood pressure in children ages 8-17. High blood pressure often occurs with other risk factors for heart disease. If a child has high blood pressure, his or her blood cholesterol levels and blood sugar levels should be checked.

E. Diabetes

► Talking Points

Type 2 diabetes was once rare in children, but now it's becoming more common.

Type 2 diabetes in children can go undiagnosed (not found) for a long time because children may have no signs or only mild signs. A blood test is needed to diagnose (find out if child has) diabetes.

Children and teens diagnosed with type 2 diabetes generally are between 10 and 19 years old, are overweight, and have family members who have type 2 diabetes.

If a child has family members with type 2 diabetes and is overweight, the doctor should have him or her tested for diabetes. Children who develop type 2 diabetes and do not keep their blood sugar levels under control are at serious risk for having heart and kidney disease, heart attack, stroke, foot amputations, blindness, and other problems in their mid-to-late 20s.

Most often, type 2 diabetes in children is a lifestyle disease—the result of too much high-calorie junk food and too many sugary drinks, not being physically active, and being overweight.

► Talking Points

If children have diabetes, it is important that they eat the right foods, check their blood glucose regularly, and take all diabetes medicines as prescribed by their doctor.

Family support is very important because diabetes is stressful for both children and their families. Parents should be alert for signs of depression or eating problems in their child. If there is any sign of either, the child must see a doctor.

Also, parents should talk to their children about how important it is to avoid smoking, alcohol, and other drugs because each of these things can have very serious effects on people with diabetes.

A team that includes doctors, nurses, diabetes educators, and nutritionists, and CHWs can help parents and other family members or caregivers help the child understand and manage his or her diabetes.

Remember, type 2 diabetes doesn't have to happen to children. In most cases, it can be prevented or delayed by a family's commitment to healthy eating and physical activity.

Discussion: Tips for Kids with Type 2 Diabetes

Ask the CHWs to think about the families they know who have kids with Type 2 diabetes. What do people in the community know about Type 2 diabetes in children? Do parents take their kids diabetes seriously? What has been their experience? Do parents know that lifestyle changes help kids with pre-diabetes or Type 2 diabetes?

Review the tips sheets with the CHWs. These tip sheets are from the National Diabetes Education Program. They are helpful for CHWs, parents, and children with type 2 diabetes. It's important that children know that diabetes can be controlled, and it's important that they know that it must be controlled.

You can view or download the Tip Sheets

<http://ndep.nih.gov/media/tips-kids-what-is-diabetes.pdf>

http://ndep.nih.gov/media/NDEP98_TipsKidsLowerRisk_bw_508.pdf

<http://ndep.nih.gov/media/tips-kids-be-active.pdf>

<http://ndep.nih.gov/media/tips-kids-eating-healthy.pdf>

Helping the Student with Diabetes Succeed: A Guide for School Personnel

Are kids having trouble managing their diabetes while at school? Remind the CHWs about a resource guide called Helping the Student with Diabetes Succeed: A Guide for School Personnel. It helps students with diabetes, their health care team, school staff, and parents work together to provide the best diabetes management in schools. View or download the guide from the National Diabetes Education Program.

<http://ndep.nih.gov/publications/PublicationDetail.aspx?PubId=97#main>

F. At Risk for Overweight

► Talking Points

Did you know that

- Childhood obesity rates remain high. Overall, obesity among our nation's young people aged 2 to 19 years remains at about 17 percent.
- Overweight and obesity are most common among African American, Hispanic and Native American and Alaska Native children and teens.

Overweight and obesity is the result of an energy imbalance.

When you are taking in more energy, or calories, than you are burning the result is weight gain.

Extra pounds affect a child's health just as they do an adult's health.

Compared with children who have a normal weight, children who are overweight or obese are much more likely to have high blood pressure, high blood cholesterol, and diabetes as young adults. Same as adults, they are at greater risk for heart disease, heart attack, and stroke.

Ask

When is a child overweight?

► Talking Points

In an earlier session, we talked about body mass index, or BMI, as a way to find out if a person is overweight. BMI is a number figured-out from a child's weight and height.

Because children are still growing, we can use growth charts for boys and for girls, based on age, to find their BMIs. This gives a related BMI-for-age percentile which shows how a child's weight compares to that of other children of the same age and sex.

For example, a BMI for-age percentile of 85 means that the child's weight is greater than that of 85 percent of other children of the same age and sex.

Parents should ask their children's doctor what a healthy weight range is for their child. A high BMI percentile (85% or higher) points to the need for follow-up by the doctor.

Activity 15–2: Children and Teens BMI Show the CHWs how to use the Centers for Disease Control and Prevention’s online BMI calculators for children and teens. You can find it at <http://apps.nccd.cdc.gov/dnpabmi/>. The CHWs might enter the numbers for their own kids or you can give them numbers for kids they can use. Explain the weight chart on the handout.

If CHWs or parents use the program, ask them to share the results with the child’s doctor. To find out if a child is overweight, parents should talk to the doctor.

► Talking Points

A healthy lifestyle, including healthy eating and physical activity, can lower the risk of becoming overweight and developing related risks and diseases.

Remember, overweight children have a hard time because they may not be able to keep up with other children when physically active. Also, others may tease them about their weight.

Preteens and teens especially tend to worry that their bodies aren’t like those of the girls and boys they see on TV, in magazines, or online. TV shows, magazines, and online videos for preteens and teenagers often send the message that you must be thin to be appealing and popular.

A very low BMI, in children and teens, is also a signal for parents to talk to the doctor because a child or teen may be sick or have different kinds of eating problems that can be harmful to the heart. To learn more about these kinds of eating problems you can find information at these Web sites

www.aacap.org/cs/root/facts_for_families/teenagers_with_eating_disorders

www.brightfutures.org/mentalhealth/pdf/bridges/eat_disorder.pdf

Never let anyone make fun of an underweight or overweight child or teenager, and don’t single out those who are underweight or overweight. Be sensitive to the feelings and needs of these children.

CHWs can suggest activities that overweight children and teens can enjoy and can do successfully.

Help families make a healthy lifestyle a family project.

One way to help families and communities live healthier lives is to promote healthy lifestyles at home, school, and in the community.

Parents can ask that schools have daily physical education classes, taught by qualified PE teachers, and that healthy food and drinks are put in vending machines and in the cafeteria.

Also, parents can take their children less often to fast-food places and can choose healthier foods and smaller amounts of food and drink if they do go.

Parents can limit “value” or “monster” meals, which may contain more food than the family needs. Encourage parents to say: “no” to fried foods, desserts, chips and other salty snacks, and soft drinks.

Children who often eat in restaurants, including fast-food restaurants, are more likely to become overweight and to have risk factors for heart disease and diabetes.

G. Healthy Eating

► Talking Points

When community health workers work in clinics, visit clients at home, or see them at other places in the community, they often see or work with entire families.

If you see children who are overweight, very inactive, or eating unhealthy foods and drinking sugary drinks, take action by asking questions about the children’s eating habits and physical activity levels. Let the families know about places where their children can safely play actively and how the whole family can eat better.

These are good questions to ask parents about their children’s eating habits

- Tell me what your child usually eats.
- What does your child usually drink with meals and when thirsty?
- Does your child drink soda?
- How much soda does he or she drink every day?
- What kind of milk does your child drink (for example, fat-free or low-fat), and how much does he or she drink each day?
- How much fruit and vegetables does he or she eat every day?

Many of the unhealthy habits that lead to heart disease are habits we formed as children, especially the food choices we made.

Parents can make a big difference in their children’s eating habits. Children look up to them as role models and copy their behavior. If parents make good food choices and stay physically active, their children are more likely to do the same.

Today, many children as young as age two drink soft drinks (soda or pop) or sport drinks regularly. These drinks have little nutritional value and are loaded with calories. The average can of soda has more than 200 calories.

Parents should give their children water or low-fat and fat-free milk, and 100 percent fruit juice (in small amounts) to drink instead of soft drinks.

Children need to drink at least two glasses of milk a day to build strong bones. Children younger than age 2 should drink whole milk. But children aged 2 years and older should not drink whole milk because of the high amount of fat it contains. Low-fat (1%) milk and fat-free milk have all the nutrients of whole milk without the fat.

Today in the United States, children aren't eating the foods that will help them stay healthy and be free of heart disease as adults. Many children are eating too much food that has low nutritional value, but has plenty of added fat, sodium, and sugar; such as, cookies, cake, pies, doughnuts, cupcakes, chips, French fries, and pizza.

Children should eat

- a variety of fruits, vegetables, whole grain cereals and breads, and low-fat dairy products as well as fish, chicken, and lean meats, lentils, and beans. Parents should replace high-fat snacks and sugary desserts with healthier choices such as fruits and vegetables.
- Reasonably-sized portions of food for their age.

Activity 15–3 A: Tips for Health Eating for Children and Teens

Explain that most children in the United States, including preschoolers, eat too much trans fat, saturated fat, and cholesterol, and too few fruits and vegetables. Nearly half of all teens eat more than the recommended amount of saturated fat each day. Making even simple changes in a child's or teen's diet can make a difference in lowering cholesterol levels and an even bigger difference in lowering their risk of heart disease.

Ask the CHWs to talk about their experience with food portions served to kids in their communities. How can they advise people about serving kids portion sizes that are best? Remind them that kids who are more physically active will need more food than kids who are not.

Have the CHWs find great ideas, activities, videos, and colorful posters for use with kids online

<http://www.choosemyplate.gov/kids/index.html>

<http://www.fns.usda.gov/sites/default/files/MyPlateAtHome.pdf>

To find out the best number of fruits and veggies for kids go to www.fruitsandveggiesmatter.gov

Here are examples of healthy and easy-to-prepare treats

- A medium-size apple
- A medium-size banana
- 1 cup blueberries
- 1 cup grapes
- 1 cup carrots, broccoli, or bell peppers with 2 tbsp. hummus

CHWs and parents can look for ways to make favorite dishes healthier. The recipes that they may make often, and that their families enjoy, with just a few changes can be healthier and just as satisfying. For healthy ideas on smart substitutions on recipes, snacks, high-fat items and fast food restaurants go to

http://www.heart.org/HEARTORG/GettingHealthy/NutritionCenter/HealthyCooking/Smart-Substitutions_UCM_302052_Article.jsp

Activity 15–3 B: Food Servings Guide for Children and Teens

Ask the CHWs to talk about the portion sizes of food for kids in their communities. Have them review the chart. What is their reaction? Have them take turns role playing being a parent and a CHW who is trying to explain portion sizes to the parents of an overweight kid.

Discussion: How Can Parents Get Children to Eat in a More Healthy Way? Ask CHWS for their ideas. What might work in their communities?

Possible answers could include

- Get young children started on eating fruits and vegetables.
- Drink water instead of sugary or sports drinks.
- Offer a variety of healthy food choices.
- Let children shop for and help prepare vegetables.
- Let child grow vegetables in a small garden.
- Serve vegetables raw with a low-fat dip.
- Be good role models by showing your children how you enjoy eating vegetables and fruits.
- Put a bowl of fruit on the kitchen table for a healthy snack, and have the family agree not to have chips and other high-calorie food for snacks.
- Pack lunches with nutritious foods, such as baby carrots, grape tomatoes, and low-fat string cheese.
- Choose store checkout lines without a candy display.
- Limit the amount of “junk food” (high-calorie, high-sodium, high-fat, and high-sugar food) in the house.
- Allow children to serve themselves food; doing so can help children who overeat when served large portions.
- Eat smaller portions of food at home and at restaurants. For example, or order a medium pizza for the family instead of a large one. Everyone will get the same number of slices as before, but the slices will be smaller.
- Instead of giving a child an entire bottle of fruit juice or soda, pour a small amount (1/2 cup) into a cup.
- Have family meals together.
- Don't give children food as a reward.
- Have children eat a good breakfast.
- Tell children that eating healthful food and drinking healthful drinks, such as milk and water, will make their bodies healthy and will help them look and feel their best.

Ask the CHWs to check out more ideas at this website

<http://www.fns.usda.gov/sites/default/files/MyPlateAtHome.pdf>

Activity 15–4: GO, SLOW, and WHOA Foods Chart The chart lists foods that can be eaten almost anytime, foods that should be eaten sometimes, and those that should be eaten only once in a while. It is from the We Can! We Can! stands for Ways to Enhance Children’s Activity and Nutrition. It’s a program that helps children 8 to 13 years old stay at a healthy weight through better food choices, increased physical activity, and reduced time watching TV and playing computer games. You can find more about the We Can! at

<http://www.nhlbi.nih.gov/health/public/heart/obesity/wecan/>

Ask the CHWs to review the chart. The chart is at

<https://www.nhlbi.nih.gov/health/public/heart/obesity/wecan/downloads/urwhateat.pdf>

Ask them to talk about other Go, Slow, and WHOA foods and drinks for children and teens in their communities. What could they suggest as good GO foods?

► Talking Points

We’ve already talked about how healthy eating habits that help prevent heart disease and strokes are formed in childhood, but how early should parents begin to be concerned about what their children are eating and drinking? The answer is at birth.

If possible, babies should only be fed breast milk for the first 4 to 6 months of life, and they should continue breastfeeding through their first year.

At 4 to 6 months, as you begin to introduce solid baby foods remember to

- Be careful not to overfeed infants.
- Introduce healthy foods repeatedly (even if your baby refuses them at first).
- Limit sweets and high-fat foods to special events.
- Don’t offer juice until your baby is at least six months old, and then limit the amount to 4 to 6 ounces a day.

H. Physical Activity

► Talking Points

There are many things that keep children from being active. Schools have cut back on recess and physical education classes. Children spend hours each day watching TV or playing video games. And in some neighborhoods it's not safe to play outdoors.

When children don't have a chance to be active they are burning fewer calories and those extra calories can turn into fat.

These are good questions to ask parents about their children's physical activity habits

- How does your child spend free time?
- What does your child do when he or she comes home from school?
- How about after dinner?

Ask

How much physical activity should kids get?

► Talking Points

Children and teenagers should be active for at least 60 minutes (1 hour) or more a day. Activities should be fun and right for the kid's age.

- Aerobic activity should make up most of a child's 60 or more minutes of physical activity each day. This can include either moderate-intensity aerobic activity, such as brisk walking, or vigorous-intensity activity, such as running and jumping rope. Be sure kids get vigorous-intensity aerobic activity on at least 3 days per week.
- Include muscle strengthening activities, such as push-ups, pull-ups, and sit-ups, at least 3 days a week as part of their 60 or more minutes of daily physical activity.
- Include bone strengthening activities, such as jumping rope or running, at least 3 days a week as part of their 60 or more minutes of daily physical activity.

► Talking Points

Parents may think that they don't have time to make sure their children get at least one hour of physical activity a day, much less be active themselves for that long. But CHWs can help families think of ways they can fit physical activity into their daily schedules. Being active as a family is easier.

Just as with healthy eating habits, physical activity should be a part of each day as soon as the child begins to walk. Toddlers rarely need to be encouraged to be active, but they need a safe area in which to play.

As children get older, they tend to settle down and begin spending more time in front of the TV or on computer games or phones.

Parents can be good role models and get the family to play active games, go on walks, have family dance nights, or do other activities that are enjoyable for the children such as hiking, biking, swimming, jump rope, running or playing in the yard. Your reward will be better health for everyone.

Discussion: How Can Parents Help Their Children Be More Physically Active? Ask CHWs for their ideas that would work in their communities.

Possible answers might include

- Make family time active time. Be good role models and get the family to play active games, like tag.
- Toss a ball.
- Shoot some hoops.
- Enroll children in community sports teams.
- Park farther from the store and walk.
- Take a family walk after dinner.
- Weed the garden, rake leaves, and shovel snow.
- Play on a playground or hike at a local park.
- Play some music and have a family dance party.
- Blow up balloons and play indoor volleyball.
- Go bowling or indoor skating.

- Have a treasure hunt. See how fast everyone can find clues scattered around your home.
- Walk in the mall.
- Keep a log to see how much time children spend watching TV and on computer games and phones. Limit the time to two hours or less each day. At the beginning of the week, help your children pick TV shows to watch during that week.
- Take TVs, computers, and video games out of their children's bedrooms.
- Buy toys that are fun and that keep everyone active, such as balls, jump ropes, skates, and paddle balls.
- Walk or bike to and from school with their children.
- Go for family walks after dinner and on weekends.
- Start slowly with ten minutes of physical activity and then work up to more.
- Turn off Saturday morning cartoons and take their children to the park or to the zoo.
- Get all the family members to join in exercise video games.
- Dance to the music. Kids want to move, and music can help with that.
- Stretch, dance, or do other physical activities while watching TV with their children.
- Have a contest with their children. See who can do the most push-ups, sit-ups, or jumping-jacks.
- Find an online program to get their heart pumping! Have their children join them.
- Bike to the library together.
- Celebrate a birthday by doing something active, such as a hike, a ball game, or swimming.
- Train together to walk or run a 5K race.
- Challenge their child to jump rope for 5 minutes. When he or she is done, enjoy a big hug. Then you try it!

- Take your children outside to play with the dog for 20 minutes.
- Take the stairs instead of the elevator or the escalator.
- Swim laps at a pool with their children.
- Encourage outdoor play.
- Talk to their child’s school about having more active time for students.
- Ask if the school can be used for physical activities during after-school hours.
- Get their children into active programs with the YMCA, 4-H, the Boy Scouts and Girl Scouts, or Boys and Girls Clubs.
- Talk to community leaders about providing safe and active places for children and teens to play.
- Volunteer to help create or fix up community playgrounds and ball fields.

Activity 15–5: Tips for Healthy Living for Children Age 2 Years and Older

Ask the CHWs to share any other ideas they have for families, in their communities, who want to develop healthy habits for children and teens. Ask the CHWs to add their ideas to the ones on the list. CHWs can give this list to parents who might need ideas on how to keep their family physically fit and eating healthily.

I. Tobacco Control

► Talking Points

About 28% of boy and 15% of girls use tobacco in high school, and more than 5% of girls and more than 7% of boys smoke in middle school.

There are many reasons children and teens start smoking. Here are some of them

- They feel peer pressure or want to be part of the group.
- Seeing their favorite sports figures and movie and rock stars smoking makes it seem “cool.”

- Girls are more likely to smoke to help control their weight.
- Children are more likely to smoke if their parents or older brothers or sisters smoke.
- They use smoking as a way of claiming their independence.
- Smoking makes them feel mature.

Encourage children not to smoke. Tell them the following

- Nicotine in cigarettes, cigars, and spit tobacco is addictive.
- Smoking can damage lungs, and it reduces the oxygen available for muscle use during sports.
- Smoking affects overall athletic performance. Generally, smokers run more slowly and can't run as far as nonsmokers.
- Cigars and chew tobacco are NOT safe alternatives to cigarettes.
- Tobacco makes your hair and clothes stink.
- Tobacco stains teeth and causes bad breath.

Parents can help their child quit smoking in the following ways

- Try to avoid threats and find out why he or she is smoking (for example, stress, wanting to be accepted by other teens, to get your attention).
- Let your child know that for health and legal reasons you disapprove of using tobacco.
- Show your interest in a non-threatening way, ask a few questions about why your teen is smoking, and decide what changes can be made to help him or her stop.
- If you smoke, quit. If you have already quit, talk to your child about your experience.
- Be supportive. Both you and your teen will need to prepare for the mood swings and crankiness that can come with tobacco withdrawal.

If a teen is trying to quit smoking, remind him or her of the "5 D's" to get through the tough times

- **Delay!** The craving will eventually go away.
- **Deep breath.** Take a few calming breaths.
- **Drink water.** It will flush out the tobacco chemicals.

- **Do something else.** Find new habits to replace smoking.
- **Discuss.** Talk about your thoughts and feelings.

Remind teens that quitting for a day is easy but quitting for life is a bit tougher. Parents should get help for themselves or their kids. Suggest that they make a list with their child or teen stating the reasons for wanting to quit. Go back to this list when the kids are tempted to go back to smoking.

It's best to quit "cold turkey" (all at once). Parents can reward their kids when they quit smoking. They can plan something special for to do together.

Get professional help if it's needed. Many health insurance companies pay for programs that help children quit smoking. Some states offer assistance and counseling for people trying to quit smoking through toll-free telephone numbers. These are known as quit lines.

You can find out how to get help by calling the U.S. Quit Line at (800) QUIT-NOW. The Quit Line offers the following:

- A single easy-to-remember number for free information on quitting.
- One-on-one help.
- Support and help with how to cope with quitting smoking.
- Information on ways to quit and tips on helping you quit for good.
- Information about medicines to help you quit smoking.
- Referrals to local quit-smoking programs and services.

You can find help at <http://smokefree.gov/talk-to-an-expert>

Activity 15–6: What Kids Should Know about Tobacco Ask the CHWs to talk about their experience with preteens and teens in their communities. How can they encourage kids to not start smoking or to stop smoking? Have the CHWs review the handout and add their ideas to it. They can use this handout when talking to preteens and teens about not smoking. Also, they can also use activities from the Tobacco Control Chapter. http://www.cdc.gov/tobacco/youth/information_sheet/

Activity 15–7: What Parents Should Know about Keeping Kids Tobacco-Free Ask the CHWs to share what they know about parents of kids that smoke in their communities. Have the CHWs review the handout and add their ideas to it. They can use this handout when talking to parents and others. Also, they can also use activities from the Tobacco Control Chapter.

http://www.cdc.gov/tobacco/youth/information_sheet/

Posttest Questions:

Circle the letters for ALL the correct answers in the questions. A question may have more than one answer.

1. Which of the following can lead to high blood pressure in children and teens?

- a. Eating too many salty foods.
- b. Sleeping too much.
- c. Weighing more than normal.

2. Which of the following are related to overweight and obesity in children and teens?

- a. Eating large amounts of food that are high in fat, sodium, and sugar and drinking too many sugary drinks.
- b. Type 2 diabetes.
- c. High blood cholesterol.
- d. Sitting and playing computer games for a long time each day instead of being physically active.

3. Children and Teens Should

- a. Be physically active at least 30 minutes a day.
- b. Be physically active at least 60 minutes a day.

Correct Answers to Posttest Questions

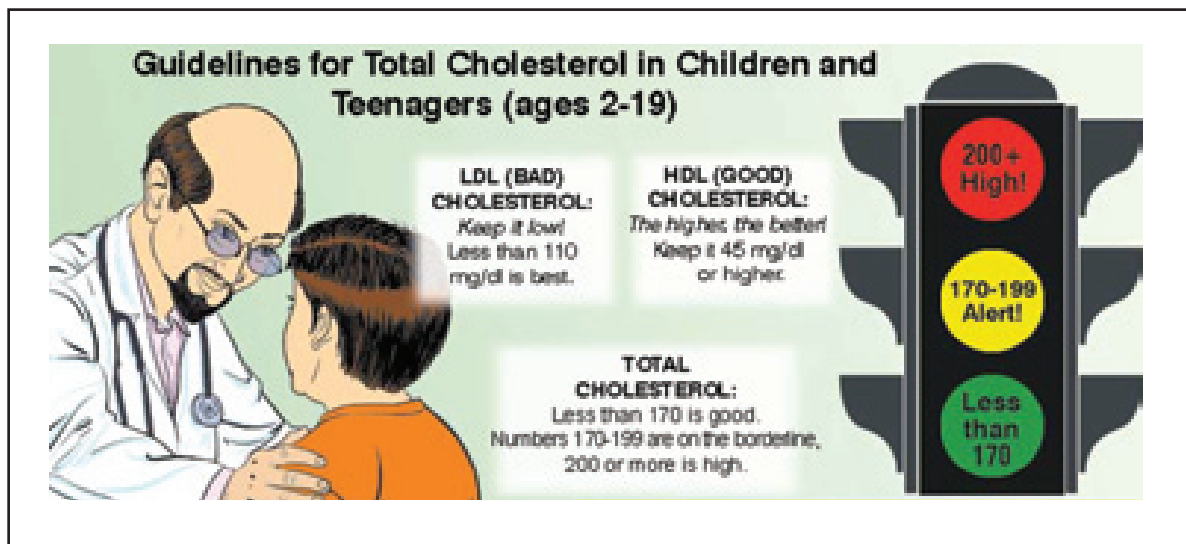
1. a,c

2. a,b,c,d

3. b

Guidelines for Total Cholesterol in Children and Teenagers (ages 2-19)

Activity 15-1



LDL (Bad) Cholesterol: *Keep it low!* Less than 110 mg/dl is best.

HDL (Good) Cholesterol: *The higher, the better!* Keep it 45 mg/dl or higher.

Total Cholesterol: Less than 170 is good. Numbers 170-199 are on the borderline, 200 or more is high.

<http://www.nhlbi.nih.gov/health-pro/guidelines/current/cardiovascular-health-pediatric-guidelines/summary.htm#chap9>

Children and Teens BMI-for-Age Weight Categories and Related Percentiles

Activity 15–2

Weight Status Category	BMI Percentile Range
Underweight	Less than the 5th percentile
Healthy weight	5th percentile to less than the 85th percentile
Overweight	85th to less than the 95th percentile
Obese	Equal to or greater than the 95th percentile

Source http://www.cdc.gov/healthyweight/assessing/bmi/childrens_BMI/about_childrens_BMI.html

As an example, a BMI percentile of 85 means that the child's weight is greater than that of 85 percent of other children of the same age and sex.



Food Servings Guide for Children and Teens

Activity 15–3

Daily estimated calories (kcal/d) and recommended servings for grains, fruits, vegetables, and milk/dairy by age and sex.

Age	1 Year	2–3 Years	4–8 Years	9–13 Years	14–18 Years
Calories*					
Girls	900	1,000	1,200	1,600	1,800
Boys	900	1,000	1,400	1,800	2,200
Fat	30–40%	30–35%	25–35%	25–35%	25–35%
Milk/Dairy	2 cups	2 cups	2 cups	3 cups	3 cups
Lean Meat/Beans					
Girls	1.5 oz	2 oz	3 oz	5 oz	5 oz
Boys	1.5 oz	2 oz	4 oz	5 oz	5 oz
Fruits					
Girls	1 cup	1 cup	1.5 cups	1.5 cups	1.5 cups
Boys	1 cup	1 cup	1.5 cups	1.5 cups	2 cups
Vegetables					
Girls	$\frac{3}{4}$ cup	1 cup	1 cup	2 cups	2.5 cups
Boys	$\frac{3}{4}$ cup	1 cup	1.5 cups	2.5 cups	3 cups
Grains					
Girls	2 oz	3 oz	4 oz	5 oz	6 oz
Boys	2 oz	3 oz	5 oz	6 oz	7 oz

*Calorie estimates are based on a sedentary lifestyle (only the light physical activity that is part of the typical day-to-day life). If your child is very physically active (plays sports, runs, dances, or swims laps) he or she will need an extra 200–400 calories a day.

For children 2 years and older this table is adapted from Table 2, Table 3, and Appendix A-2 of the Dietary Guidelines for Americans, 2005. <http://health.gov/dietaryguidelines/pubs.asp>.



Milk listed is fat-free (except for children under the age of 2 years).

Children and teens should eat a variety of fruits and vegetables, whole-grain and high-fiber breads and cereals, fat-free or low-fat dairy products, as well as fish, chicken, and lean meats, lentils, and beans.

Limit fruit juices and sugary drinks, and drink plenty of water.

Parents should replace high-fat snacks and sugary desserts with healthier choices such as fruits and vegetables. Serve reasonably-sized portions of food for the age and size of the kids.

For children 2 years and older this table is adapted from Table 2, Table 3, and Appendix A-2 of the *Dietary Guidelines for Americans*. 2005. <http://health.gov/dietaryguidelines/pubs.asp>.

For more tips about fruits and vegetables for kids, go to <http://www.cdc.gov/nutrition/everyone/fruitsvegetables/index.html>.



GO, SLOW, and WHOA Foods

Activity 15–4

Use this chart as a guide to help you and your family make smart food choices.

Post it on your refrigerator at home, or take it with you to the store when you shop.

Go to <http://www.nhlbi.nih.gov/health/educational/wecan/downloads/urwhateat.pdf>

- **GO Foods**—Eat almost anytime.
- **SLOW Foods**—Eat sometimes, at most several times a week.
- **WHOA Foods**—Eat only once in a while or on special occasions.

For more great tips and resources go to

<http://www.nhlbi.nih.gov/health/educational/wecan/>



Tips for Healthy Habits for Children Aged 2 Years and Older

Activity 15–5

Encourage Healthy Eating Habits.

There's no great secret to healthy eating. To help your children and family develop healthy eating habits

- Eat a variety of vegetables and fruits daily, and limit juice drinks.
- Each meal should have at least 1 fruit or vegetable.
- Eat vegetable oils and soft margarines that are low in saturated fat and trans fats instead of butter or most other animal fats.
- Eat whole grain and high-fiber breads and cereals instead of refined grain products.
- Reduce the intake of sugar-sweetened drinks and foods.
- Drink plenty of water.
- Have non-fat (skim) or low-fat milk and dairy products daily; they contain all the nutrition of whole milk without the extra fat.
- Broil or bake fish, meat and poultry instead of frying them.
- Limit high fat foods like pizza and French fries.
- Choose lean meats, poultry, fish, lentils, and beans for protein.
- Use less sodium in cooking and on food. Eat fewer processed foods (such as chips and lunch meats), which are high in salt and fat.



- Limit snacks, especially sodas and other sweet drinks, chips, ice cream, pies, candy, cupcakes, doughnuts, cakes, and cookies.
- Portion sizes matter; give children food portions according to their age and size.
- Encourage children to eat a healthy breakfast.
- Have regular family meals with parents modeling good eating habits.

Remember that small changes every day can lead to a recipe for success! Balance calories taken in with physical activity to keep growth normal.

For more information about nutrition, visit ChooseMyPlate.gov and http://www.cdc.gov/healthyweight/healthy_eating/index.html

Help Kids Stay Active

Children and teens should do 60 minutes (1 hour) or more of physical activity each day. This activity does not all have to be done at one time.

Kids imitate adults. Start adding physical activity to our own daily routine and encourage your child to join you.



Reduce sedentary time

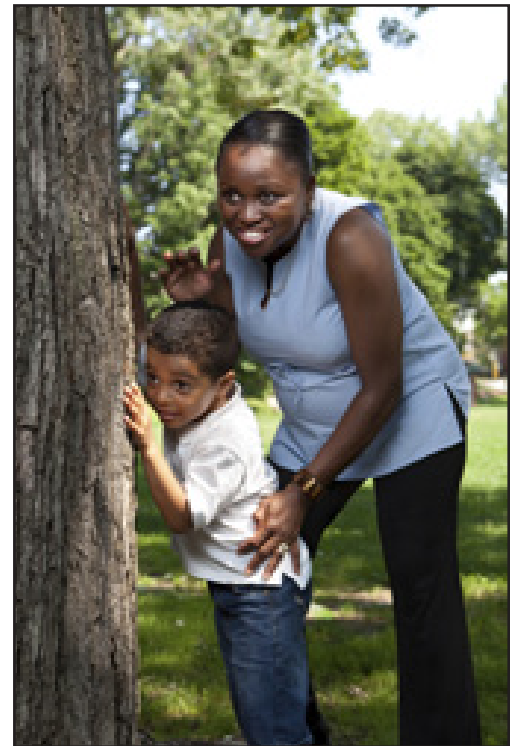
In addition to encouraging physical activity, help children avoid too much time being inactive. Although quiet time for reading and homework is fine, limit it to no more than 2 hours per day.

- The American Academy of Pediatrics (AAP) recommends that children age 2 or younger should not watch TV and videos.
- For children over age 2, limit the amount of time spent watching TV and playing video games to one to two hours a day.
- Don't put TV sets or computers in children's bedrooms.
- Make family time active time. Be good role models and get the family to play active games, like tag.
- Toss a ball.
- Shoot some hoops,
- Enroll kids in community sports teams or lessons.
- Park farther from the store and walk

- Take a family walk after dinner
- Weed the garden, rake leaves, and shovel snow.
- Play on a playground or hike at a local park.
- Play some music and have a family dance party.
- Blow up balloons and play indoor volleyball.
- Go bowling or indoor skating.
- Have a treasure hunt. See how fast everyone can find clues scattered around your home.
- Walk in the mall.



- Keep a log to see how much time children spend watching TV and playing computer games. Limit the time to two hours or less each day. At the beginning of the week, help your children pick TV shows to watch during that week.
- Buy toys that are fun and that keep everyone active, such as balls, jump ropes, skates, and paddle balls.
- Walk or bike to and from school with their children.
- Go for family walks after dinner and on weekends.
- Start slowly with ten minutes of physical activity and then work up to more.
- Turn off Saturday morning cartoons and take their children to the park or to the zoo.



- Get all the family members to join in exercise video games.
- Dance to the music. Kids want to move, and music can help.
- Stretch, dance, or do other physical activities while watching TV with their children.
- Have a contest with their children. See who can do the most push-ups, sit-ups, or jumping-jacks.
- Find an online program to get their heart pumping! Have their children join them.
- Bike to the library together.

- Celebrate a birthday by doing something active, such as a hike, a ball game, or swimming.
- Train together to walk or run a 5K race.
- Challenge their child to jump rope for 5 minutes. When he or she is done, enjoy a big hug. Then you try it!
- Take your children outside to play with the dog for 20 minutes.
- Take the stairs instead of the elevator or the escalator.
- Swim laps at a pool with their children.
- Encourage outdoor play.
- Talk to their child's school about having more active time for students.



- Ask if the school can be used for physical activities during after-school hours.
- Get their children into active programs with the YMCA, 4-H, the Boy Scouts and Girl Scouts, or Boys and Girls Clubs.
- Talk to community leaders about providing safe and active places for children and teens to play.
- Volunteer to help create or fix up community playgrounds and ball fields

Help Kids Stay Healthy

- Help children to not start smoking and to quit if they smoke.
- Make sure your children have regular medical check-ups, and ask that their blood pressure, blood cholesterol, and blood sugar be checked.
- Work with your doctor or nurse to improve your children's eating and physical activity habits and to help your children control weight and blood sugar levels.

Want to learn more?

Here are some additional resources that you (and your child) can use to help reach or keep a healthy weight through physical activity and healthy food choices!

For Parents and Guardians

[Child and Teen BMI \(Body Mass Index\) Calculator](#)

Worried about your child's weight? For children, BMI is used to screen for overweight, but is not a diagnostic tool. For more, see [About BMI for Children and Teens](#).

[Childhood Overweight](#)

This Web site provides information about childhood overweight, including how overweight is defined for children, the prevalence of overweight, the factors associated with overweight, and the related health consequences.

[Physical Activity for Everyone](#)

Provides information about physical activity for you and your children.

[FruitsandVeggiesMatter.gov](#)

Great recipes and information about how to incorporate fruits and vegetables in your daily meals.

[How to Avoid Portion Size Pitfalls](#)

Confused about portion sizes? Play the CDC's portion control game!

[ChooseMyPlate.gov](#)

Provides a tailored explanation of how to balance your meals and includes an interactive game for kids.

[We Can!](#)

This national education program is designed for parents and caregivers to help children 8-13 years old stay at a healthy weight. The booklet "[Finding the Balance: A Parent Resources](#)" offers an array of easy to use practical tips and tools for parents and guardians to help their children and families eat healthy, increase physical activity, and decrease screen time.

Sites for Kids

<http://www.cdc.gov/nutrition/everyone/resources/>



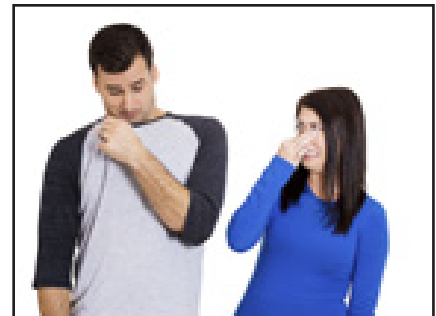
Tobacco and Athletic Performance

- Don't get trapped. Nicotine in cigarettes, cigars, and spit tobacco is addictive.
- Nicotine narrows your blood vessels and puts added strain on your heart.
- Smoking can wreck your lungs and reduce the oxygen available for the muscles you use during sports.
- Smokers suffer shortness of breath (gasp!) almost three times more often than nonsmokers.
- Smokers run more slowly than nonsmokers and can't run as far; smoking affects overall athletic performance.
- Cigars and spit tobacco are **NOT** safe alternatives.



Tobacco and Personal Appearance

- Yuck! Tobacco smoke can make hair and clothes stink.
- Tobacco stains teeth and causes bad breath.
- Short-term use of spit tobacco can cause cracked lips, white spots, sores, and bleeding in the mouth.
- Surgery to remove oral cancers caused by tobacco use can lead to serious changes in a person's face.



So . . .

- Know the truth. Despite all the tobacco use you may see on TV, in movies, in music videos, on billboards, and in magazines, most teens, adults, and athletes **DON'T** use tobacco.
- Make smoke-free goals and remind yourself why you want to be smoke free. This will help you keep in track when a craving strikes. Start by making a list of the reasons you want to quit. Keep your list somewhere you'll see it (like your phone, car, or locker) Keeping a reminder close by when you're triggered to smoke will remind you why you want to stay quit.
- Get rid of the things that remind you of smoking now you are on your way to being smoke-free! **START** by trashing your pack of cigarettes, other tobacco products, and lighters.

- Check out the cool tips on starting to quit smoking at <http://teen.smokefree.gov/quitStart.aspx>
- Keep your mouth busy. Bum a stick of gum instead of a cigarette, or keep hard candy with you. Drinking water also works!
- Do something else. When a craving hits, stop what you're doing right away and do something else. Simply changing your routine can help you shake off a craving.
- Make friends, develop athletic skills, control weight, be independent, be cool ... play sports.
- Don't waste money on tobacco. Spend it on clothes, computer games, or movies instead, or save it for something special.
- Get involved: make your team, school, and home tobacco-free; educate others. Join community efforts to prevent tobacco use.

If you need help right away, you can talk to a quit smoking counselor by phone or online. Using quit programs such as [SmokefreeTXT](#) or calling a quitline.



What Parents Should Know about Keeping Children Tobacco-Free

Activity 15–7

Parents—Help Keep Your Kids Tobacco-Free

- Kids who use tobacco
 - May cough and have asthma attacks more often, and may develop breathing problems that lead to more sick days, more doctor bills, and poorer athletic performance.
 - May be more likely to use alcohol and other drugs, such as marijuana and cocaine.
 - May become addicted to tobacco and may find it extremely hard to quit.
- Spit tobacco and cigars are not safe alternatives to cigarettes; low-tar and additive-free cigarettes are not safe either.
- Tobacco use is the single-most preventable cause of death in the United States; it causes heart disease, cancers, and strokes.



Take a Stand at Home—Early and Often

- Despite the impact of movies, music, and TV on children, parents can be the **GREATEST INFLUENCE** in their kids' lives.
- Talk directly to your children about the risks of tobacco use; if friends or relatives have died from tobacco-related illnesses, let your kids know.
- If you use tobacco, you can still make a difference. Your best move, of course, is to try to quit. Meanwhile, don't use tobacco in your children's presence, don't offer it to them, and don't leave it where they can easily get it.
- Start talking about tobacco use when your children reach age 5 or 6, and continue the dialog through their high school years. Many kids start using tobacco by age 11, and many are addicted by age 14.

- Know whether your kids' friends use tobacco. Talk about ways to refuse tobacco.

Talk with your kids about the false glamor of tobacco on billboards and in other media, such as movies, TV, magazines, and online.

If your kid needs help right away, he or she can talk to a quit smoking counselor by phone or online. To find quit lines, Phone Apps, Instant Messaging, and programs go to <http://smokefree.gov/talk-to-an-expert>.

Make a Difference in Your Community

- Vote with your pocketbook. Support businesses that don't sell tobacco to kids. Go to restaurants and other places that are tobacco-free.
- Be sure your schools and all school events (such as parties and sports events) are tobacco-free.
- Partner with your local tobacco prevention programs. Call your local health department or your cancer, heart, or lung association to learn how you can get involved.



Resources¹

Note: if any of the links appear outdated (e.g., don't link to their correct address), we recommend visiting the page's main site and doing a search of the document title listed.

Trainer's Notes

American Heart Association. Heart Disease and Stroke Statistics-2014 Update. http://www.heart.org/HEARTORG/General/Heart-and-Stroke-Association-Statistics_UCM_319064_SubHomePage.jsp

American Public Health Association. Community Health Workers Website. <http://www.apha.org/apha-communities/member-sections/community-health-workers>

Management Sciences for Health. Health Resources and Services Administration and Bureau of Primary Health Care. U.S. Department of Health & Human Services. The Provider's Guide to Quality & Culture. <http://erc.msh.org/mainpage.cfm?file=1.0.htm&module=provider&language=English>

Multnomah County Health Department: Community Capacitation Center. Popular education. <http://web.multco.us/health/popular-education-workshops>

National Heart, Lung, and Blood Institute. National Institutes of Health. U.S. Department of Health & Human Services. Resources. <http://www.nhlbi.nih.gov/health-pro/resources/>

National Heart, Lung, and Blood Institute. National Institutes of Health. U.S. Department of Health & Human Services. With Every Heartbeat Is Life: A Community Health Worker's Manual and Picture Cards for the African American Community. http://www.nhlbi.nih.gov/health/prof/heart/other/chdblack/aa_manual.htm

National Heart, Lung, and Blood Institute. National Institutes of Health. U.S. Department of Health & Human Services. Honoring the Gift of Heart Health: A Heart Health Educator's Manual for American Indians. http://www.nhlbi.nih.gov/files/docs/resources/heart/ai_manual.pdf

National Heart, Lung, and Blood Institute. National Institutes of Health. U.S. Department of Health & Human Services. Honoring the Gift of Heart Health: A Heart Health Educator's Manual for Alaska Natives. http://www.nhlbi.nih.gov/files/docs/resources/heart/ak_manual.pdf

1. The Training Resource references the Web sites and products of other federal agencies and private or not-for-profit organizations. A reference in the Training Resource to any specific Web site, commercial product, process, service, or company does not constitute its endorsement or recommendation by the U.S. Government or CDC.

National Heart, Lung, and Blood Institute. National Institutes of Health. U.S. Department of Health & Human Services. Healthy Heart, Healthy Family: A Community Health Worker's Manual and Picture Cards for the Filipino Community. http://www.nhlbi.nih.gov/health/prof/heart/other/filipino_mnl.htm

National Heart, Lung, and Blood Institute. National Institutes of Health. U.S. Department of Health & Human Services. Your Heart, Your Life: A Community Health Worker's Manual and Picture Cards for the Latino/Hispanic Community (English and Spanish) English: http://www.nhlbi.nih.gov/health/prof/heart/latino/lat_mnl.htm Spanish: http://www.nhlbi.nih.gov/health/prof/heart/latino/lat_mnl_sp.htm

Rosenthal EL, Wiggins N, Brownstein JN, et al. A Summary of National Community Health Advisor Study: Weaving the Future. Tucson, AZ: University of Arizona; 1998. <http://crh.arizona.edu/sites/crh.arizona.edu/files/pdf/publications/CAHsummaryALL.pdf>

Wiggins, Noelle. Popular Education for Health Promotion and Community Empowerment: a Review of the Literature. <http://heapro.oxfordjournals.org/content/early/2011/08/11/heapro.dar046.full.pdf+html>

National Heart, Lung, and Blood Institute National Institutes of Health. U.S. Department of Health & Human Services. Your Heart, Your Life: Your Heart, your Life Picture Cards for Community Health Worker: Picture Card 1:3. http://www.nhlbi.nih.gov/files/docs/resources/heart/pict_crd.pdf

A Summary of the National Community Health Advisor Study: Weaving the Future. Tucson, AZ: University of Arizona; 1998. <http://crh.arizona.edu/sites/crh.arizona.edu/files/pdf/publications/CAHsummaryALL.pdf>

Heart Disease and Stroke Overview

American Heart Association. Heart Disease and Stroke Statistics – 2014. <http://circ.ahajournals.org/content/129/3/e28.full>

Centers for Disease Control and Prevention. U.S. Department of Health & Human Services. Division for Heart Disease and Stroke Prevention Website. <http://www.cdc.gov/dhdsp/>

National Heart, Lung, and Blood Institute National Institutes of Health. U.S. Department of Health & Human Services. Heart Truth. <http://www.nhlbi.nih.gov/health/educational/hearttruth/>

U.S. National Library of Medicine. Medline Plus. Coronary Artery Disease. <http://www.nlm.nih.gov/medlineplus/coronaryarterydisease.html>

American Heart Association. Cardiovascular Conditions Video Library. www.heart.org/HEARTORG/Conditions/More/ToolsForYourHeartHealth/Cardiovascular-Conditions-Video-Library_UCM_432751_SubHomePage.jsp

Stroke

American Stroke Association. www.strokeassociation.org

American Stroke Association. Families and Caregivers. <http://www.stroke.org/site/PageServer?pagename=care>

Centers for Disease Control and Prevention. U.S. Department of Health & Human Services. About Stroke <http://www.cdc.gov/stroke/about.htm>

National Institute of Neurological Disorders and Stroke. U.S. Department of Health & Human Services. Stroke Information. www.ninds.nih.gov/disorders/stroke/stroke.htm

National Institute of Neurological Disorders and Stroke. U.S. Department of Health & Human Services. What You Need to Know About Stroke. www.ninds.nih.gov/disorders/stroke/stroke_needtoknow.htm

Heart Attack

American Heart Association. Heart Attack Video. http://watchlearnlive.heart.org/CVML_Player.php?moduleSelect=hrtatk

American Heart Association. AED Resources. http://www.heart.org/HEARTORG/CPRAndECC/CorporateTraining/AEDResources/AED-Resources_UCM_001296_SubHomePage.jsp

Million Hearts. Community Health Workers and Million Hearts. http://www.cdc.gov/bloodpressure/docs/mh_commhealthworker_factsheet_english.pdf

Million Hearts. Los Promotores de Salud y La Iniciativa Million Hearts. http://www.cdc.gov/bloodpressure/docs/mh_commhealthworker_factsheet_spanish.pdf

National Heart, Lung, Blood Institute. National Institutes of Health. U.S. Department of Health & Human Services. Don't Take a Chance with a Heart Attack: Know the Facts and Act Fast. http://www.nhlbi.nih.gov/files/docs/public/heart/heart_attack_fs_en.pdf

National Heart, Lung, Blood Institute. National Institutes of Health. U.S. Department of Health & Human Services. Learn What a Heart Attack Feels Like- It Could Save your Life. http://www.nhlbi.nih.gov/files/docs/public/heart/heart_attack_low-lit_fs.pdf

National Heart, Lung, Blood Institute. National Institutes of Health. U.S. Department of Health & Human Services. What is a Heart Attack? <http://www.nhlbi.nih.gov/health/health-topics/topics/heartattack/>

National Heart, Lung, Blood Institute. National Institutes of Health. U.S. Department of Health & Human Services. Know the Symptoms. Take Action. http://www.nhlbi.nih.gov/files/docs/public/heart/heart_attack_fs_en.pdf

U.S. Department of Health & Human Services. Heart Attack Wallet Card. http://www.nhlbi.nih.gov/files/docs/public/heart/heart_attack_wallet_card.pdf

U.S. Department of Health & Human Services. Million Hearts: Resources and Toolkits. <http://millionhearts.hhs.gov/resources/toolkits.html>

Heart Failure

American Heart Association. Heart Failure. http://www.heart.org/HEARTORG/Conditions/HeartFailure/Heart-Failure_UCM_002019_SubHomePage.jsp

American Heart Association. Animation of Heart Failure. http://www.heart.org/HEARTORG/Conditions/HeartFailure/AboutHeartFailure/About-Heart-Failure_UCM_002044_Article.jsp

Heart Failure Society of America. Patient Resources. <http://hfsa.org/hfsa-wp/wp/>

National Heart, Lung, Blood Institute. National Institutes of Health. U.S. Department of Health & Human Services. What is the DASH Eating Plan? <http://www.nhlbi.nih.gov/health/health-topics/topics/dash/>

Atrial Fibrillation

American Heart Association. What is Atrial Fibrillation? <http://www.atrialfibrillation-us.org/>
http://www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/downloadable/ucm_300294.pdf

American Heart Association. What is a Pacemaker? http://www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/downloadable/ucm_300451.pdf

American Heart Association. What is a Defibrillator? http://www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/downloadable/ucm_300451.pdf

American Heart Association. AFib: Partnering in Your Treatment. http://www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/downloadable/ucm_423745.pdf

American Heart Association. Pacemaker Video. http://www.move.va.gov/download/NewHandouts/PhysicalActivity/P09_HowToTakeYourHeartRate.pdf

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Medicines for Preventing First and Repeat Strokes

What You Should Know

- People who have atrial fibrillation are at increased risk for a first or repeat stroke.
- Medicines that prevent blood from clotting (anticoagulants and antiplatelet drugs) can reduce the risk for stroke.
- Some medicines can cause side effects, or reactions. If you have a reaction, talk to your doctor.
- Always ask your doctor or pharmacist if you do not understand how much medicine to take, when to take it, or how often to take it. Take all medicines as your doctor advises.
- People may need to take more than one medicine to help prevent a first or second stroke.
- Always tell your doctor if you think you are pregnant.
- Always tell your doctor about other medicines you are taking.
- Check with your doctor before taking over-the-counter medicines (from the drugstore, or grocery store, and other stores), vitamins, and herbs.
- Do the following to help your medicines work better: eat whole-grains breads and cereal and high-fiber foods like fruits and vegetables, and lean meat, chicken and fish, and low-fat dairy foods; cut back on sodium (salt), saturated fats, trans fats, and store-bought baked goods and snacks; lose weight; quit smoking; reduce or stop drinking alcohol; and be physically active.

Medicines for Preventing Stroke

Type	How it works	What you need to know
Anticoagulants (blood thinners), such as warfarin.	Prevents blood from clotting and causing strokes.	<p>Take after eating to reduce stomach problems. Eat a balanced diet, and do not eat very large amounts of food that are high in vitamin K in one meal or in one day. (These foods include broccoli, cabbage, lettuce, collard and turnip greens, and spinach.)</p> <p>Your doctor will need to check the clotting time of blood regularly.</p> <p>Let your dentist and other health care workers know you take blood thinners.</p> <p>Do not take aspirin unless your doctor tells you to.</p> <p>Tell your doctor if you have—</p> <ul style="list-style-type: none"> • Stomach pain. • A very bad headache that doesn't go away. • Frequent bruising. <p>If you miss a dose, let your doctor know rather than trying to make up the missed dose.</p>
Antiplatelet agents (such as aspirin).	Prevents blood cells from clumping and producing clots that cause strokes.	<p>Eat before taking, or use a coated aspirin to reduce stomach problems.</p> <p>Only take aspirin the way your doctor tells you and not any other way.</p> <p>This medicine should not be taken by people who are allergic to aspirin.</p>
Blood pressure–lowering medicines.	See blood pressure medicine sheet.	See blood pressure medicine sheet.

Type	How it works	What you need to know
Cholesterol-lowering medicines.	See cholesterol-lowering medicine sheet.	See cholesterol-lowering medicine sheet.
Diabetes medicine, if you have diabetes.	See diabetes medicine sheet.	See diabetes medicine sheet.

Other Types of Medicine:

There are many other medicines available to prevent and treat stroke. Also, if you have high blood pressure, high blood cholesterol, or diabetes, you will need medications to keep these diseases under control to lower your risk of stroke. Talk to your doctor to learn more about a treatment plan.

Medicine for Coronary Artery Disease, Including Heart Attack and Angina

What You Should Know

- Coronary artery disease is the result of cholesterol and other fats building up in the arteries. When blood clots in a blocked artery, blood and oxygen can't get to the heart and the person has a heart attack. *Angina* is the term for the chest pain or pressure that is felt when the damaged area of the heart is not getting enough oxygen.
- Some medicines can cause side effects, or reactions, such as dizziness, which may bother you. If you have a reaction, talk to your doctor or nurse and he or she will help you.
- Be sure to take all medicines as your doctor advises. Always ask your doctor or pharmacist if you do not understand how much medicine to take, when to take it, or how often to take it.
- People may need more than one medicine to treat heart attack, angina, or blood vessel disease. Sometime several drugs must be tried.
- Always tell your doctor if you think you are pregnant.
- Always tell your doctor about other medicines you are taking.
- Check with your doctor before taking over-the-counter medicines (from the drugstore, grocery store, and other stores), vitamins, and herbs.
- Do the following to help your medicines work better: eat whole-grains

breads and cereal and high-fiber foods like fruits and vegetables, and lean meat, chicken and fish, and low-fat dairy foods; cut back on sodium (salt), saturated fats, trans fats, and store-bought baked goods and snacks; lose weight; quit smoking; reduce or stop drinking alcohol; and be physically active.

Coronary Artery Disease Medicines

Type	How it works	What you need to know
Anticoagulants (blood thinners), such as warfarin.	Prevents blood from clotting and causing heart attacks.	Take after eating to reduce stomach problems. Limit eating foods high in vitamin K (such as broccoli, kale, collard and turnip greens, and spinach). Your doctor will need to check the clotting time of your blood regularly. Let your dentist and other health care workers know you take blood thinners. If you miss a dose, let your doctor know rather than trying to make up a missed dose. Do not take aspirin unless your doctor tells you to. Tell your doctor if have a) stomach pain, b) a very bad headache that doesn't go away, or c) frequent bruising.
Antiplatelet, such as aspirin.	Prevents blood particles called platelets from clumping and producing clots, which cause heart attacks.	Eat before taking this medicine, or use a coated aspirin to reduce stomach problems. Only take aspirin the way your doctor advises and not in any other way. This medicine should not be taken by people who are allergic to aspirin.

Type	How it works	What you need to know
Beta blockers.	Makes the heart beat slower and with less force.	<p>Take continuously after a heart attack.</p> <p>Make sure your doctor or nurse knows if you have asthma or a problem with your lungs, or if fluid builds up in your body.</p> <p>Do not stop the beta blocker medicine all at once. Doing so can lead to a very large rise in blood pressure and can increase your chance of a heart attack.</p>
Calcium channel blockers.	Makes the heart beat slower, keep blood vessels open, and reduce angina.	<p>Talk to your doctor before taking any allergy medicine.</p> <p>Tell your doctor if you are dizzy or have abnormal heartbeats.</p>
Nitroglycerin.	Relieves angina and reduces risk of heart attack and sudden death.	Take only as your doctor advises
Thrombolytic.	Dissolves blood clots and prevents heart attacks.	<p>Tell your doctor about any unusual bleeding after you have an injury.</p> <p>People should not take this if they have had strokes or have uncontrolled blood pressure.</p>
ACE* inhibitors.	Keeps the heart from enlarging.	<p>Your doctor will check your kidneys and watch your blood pressure closely.</p> <p>Do not take if you are pregnant.</p> <p>Take continuously after a heart attack.</p>

Type	How it works	What you need to know
Blood pressure–lowering medicines.	See blood pressure medicine sheet.	See blood pressure medicine sheet.
Cholesterol-lowering medicines.	See cholesterol-lowering medicine sheet.	See cholesterol-lowering medicine sheet.
Diabetes medicine, if you have diabetes.	See diabetes medicine sheet.	See diabetes medicine sheet.

*ACE = angiotensin-converter enzyme.

Other Types of Medicine

There are many other medicines available to prevent and treat stroke. Also, if you have high blood pressure, high blood cholesterol, or diabetes, you will need medications to keep these diseases under control to lower your risk of heart disease and heart attack. Talk to your doctor to learn more about a treatment plan.

Medicine for Heart Failure

What You Should Know

- Persons whose hearts have been damaged by high blood pressure, heart attack, or clogged blood vessels in the heart (coronary heart disease) or lungs are at risk for heart failure. (When a person has heart failure, the heart is too weak to pump enough blood to the rest of the body, and the blood builds up in the veins and lungs.) Heart failure starts slowly and gets worse over time.
- Regularly taking medicines to treat heart failure helps people live longer, breathe easier, have more energy, be more active, have less swelling, and stay out of the hospital. It can also reduce the risk of death.
- Some medicines can cause side effects, or reactions (such as dizziness), which may bother you. If you have a reaction, talk to your doctor or nurse and he or she will help you.

- Be sure to take all medicines as directed. Always ask your doctor or pharmacist if you do not understand how much medicine to take, when to take it, or how often to take it.
- People may need more than one medicine to treat heart failure. Sometimes several drugs must be tried.
- Always tell your doctor if you think you are pregnant.
- Always tell your doctor about other medicines you are taking.
- Check with your doctor before taking over-the-counter medicines (from the drugstore, grocery store, and other stores), especially decongestants (cold and sinus medicines), anti-inflammatory medicines such as ibuprofen (pain medicine similar to aspirin), vitamins, or herbs.
- It is very important to follow your doctor's direction on the amount of salt and sodium you can have.
- It is very important that you quit smoking, stop drinking alcohol, and lose weight, if needed.
- Do the following to help your medicines work better: eat whole-grains breads and cereal and high-fiber foods like fruits and vegetables, and lean meat, chicken and fish, and low-fat dairy foods; cut back on sodium (salt), saturated fats, trans fats, and store-bought baked goods and snacks; lose weight; quit smoking; reduce or stop drinking alcohol; and be physically active.

Heart Failure Medicines

Type	How it works	What you need to know
ACE* inhibitors and ARBs.**	Causes blood vessels to widen and decrease the amount of work the heart has to do. These are the main drugs that help people who have heart failure.	<p>Your doctor will check your kidneys and watch your blood pressure closely.</p> <p>Do not take this medicine if pregnant.</p> <p>You may develop a cough while on this medicine. If so, tell your doctor or nurse. The coughing could be due either to the medicine or to worsening heart failure.</p>
Beta blockers.	Makes the heart beat slower and with less force, which lowers blood pressure.	<p>Make sure your doctor or nurse knows if you have asthma or a problem with your lungs, or if fluid builds up in your body.</p> <p>Ask your doctor or nurse how often you should have your blood pressure and heart rate checked.</p> <p>Do not stop the beta blocker medicine all at once. Doing so can lead to a very large rise in blood pressure and can increase your chance of a heart attack.</p>
Other vasodilators (such as nitroglycerin and digoxin).	<p>Causes the blood vessels to relax, allowing the blood to flow easier.</p> <p>Increases the force of each heartbeat and slows a fast heart rate.</p>	<p>These medicines are for people who cannot take ACE inhibitors.</p> <p>Your doctor will check your kidneys and your potassium levels if you are taking both digoxin and a diuretic (water pill).</p> <p>Never take more digoxin than directed by your doctor.</p>

Type	How it works	What you need to know
<p>Diuretics, or “water pills.”</p>	<p>Helps your kidneys get rid of extra fluid and sodium as urine, reducing swelling in your lungs and other parts of your body.</p>	<p>The doctor may give you potassium pills to make up for the loss of potassium.</p> <p>Take the medicine as your doctor advises. Tell the doctor or nurse if you feel dizzy. Your doctor may want you to weigh yourself every day to make sure you are not losing too much fluid.</p>
<p>Anticoagulants (blood thinners), such as warfarin.</p>	<p>Helps prevent blood clots in the legs, lungs, and heart.</p>	<p>Take after eating to reduce stomach problems. Do not eat very large amounts of foods that are high in vitamin K in one meal or in one day. (These foods include broccoli, kale, cabbage, lettuce, collard and turnip greens, and spinach.)</p> <p>If you take a multivitamin, ask your pharmacist to help you find one that does not have vitamin K. Ask about herbal products you are using.</p> <p>Your doctor will need to check the clotting time of your blood regularly.</p> <p>Let your dentist and other health care workers know you take blood thinners.</p> <p>If you miss a dose, let your doctor know rather than trying to make up the missed dose.</p> <p>Do not take if you have uncontrolled high blood pressure or bleeding disorders.</p> <p>Do not take aspirin unless your doctor tells you to. Tell your doctor if you have (a) stomach pain, (b) a very bad headache that doesn’t go away, or (c) frequent bruising.</p>

* ACE = antiotgnsin-converter enzyme. **ARBs = antiogensin-receptor blockers.

Other Types of Medicine:

There are other medicines available to treat heart failure. Talk to your doctor to learn more about a treatment plan.

Medicine for Atrial Fibrillation**What You Should Know**

- People who have atrial fibrillation (irregular and fast heartbeats) are at a greatly increased risk for heart failure, stroke, and sudden cardiac death.
- Taking medicines that treat atrial fibrillation can reduce the risk of having heart failure, stroke, and sudden cardiac death.
- Some medicines can cause side effects, or reactions, such as dizziness, which may bother you. If you have a reaction, talk to your doctor or nurse and he or she will help you.
- Be sure to take all medicines as directed. Always ask your doctor or pharmacist if you do not understand how much medicine to take, when to take it, or how often to take it.
- People may need to take more than one medicine to control atrial fibrillation. Sometimes several drugs must be tried.
- Always tell your doctor about other medicines you are taking.
- Check with your doctor before taking over-the-counter medicines (from the drugstore, grocery store, and other stores), vitamins, and herbs.
- Do the following to help your medicines work better: eat whole-grains breads and cereal and high-fiber foods like fruits and vegetables, and lean meat, chicken and fish, and low-fat dairy foods; cut back on sodium (salt), saturated fats, trans fats, and store-bought baked goods and snacks; lose weight; quit smoking; reduce or stop drinking alcohol; and be physically active.

Atrial Fibrillation Medicines

Type	How it works	What you need to know
Digoxin.	Makes the heart beat slower.	Monitor your pulse regularly.
Beta blockers.	Makes the heart beat slower and with less force.	<p>Make sure your doctor knows if you have asthma or a problem with your lungs.</p> <p>Ask your doctor or nurse how often you should have your blood pressure and heart rate checked.</p> <p>Do not stop the beta blocker medicine all at once. Doing so can lead to a very large rise in blood pressure and may increase your chance of a heart attack.</p>
Calcium channel blockers.	Makes the heart beat slower.	Talk to your doctor before taking any allergy medicine.
Sodium channel blockers.	Makes the heart beat normally.	Tell the doctor if you have glaucoma.
Potassium channel blockers.	Makes the heart beat slower.	Make sure your doctor knows if you have asthma or a problem with your lungs.

Type	How it works	What you need to know
<p>Anticoagulants (blood thinners), such as warfarin.</p>	<p>Prevents blood from clotting and causing strokes</p>	<p>Take after eating to reduce stomach problems. Do not eat very large amounts of foods that are high in vitamin K in one meal or in one day. (These foods include broccoli, kale, cabbage, lettuce, collard and turnip greens, and spinach.)</p> <p>If you take a multivitamin, ask your pharmacist to help you find one that does not have vitamin K. Ask about herbal products you are using.</p> <p>Your doctor will need to check the clotting time of your blood regularly.</p> <p>Let your dentist and other health care workers know you take blood thinners.</p> <p>Do not take aspirin unless your doctor tells you to.</p> <p>Tell your doctor if you have—</p> <ul style="list-style-type: none"> • Stomach pain, • A very bad headache that doesn't go away, or • Frequent bruising. <p>If you miss a dose, let your doctor know rather than trying to make up the missed dose.</p>

Other Types of Medicine

There are other medicines available to treat atrial fibrillation. Talk to your doctor to learn more about a treatment plan.

Medicine for High Blood Pressure

What You Should Know

- Many people with high blood pressure may take more than one medicine to keep their blood pressure under control. Take all medicines even if you feel fine.
- Some medicines can cause side effects, or reactions, such as dizziness, which may bother you. If you have a reaction, talk to your doctor or nurse and he or she will help you.
- Be sure to take all medicines as directed. Always ask your doctor or pharmacist if you do not understand how much medicine to take, when to take it, or how often to take it.
- Always tell your doctor if you think you are pregnant.
- Always tell your doctor about other medicines you are taking.
- Check with your doctor before taking over-the-counter medicines (from the drugstore, grocery store, and other stores), vitamins, and herbs.
- Do the following to help your medicines work better: eat whole-grains breads and cereal and high-fiber foods like fruits and vegetables, and lean meat, chicken and fish, and low-fat dairy foods; cut back on sodium (salt), saturated fats, trans fats, and store-bought baked goods and snacks; lose weight; quit smoking; reduce or stop drinking alcohol; and be physically active.

High Blood Pressure Medicines

Type	How it works	What you need to know
Diuretics, or “water pills.”	Helps your kidneys flush excess fluid and sodium from your body through urine. This reduces the amount of fluid in your blood and decreases blood pressure. Some diuretics can also cause blood vessels to widen and can reduce your blood pressure.	<p>The doctor may give you potassium pills to offset the loss of potassium through your urine. Take the medicine as your doctor advises.</p> <p>The doctor may give you a diuretic alone or with another blood pressure–lowering medicine.</p>
Beta blockers.	Makes the heart beat slower and with less force, which helps the blood pressure go down.	<p>Make sure your doctor knows if you have asthma or a problem with your lungs.</p> <p>Do not stop the beta blocker medicine all at once. Doing so can lead to a very large rise in blood pressure and can increase your chance of a heart attack.</p>
ACE* inhibitors and ARBs.**	Blocks a substance in the blood that causes your blood vessels to tighten, thus relaxing the blood vessels and lowering blood pressure.	<p>Your doctor will check your kidneys and watch your blood pressure closely.</p> <p>Let your doctor know if this drug makes you cough.</p> <p>Not to be taken if you are pregnant.</p>
Calcium channel blockers.	Prevents calcium from entering the muscle cells of the heart and blood vessels. This action causes the blood vessels to relax and open wider, lowering blood pressure.	Talk to your doctor before taking any allergy medicine.
Other vasodilators.	Causes the blood vessels to relax, allowing blood to flow easier.	These drugs may be combined with other drugs or used by people who can’t take ACE inhibitors.

* ACE = angiotensin-converting enzyme; ** ARBs = angiotensin-receptor blockers.

Other Types of Medicine:

There are many other medicines available to control your high blood pressure. Talk to your doctor to learn more about your high blood pressure treatment plan.

Medicine for High Blood Cholesterol

What You Should Know

- Do the following to help your medicines work better: eat whole-grains breads and cereal and high-fiber foods like fruits and vegetables, and lean meat, chicken and fish, and low-fat dairy foods; cut back on sodium (salt), saturated fats, trans fats, and store-bought baked goods and snacks; lose weight; quit smoking; reduce or stop drinking alcohol; and be physically active.
- People who have high blood cholesterol are at increased risk for heart disease, stroke, and diabetes.
- Medicines that reduce the amount of cholesterol in the blood can reduce the risk of heart disease, stroke, and diabetes.
- Some medicines can cause side effects, or reactions, which can be taken care of. If you have a reaction, talk to your doctor.
- Be sure to take all medicines as directed. Always ask your doctor or pharmacist if you do not understand how much medicine to take, when to take it, or how often.
- People may need more than one medicine to help prevent a first or second heart attack and stroke.
- Always tell your doctor if you think you are pregnant.
- Always tell your doctor about other medicines you are taking.
- Check with your doctor before taking over-the-counter medicines (from the drugstore, grocery store, and other stores), vitamins, and herbs.

High Blood Cholesterol Medicines

Type	How it works	What you need to know
Statins.	Blocks cholesterol from being made and removes LDL cholesterol from the blood.	You may have some constipation, loose stools, or muscle pain.
Other cholesterol-lowering medicines.	Removes LDL cholesterol from the blood faster; reduces the amount of LDL that is made; speeds up the breakdown of cholesterol.	Tell your doctor if you have diabetes or a history of gallstones.
Niacin.	Causes less LDL cholesterol to be made.	You may have some constipation or loose stools.

Medicine for Diabetes

What You Should Know

- Diabetes is too much glucose, or sugar, in the blood. If diabetes is not controlled, it can cause other serious health problems, such as blindness, kidney and heart failure, heart attack, and stroke.
- There are three main types of diabetes: **type 1**, **type 2**, and **gestational**.
- The pancreas of a person with **type 1 diabetes** produces little or no insulin. People usually develop type 1 diabetes when they are children or young adults. **People with type 1 diabetes must use insulin every day to stay alive.**
- Most people have **type 2 diabetes**. The pancreas can make insulin, but it is either not enough or the body isn't able to use it very well.
- Some women have diabetes only when they are pregnant. This is called **gestational diabetes**. It is important for these women to check for diabetes regularly for the rest of their lives.
- Some medicines can cause side effects, or reactions, such as dizziness, which may bother you. If you have a reaction, talk to your doctor or nurse and he or she will help you.

- Be sure to take all medicines as your doctor advises. Always ask your doctor or pharmacist if you do not understand how much medicine to take, when to take it, or how often to take it.
- People may need more than one medicine to treat diabetes. Sometime several drugs must be tried.
- Always tell your doctor if you think you are pregnant.
- Always tell your doctor about other medicines you are taking.
- Check with your doctor before taking over-the-counter medicines (from the drugstore, grocery store, and other stores), vitamins, and herbs.
- Do the following to help your medicines work better: eat whole-grains breads and cereal and high-fiber foods like fruits and vegetables, and lean meat, chicken and fish, and low-fat dairy foods; cut back on sodium (salt), saturated fats, trans fats, and store-bought baked goods and snacks; lose weight; quit smoking; reduce or stop drinking alcohol; and be physically active.

Diabetes Medicines

Type	How it works	What you need to know
Sulfonylureas.	Helps your pancreas make more insulin, which lowers your blood sugar.	Sulfonylureas are the diabetes medicine prescribed most often. They are not expensive and have few side effects. They can be taken alone or with another diabetes medicine. If you are allergic to sulfa, you can't take a sulfonylurea.
Metformin.	Decreases the amount of blood sugar produced by the liver; improves insulin sensitivity.	Metformin may be prescribed for people with diabetes who are overweight, because it may help with weight problems. It helps the body use insulin better. Do not drink grapefruit juice or eat grapefruits while taking this medicine.
Alpha glucosidase inhibitor.	Works in the stomach and intestines to slow down the absorption of sugar.	If another medicine doesn't control your blood sugar, your doctor might start you on this kind. This medicine can cause stomach or bowel problems, so let your doctor know if you have any.
Repaglinide.	Taken before meals, stimulates insulin production in the pancreas.	Take this medicine with meals to control blood sugar. Your doctor can tell you how many pills to take depending on the number of meals you eat.
Thiazolidinediones.	Decreases insulin resistance.	These medicines help your body respond better to insulin. If you take this medicine, your doctor will have your liver tested every few months.
Nateglinide.	Taken before meals, stimulates rapid insulin secretion after eating.	Take this medicine with meals to keep your blood sugar level and from getting too high after you eat.

Type	How it works	What you need to know
Insulin.	Controls blood sugar levels.	This medicine is injected under the skin, by spray, or by automatic pump. Work with your doctor to get the right dosage of insulin for you.

Other Types of Medicine:

There are other medicines available to prevent and treat diabetes. If you have high blood pressure or high blood cholesterol, you will need medications to keep these conditions under control to lower your risk of heart disease and heart attack. Talk to your doctor to learn more about a treatment plan.

Resources: *The Merck Manual of Medical Information: 2nd Home Edition*, Beers, Mark H. (Simon and Schuster, Inc., New York, NY, 2003); American Heart Association. www.americanheart.org

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