WE JUMP. WE SHOOT.
WE SAVE.
LEARNING ABOUT HEART HEALTH

American Heart Association
Learn and Live

JUMP ROPE FOR HEART

HOOPS FOR HEART

MIDDLE SCHOOL TEACHER’S RESOURCE GUIDE
Our children are precious. We’d do anything to protect them, care for them and make them happy. We’d also do anything to make sure they live long, healthy lives. That’s why the American Heart Association dedicates so many resources to improving children’s health.

Read on for educational scripts and discussion prompts to help you teach your students about their hearts, nutrition, physical activity and how they can protect their health.

**The Challenge — the Facts**

**Some Are Born With It — Congenital Heart Defects**

Congenital heart defects are the most common form of infant death from birth defects.

- Each year about 36,000 babies are born with a heart defect.
- Each year nearly twice as many children die from congenital cardiovascular defects as from all forms of childhood cancers combined.

Many children are alive today because of treatments not available even 10 years ago. Thanks to your efforts, world-class research and advancements funded by the American Heart Association have saved and changed their lives.

**Others Acquire Risk — An Alarming Trend**

While some kids are born with heart problems, others are at risk of developing them because of poor nutrition and lack of physical activity. Sadly, childhood obesity has reached epidemic proportions.

- Today, nearly one in three American kids and teens is overweight or obese.
- Obesity and being overweight have a negative impact on almost every organ system in the body.
- Children who are overweight from the ages of seven to 13 may develop heart disease as early as age 25.
- Children in their early teens who are obese have arteries similar to 45-year-olds.
- Obesity takes a physical toll and also often causes children to suffer from low self-esteem, negative body image and depression.

**Diabetes and Heart Disease**

Diabetes makes the risk for heart attack especially high. At least 65 percent of people with diabetes die of some form of heart disease or stroke when the disease is left untreated.

- As many as 45 percent of children with newly diagnosed diabetes have type 2 rather than type 1 (previously called juvenile diabetes), which is largely preventable with healthy diet and physical activity.

To learn more, visit americanheart.org/healthierkids.
The Solution — Your Money at Work

Research, Outreach and Education

The funds you help raise are vital for protecting today’s children and future generations from the struggles of heart disease and poor health. We tackle the issues of congenital heart defects, poor nutrition and lack of physical activity by investing in research, professional and public education, and community service programs. Dollars raised through Jump Rope For Heart and Hoops For Heart are used to help children, communities and schools through American Heart Association initiatives such as:

- **World-class Research**: Ongoing discovery of new treatments, technologies and preventions are vital to saving and changing lives. The American Heart Association has committed more than $76.2 million for research projects related to children since 2003.
- **PE in Schools**: Volunteers and staff advocate at the federal and state levels to support quality physical education for all public school children through grade 12.
- **School Nutrition**: We support national- and state-level legislation so schools will offer healthier food choices to students and staff. Getting more fresh fruits and vegetables in schools will help reduce obesity, high blood pressure, diabetes and other risk factors for heart disease and stroke.
- **Childhood Obesity**: Numerous national and community-based programs are educating children and families on the risks of obesity and empowering them to take action against it.
- **CPR in Schools**: CPR can make the difference between the life and death of a loved one. With Be the Beat (bethebeat.heart.org), our children can become the next generation of lifesavers.

WE REACH OUT TO KIDS WHERE THEY LIVE, LEARN AND PLAY.

Vicky Worrell
President, American Alliance for Health, Physical Education, Recreation and Dance

“AAHPERD is privileged to continue the 30-plus year collaboration with AHA. Jump Rope For Heart and Hoops For Heart are first-class service learning events that provide students, staff, and parents the opportunity to volunteer, be physically active and educate students on heart health. At the same time, these events assist with a healthcare initiative that raises funds used for critical medical research related to cardiovascular disease and stroke.”

Nancy Brown
CEO, American Heart Association

“Thank you so much for your support of our Jump Rope/Hoops For Heart program. Our association has set an ambitious 10-year goal to improve cardiovascular health and save lives. Jump Rope/Hoops For Heart is vitally important to reach this goal. By learning about cardiovascular diseases and prevention, students will be able to make better choices to safeguard their health. And by raising funds for research and programs, they will help us all live longer, healthier lives.”

INVESTING IN THE HEALTH AND WELLNESS OF STUDENTS HAS A PROVEN RETURN ON INVESTMENT. NUMEROUS STUDIES LINK HEALTHY LIFESTYLES WITH IMPROVED TEST SCORES, REDUCED ABSENTEEISM, INCREASED ATTENTION SPANS, IMPROVED BEHAVIORAL PERFORMANCE, FINANCIAL BENEFITS, INCREASED SELF-ESTEEM, BETTER ATTITUDES AND HAPPIER, HEALTHIER STUDENTS AND STAFF.
How the Heart Works

Did you know your heart is a muscle? It is! It’s about the size of your fist, and it sits in the middle of your chest, slightly tilted to the left.

Your heart is different from all your other muscles. It’s made of a special type of muscle, called cardiac muscle, not found anywhere else in your body. Cardiac muscle is a type of muscle called involuntary muscle. That means you don’t have to do anything to make it work. For example, you don’t automatically raise your hand in class. You THINK with your brain that you WANT to raise your hand and your brain sends a message to your arm muscles and your hand goes up. Unlike your arm muscles, your heart beats without you thinking about it — it’s involuntary.
The heart is a pump that pushes blood all over the body. The movement of blood through the body is called circulation, and the heart is the pump that makes the circulatory system work. When the heart pumps (or beats), it’s sending blood through the body to pick up waste and deliver oxygen.

There are four rooms in the heart. These rooms are called chambers.

The two right chambers receive blood from all over the body and send it to the lungs to drop off waste from organs and other cells and to pick up oxygen. Once blood leaves the lungs with oxygen, it gets sent back into the left side of the heart, which pumps it back to the body. There is a special wall down the middle of the heart, separating the heart’s right and left sides. This wall is called the septum.

Each side of the heart has two chambers, one on top and one on the bottom. The chambers on the top are called the atria (or atrium, singular). The chambers on the bottom are called ventricles. The atria act as receivers for the heart. The right atrium receives blood from the body, and the left atrium receives blood from the lungs. The atria then pass the blood down to the ventricles, which push it out to the lungs (right) or the body (left). At the exact same time that the ventricles are pushing blood out to the body, the atria are refilling, ready for the next pump. Your heart never takes a break!

You may be wondering how the blood gets from one chamber to another. The heart has four special doors called valves that open to let blood flow into each chamber. These valves are very special because they only let the blood go forward.

So, where does the blood go once it leaves the heart? Blood leaves the heart through the largest blood vessel in the body, the aorta. The aorta sends the blood out all over the body in an elaborate network of tubes called blood vessels. Three types of blood vessels are arteries, veins and capillaries.

- **Arteries** carry blood from the left ventricle away from the heart and deliver oxygen and nutrients to the body. Arteries are red because when blood is full of oxygen, it turns red.
- **Veins** carry blood back to the right atria from the body. Blood returning to the heart in veins carries carbon dioxide and other wastes from the body. Veins are blue, because blood that does not have any oxygen in it is blue.
- **Capillaries** connect arteries and veins. They are the smallest blood vessels in the body. The capillaries have very thin walls with tiny holes (called pores) that allow oxygen and other nutrients to diffuse OUT of the blood and into the cells to feed the body. At the same time, carbon dioxide and other wastes transfer INTO the blood to be carried back to the lungs to be exhaled. Capillaries are where the blood turns from red to blue because oxygen leaves.

**FUN FACTS**

- The heart beats about 100,000 times per day, or 35 million times a year.
- The adult heart pumps about five quarts of blood each minute. That’s about 2,000 gallons per day!
- The human heart creates enough pressure to squirt blood 30 feet!
- When you hear a “heartbeat,” you’re hearing the sound of your heart’s valves opening and closing as they push blood through each of the heart’s chambers.
- A woman’s heart weighs about 8 ounces (about as much as a cup of sugar). A man’s heart weighs about 10 ounces (about as much as a large orange). Women’s hearts beat faster than men’s hearts.
- Your heart muscle contracts and relaxes about 70 times per minute.
- Laughter really is the best medicine. Studies show that the lining of blood vessel walls relaxes for up to 45 minutes after a good laugh, which increases blood flow to the body.
- At rest, the heart works twice as hard as the leg muscle of a sprinting man.

**Visit bethebeat.heart.org for more information and fun facts.**
**HOW THE HEART WORKS**

Just like your other muscles, your cardiac muscles need exercise. Giving your heart regular workouts will keep it pumping strong.

How do you know if your heart is working? By feeling your pulse! As your heart pumps blood through your body, you can feel it pulsing. It’s an up-and-down feeling of the blood vessels, or arteries, close to the skin’s surface in places such as your wrist, neck and upper arm. These places are called pulse points.

What is your pulse? Your pulse tells you how fast or slow your heart is beating — also called your heart rate. Your pulse is the number of times your heart beats each minute (what scientists call “beats per minute” or bpm).

Why is your pulse so important? Your pulse can tell you how well your heart is working. It can be used to help find the cause of problems such as dizziness, fainting, chest pain, shortness of breath or other conditions. If your pulse is too fast or too slow, it can also provide other information about your health.

How do you check your pulse? Checking your pulse is a simple way to find out how fast or slow your heart is beating. You can find your pulse in a few places on your body. The easiest places to check your pulse are your wrist and your neck.

Doctors and scientists say that you need to exercise your heart for at least 60 minutes every day. So, how do you know if you’re giving your heart a good workout? Low-intensity activities don’t require your heart to work as hard, while moderate or vigorous activities can make your heart work harder. Lower-intensity activities (like reading) don’t give your heart as good a workout as moderate or vigorous activities (like running, swimming, or playing lacrosse). A good way to determine if you’re getting a moderate to vigorous workout is if you’re breathing hard and breaking a sweat — that means your heart is really pumping!

After explaining pulse and pulse rate to students, do this quick activity to illustrate what they’ve learned:

Make sure students have been relaxed and calm for 10 minutes. Have them take their resting pulse rate using the instructions below. (Note: A typical resting pulse for 8–12 year-olds is 60–140 bpm.)

Have students do 2 minutes of a high-intensity physical activity such as kangaroo hops from side-to-side over a line on the floor, running in place or around the gym or dancing to music, then check their pulse again.

Ask students what difference they noticed from their resting pulse rate and their active pulse rate. Their active pulse rate should be much higher because their heart was getting a workout!

Remind students that getting their heart beating is how it gets exercise. It’s important to give your heart a workout EVERY DAY to keep it healthy. If you are active until you break a sweat, you’re giving your heart a good workout.

To measure the pulse on your wrist (radial):

1. Hold your hand in front of you.
2. Gently place two fingers of your other hand on the inside of your wrist, at the top. **DO NOT USE YOUR THUMB — IT HAS ITS OWN PULSE.**
3. Move your fingers around until you feel a steady beat.
4. Now count the beats for 15 seconds and multiply that number by 4 to get your pulse. For example, if you counted 20 beats during the 15 seconds, your pulse would be 80 bpm (20 × 4).

To measure the pulse on your neck (carotid):

1. Gently place two fingers (not your thumb) just below your jaw and to either side of your windpipe.
2. Move your fingers around until you feel a steady beat.
3. Count the beats for 15 seconds and multiply that number by 4 to get your pulse. For example, if you counted 20 beats during the 15 seconds, your pulse would be 80 bpm (20 × 4).
HOW THE HEART WORKS

SUDDEN CARDIAC ARREST

What makes the heart beat? It’s electric — no joke! There are some very special cells in the heart that can generate electrical current, and that’s what signals the heart to contract. Starting in the right atrium, a network of nodes and fibers conduct electricity around the heart. The electrical signal from a node causes the right and left atrium to contract at the same time. This squeezes blood down to the ventricles. Then the signal travels down fibers to the left and right ventricles, causing them to contract together. When the ventricles contract, they pump blood out from the heart.

Sometimes the electrical signals in the heart get disrupted. This can keep the heart from pumping properly, which is very dangerous. Sudden cardiac arrest happens when a heart suddenly stops beating normally and a person collapses. CPR can help keep a cardiac arrest victim alive. It helps keep blood flowing to the brain and heart until a shock from an Automated External Defibrillator can be delivered. An AED is a portable, computerized medical device that checks a person’s heart rhythm, recognizes a rhythm that requires a shock and advises the rescuer when a shock is needed. The AED sends a shock of electrical current to the heart to stop the bad rhythm and allow a normal, healthy rhythm to resume.

HANDS-ONLY CPR CAN SAVE A LIFE

If you see someone 8 years or older suddenly collapse, don’t just stand there! Call 9-1-1 and push hard and fast in the center of the chest. Keep pushing hard and fast until an AED arrives and is ready to use, or EMS arrives and takes over care for the victim. It’s called Hands-Only CPR and anyone can do it! You just need to remember two important steps: Call 9-1-1 and push hard and fast on the chest. Remember, this is only for people 8 years and older. Younger kids who collapse suddenly may need the oxygen that full CPR provides. Babies (up to 1 year old) and children (1–8 years old) who are unresponsive most likely have a breathing-related issue. So, a baby or young child who becomes unresponsive needs CPR with breaths until EMS arrives and takes over care for the victim.

In communities with high rates of bystander CPR and effective systems for responding to cardiac emergencies, cardiac arrest survival rates are as high as 46%.

Unless CPR is started immediately following collapse and a shock from an AED is given within the first few minutes, few attempts to bring that person back to life are successful. Unfortunately, only one in three people who have cardiac arrest outside of the hospital get CPR from a bystander. But a person’s chance of survival can double or triple if effective CPR is started right away.

BE THE BEAT

The American Heart Association is helping create the next generation of heart heroes by teaching tweens and teens the simple steps to save a life with Be the Beat.

Kids can find FREE games, music, videos and giveaways — to educate them while they have fun at BeTheBeat.heart.org.

Educators, administrators, school nurses and coaches will find valuable information to start and sustain CPR and AED programs, emergency response planning and other programs that help make our schools safer for our children at BeTheBeat.heart.org/schools.

Check out BeTheBeat.heart.org to learn more about CPR and how to use an AED.

Wrap up this activity with a few discussion questions:

1. Now that you know how important your heart is in your body, does it make you want to take care of it more?
2. What should you do if you see someone suddenly collapse?
3. What is Hands-Only CPR?
4. Where can you go to learn more about Hands-Only CPR and to learn about joining the movement of heart heroes?
5. What does AED stand for and how does it work?
**WHAT IS A HEART ATTACK?**

Use this information to teach kids about heart attack and how to recognize the signs of someone having one.

The heart pumps blood full of oxygen and other nutrients to all parts of the body, but the heart muscle needs oxygen and nutrients too. The arteries that supply the heart muscle with blood are called **coronary arteries**.

In a healthy person, blood flows freely through the blood vessels (arteries and veins). It’s kind of like the plumbing system in your house. When everything is working correctly, water comes through the pipes and gets carried away through drains. Unhealthy habits, like not getting enough physical activity, can cause our internal pipes — our blood vessels — to get clogged. When this happens, fatty deposits called **plaque** build up inside the blood vessel walls. Over time, if enough plaque builds up, the arteries, which are normally flexible and elastic, can become hard. This is called “hardening of the arteries” or **arteriosclerosis**.

When the arteries get hard and clogged up, it causes two problems:

1. The clog leaves less space for blood to flow through the vessel, or totally blocks it.
2. The clog leaves a rough spot inside the artery that actually attracts other gunk, making the clog bigger. This can form a clot. The clot can block the blood flow at that spot or break free from the artery wall and travel until it gets stuck in a narrow space.

If either of these things happens, the artery can’t deliver the oxygen and nutrients to the heart and the muscle starts to die. This is a heart attack.

---

**HEART ATTACK VS. SUDDEN CARDIAC ARREST**

Sudden cardiac arrest is an electrical problem, when the heart suddenly stops beating normally and pumping blood to the brain and vital organs. In most cases, there are no warning signs or symptoms and someone will collapse suddenly. When sudden cardiac arrest occurs, the victim may collapse, doesn’t respond to gentle shaking, stops normal breathing and, after two rescue breaths, still isn’t breathing normally, coughing or moving.

Cardiac arrest strikes immediately and without warning. Victims can go from standing and talking to suddenly flat on the ground.

A heart attack is a “plumbing” problem caused by a blockage in the heart’s blood vessels, causing the heart muscle to die. Symptoms include chest pain; pain in left arm, between shoulder blades, and/or jaw; difficulty breathing; dizziness, nausea and vomiting; and sweating. Usually there is more warning with a heart attack and people have time to get to a hospital while they are still conscious.

When blood flow is severely reduced in coronary arteries (the blood vessels that bring blood to the heart muscle itself), it can cause a heart attack.

Heart attacks, drowning, drug overdose and any problem that prevents someone from breathing can lead to a cardiac arrest.

In a cardiac arrest, seconds count. That person does not have adequate blood pumping to vital organs. Immediate CPR is vital to help keep the person alive until help or an AED arrives.
SIX CONTROLLABLE RISK FACTORS FOR HEART DISEASE

Some things we can’t control, but several key risk factors for heart disease can be controlled through lifestyle choices. Teach students how to reduce their risk for cardiovascular disease by controlling these six risk factors.

Some things about our bodies were passed on to us by our parents through genetics. These are things like what color your eyes are, how tall you are or if you have curly hair. We can’t change these things. Having a family member with certain health problems can increase your risk for having those conditions too.

The good news is, even though some problems can be passed on from your parents, making healthy choices can decrease your chances of developing some diseases.

Here are some things you can work on to lower your odds of getting heart disease:

- **Smoking** — Don’t ever do it. Cigarettes are very bad for your health. Smoking can cause cancer, lung disease and heart disease. Over time, cigarette smoke destroys your lungs and blood vessels, making it hard for blood to deliver oxygen and nutrients to your organs.

- **High blood pressure (hypertension)** — People whose blood pressure is above a normal range are said to have high blood pressure, or hypertension. This causes the heart to pump harder than normal to push blood through the body. High blood pressure has no warning signs, so everyone should have their blood pressure checked regularly. High blood pressure can be reduced by increasing physical activity, making healthy food choices and staying at a healthy weight.

- **High cholesterol** — Too much cholesterol in the blood raises the risk for heart disease. Some cholesterol comes from the food we eat. By eating foods low in fat and cholesterol, we can reduce the amount of bad cholesterol in our bodies.

- **Physical inactivity** — Not getting enough regular physical activity is bad for the heart. Your heart muscle needs to work out to stay in shape, so be physically active for at least 60 minutes every day. Not getting enough regular physical activity is linked to high cholesterol, high blood pressure, diabetes and being overweight.

- **Obesity and overweight** — Being overweight isn’t about how you look on the outside. It can lead to serious problems inside like high blood cholesterol, high blood pressure and diabetes. Eat right and get physically active to maintain a healthy weight!

- **Diabetes** — There are two main types of diabetes, type 1 and type 2. Type 1 diabetes is a problem people can be born with, but type 2 (the most common type) develops later. Being overweight and physically inactive are two things that cause type 2 diabetes. Diabetes can cause problems for the body and increase the risk for heart disease.

These risk factors can be confusing, but by doing three simple things, you reduce your chance for all six of them!

1. Don’t smoke.
2. Eat a healthy diet — lots of colorful fruits and veggies.
3. Get at least 60 minutes of physical activity every day.
**KEEP YOUR HEALTH FROM GOING UP IN SMOKE**

Smoking is the No. 1 cause of preventable death in the United States. Talking to students about the dangers of smoking can help them decide not to use tobacco products. Use the information below to guide your conversation.

In the United States, tobacco kills more Americans than car accidents, murder, AIDS, drugs and fires combined. Smoking cigarettes or using smokeless tobacco (also called dip, snuff or chew) is one of the worst things you can do to your body. Smoking damages nearly every organ in the body, including your heart, and causes heart disease and cancer.

Smoking also causes some gross side effects, such as bad breath, stinky clothes, coughing, yellow teeth and difficulty breathing.

Why is smoking so bad? Tobacco contains a chemical called nicotine that gives smokers a brief pleasant feeling. People get addicted to that good feeling. In addition to the nicotine, tobacco has lots of other poisonous chemicals in it. These toxic substances destroy your body over time, especially your heart and lungs.

Some of the 4,000 chemicals found in cigarette smoke are also found in other familiar things:

- **Acetone** — nail polish remover
- **Hydrogen cyanide** — rat poison
- **Urea** — pee and sweat
- **Methanol** — antifreeze
- **Cadmium** — batteries
- **Hydrazine** — rocket fuel
- **Toluene** — gasoline

The nicotine and other chemicals in cigarette smoke damage blood vessels and make it harder for the blood to move around the body. When blood doesn’t move around freely, your body doesn’t get as much oxygen as it needs. The chemicals in smoke also make your blood sticky and more likely to form a clot, which can result in a heart attack or stroke. Cigarette smoke can also keep your lungs from growing when you’re young, so it’s especially important for kids and teens not to smoke.

Secondhand smoke is the smoke a person breathes from being around someone who is smoking. Some people think secondhand smoke isn’t dangerous, since they aren’t smoking. The truth is, secondhand smoke is harmful to your body. If you are around people who smoke, ask them not to smoke near you. Or try to move away from the smoke.

Wrap up this activity with a few discussion questions:

1. What can you do if someone offers you a cigarette?
2. What is one reason why YOU don’t want to smoke cigarettes?

The American Heart Association offers free tips to quit smoking. Visit [americanheart.org](http://americanheart.org) and type “smoking cessation” or “quit smoking” in the search box.
Peer pressure isn’t the only negative pressure kids may have in their lives. High blood pressure has no symptoms, so it is critical to teach students about the importance of having it checked regularly.

Blood pressure is a measure of how easy or difficult it is for blood to circulate in the body. More specifically, blood pressure is the force the blood puts on the walls of the blood vessels (the tubes that carry blood around the body) when your heart beats. Blood pressure increases when the heart beats and falls when the heart relaxes between beats. Blood pressure is affected by physical activity, rest, the temperature of where you are, emotions, diet and many other factors.

Having normal blood pressure means blood can travel through the body fairly easily. People whose blood pressure is above a normal range are said to have high blood pressure, or hypertension. Hypertension can increase a person’s risk for cardiovascular disease because blood cannot travel as easily and the heart and blood vessels are working harder than normal. Hypertension often runs in families, but maintaining a healthy weight by making healthy food choices and staying physically active for at least 60 minutes per day can help prevent hypertension, even with a family history.

High blood pressure has no warning signs, so it is very important that a doctor, healthcare provider or nurse check your blood pressure regularly.

You’ve probably had your blood pressure checked at the doctor’s office. Doctors and nurses measure blood pressure with a sphygmomanometer (sfig-moh-muh-nom-i-ter). It’s a device that looks like an armband or cuff with a rubber ball on the end. The cuff usually wraps around one arm with Velcro and the ball is squeezed, forcing air to tighten the cuff. When the cuff is pumped up, it presses on a large artery in the arm, stopping the blood flow for a moment. Blood pressure is measured as the air is gradually let out of the cuff, which allows blood to flow through the artery again. The doctor or nurse will put a stethoscope near the cuff to hear the first pulse as the blood flows through.

The systolic is the pressure on the artery wall when the heart beats; the diastolic is the pressure between heartbeats. Your blood pressure is written as a number like this: 110/75 (usually stated as 110 over 75). The first number is the systolic pressure (this number is always larger because it is when the pressure is greatest, when the heart pumps). The second number is the diastolic pressure.

If your blood pressure is low, your heart may not be working properly. If your blood pressure is high, then narrow arteries might be making the heart work harder than it should.

Some people need to take medicine to keep their blood pressure normal. Other people can keep their blood pressure normal by eating a healthy diet with lots of fruits and vegetables and by getting enough physical activity every day.
Encouraging some children to be physically active can be a challenge, especially if they don’t enjoy some activities or don’t consider themselves athletic. It’s important to help all kids find an activity they enjoy and not to think of exercise as a punishment. Use the information below to teach students about the benefits of physical activity and motivate them to move more.

Getting physically active is an important part of leading a healthy life. Physical activity has lots of benefits for your body and mind. Getting regular physical activity keeps your heart muscle healthy and strong and helps you build healthy muscles, bones and joints. It's also a good way to help manage and maintain a healthy body weight. It can help you sleep better, too.
Talking with students about weight is a very sensitive discussion. If you decide to talk to your students about obesity, remember to focus on the fact that weight is an important indicator of health. Keep the focus away from looks to avoid hurting confidence or self-esteem of any student. Avoid suggestions related to a specific weight. Kids should strive for a healthy lifestyle focused on positive habits like being physically active and eating lots of fruits and vegetables, not achieving a specific weight.

Being overweight is when a person has more body fat than is healthy. And right now in the United States nearly one in three kids and teens is considered overweight. Nearly two out of three adults are overweight. That’s a lot of Americans who aren’t taking very good care of their bodies.

Being overweight is dangerous for your health. It can lead to serious health problems like diabetes, heart disease, high blood pressure, asthma or other breathing problems, and even some types of cancer.

The good news is, making small changes in daily life can add up to have a big impact on your health. Here are some things we can ALL do to keep our bodies strong:

- Get at least nine hours of sleep at night.
- Drink plenty of water every day. Drink very little soda and other sugary drinks.
- Get at least two to three servings of low-fat or fat-free dairy (milk, cheese, yogurt) every day.
- Get physically active for at least 60 minutes every day.
- Eat at least five servings of fruits and vegetables every day.
- Limit TV, computer and video games to less than two hours every day (not counting school work).
A healthy diet is one of the best weapons against heart disease. Good nutritional habits established early in life stay with us for the rest of our lives. Use the information below to talk to students about eating right. Help them learn how to make healthy choices and create good habits early on!

Why do you put gas in a car? To give it energy so it can move! Our bodies are like cars; we need fuel to move. Food is the fuel our bodies use.

Every food we eat has a certain amount of energy in it. We call the energy in food calories. One calorie is one unit of energy. So when you read on a food label or hear people say a food has 100 calories, they’re talking about how many units of energy are in that food.

Calories aren’t bad; we all need calories for energy. Everything the body does takes a certain number of calories from food for fuel (or energy). Your body needs energy just to operate, to do things like make your lungs breathe and your heart beat. Different activities like running, dancing and skateboarding also require energy.

What happens if you put more gas in your car than it can hold? The gas tank overflows.

When people eat more calories (food) than the body needs for energy, the extra energy gets stored as fat. That’s how people gain weight. To keep your body in balance, you need to match the amount of energy you put in (food or calories) with the amount of energy you burn off (how physically active you are). This is called energy balance.

In addition to making sure you’re eating the right number of calories to fuel your body, you need to make sure to get the right type of foods and amounts for your individual needs. Each type of food helps your body in a different way so it’s important to choose foods of each type every day:

**Grains.** Choose whole-grain or whole-wheat products. They have more fiber than white flour products (like white bread) and white rice. Eat 6–7 ounces every day, mostly from whole-grain, high-fiber foods, like whole-grain breads and cereals, and pasta.*

**Vegetables.** Veg out on vegetables — they’re an excellent source of vitamins, minerals and fiber. Eat 2–2½ cups every day.* Try carrots, spinach, green beans and broccoli.

**Fruits.** Like vegetables, fruits are a good source of vitamins, minerals and fiber. They’re also a great way to satisfy a sweet tooth, thanks to their natural sugars. Eat 2 cups every day.* Reach for bananas, apples, pears, peaches and strawberries.

**Fats, oils and sweets.** Limit fats, oils and sweets as much as possible. Get 3 teaspoons of oils per week. Corn oil, canola oil, olive oil and safflower oil are good choices.

**Dairy.** Dairy products like milk, yogurt and cheese are an important source of calcium, which keeps your bones strong. Make sure to pick fat-free or low-fat dairy products to avoid extra fat that you probably don’t need. Get 3 cups (fat-free or low-fat) every day.* Check out your fridge for some fat-free or low-fat milk, cheese or yogurt.

**Meat, Poultry and Fish.** Meat, skinless poultry and fish are great sources of protein, which gives you energy. Be sure to pick lean meats to avoid getting too much fat. Eat 3–6 ounces every day and eat fish twice a week.* You can get your protein from chicken, turkey, fish and lean beef.

**Nuts, Seeds and Legumes.** Eat 4 servings per week.* (1 serving=1½ ounces of nuts, ½ ounce of seeds or ½ cup of cooked legumes.)

*Based on an 1,800-calorie diet.
Learning to read a nutrition label is an important part of making healthy food decisions. For the following activity, bring in some food packages with labels. Students can compare them as you teach them about some of the key things to look for on a label. (It’s OK if the packages are empty!)

Reading the label is really the only way to know what you’re eating. Here are some things to look for on a food label to make healthy choices:

**Serving Size**
Check the serving size, especially how many servings there are in the container. If there are two servings in the package and you eat the whole thing, you’re eating double the calories and other nutrients that are listed in the amount per serving on the label.

In general, when you think about the amount of calories in a food per serving, remember that for a 2,000-calorie diet:

- 40 calories per serving is considered low;
- 100 calories per serving is considered moderate; and
- 400 calories or more per serving is considered high.

**Saturated and trans fat**
Try to minimize saturated and trans fat. These are both bad fats that clog arteries. You need to limit your total fat to no more than 25–35 percent of your total daily calories.

**Cholesterol and Sodium**
The less cholesterol and sodium you eat, the better. The latest recommendation for sodium is less than 2,300 milligrams per day for adults and even less for kids, depending on their age.

**Sugar**
Try to keep sugar low. More sugar means more calories. And sugar doesn’t contain any vitamins or minerals.

**Fiber, Vitamins and Minerals**
Make sure you get 100 percent of the fiber, vitamins (including A and C), calcium, iron and other nutrients you need every day.

---

### Nutrition Facts

<table>
<thead>
<tr>
<th>Serving Size</th>
<th>½ cup (114g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Servings Per Container</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Amount Per Serving

<table>
<thead>
<tr>
<th>Calories</th>
<th>90</th>
<th>Calories from Fat 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Daily Value*</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Total Fat</td>
<td>3g</td>
<td>5%</td>
</tr>
<tr>
<td>Saturated Fat</td>
<td>0.5g</td>
<td>3%</td>
</tr>
<tr>
<td>Polyunsaturated Fat</td>
<td>2g</td>
<td></td>
</tr>
<tr>
<td>Monounsaturated Fat</td>
<td>0.5g</td>
<td></td>
</tr>
<tr>
<td>Cholesterol</td>
<td>0mg</td>
<td>0%</td>
</tr>
<tr>
<td>Sodium</td>
<td>200mg</td>
<td>8%</td>
</tr>
<tr>
<td>Total Carbohydrate</td>
<td>13g</td>
<td>4%</td>
</tr>
<tr>
<td>Dietary Fiber</td>
<td>3g</td>
<td>12%</td>
</tr>
<tr>
<td>Sugars</td>
<td>3g</td>
<td></td>
</tr>
<tr>
<td>Protein</td>
<td>3g</td>
<td></td>
</tr>
</tbody>
</table>

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

<table>
<thead>
<tr>
<th>Calories</th>
<th>2,000</th>
<th>2,500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fat</td>
<td>Less than 65g</td>
<td>80g</td>
</tr>
<tr>
<td>Sat Fat</td>
<td>Less than 20g</td>
<td>25g</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>Less than 300mg</td>
<td>300mg</td>
</tr>
<tr>
<td>Sodium</td>
<td>Less than 2,400mg</td>
<td>2,400mg</td>
</tr>
<tr>
<td>Total Carbohydrate</td>
<td>300g</td>
<td>375g</td>
</tr>
<tr>
<td>Fiber</td>
<td>25g</td>
<td>30g</td>
</tr>
</tbody>
</table>

**Calories per gram:**

- Fat 9
- Carbohydrate 4
- Protein 4
Because of the obesity epidemic in America, the U.S. Centers for Disease Control and Prevention estimates that one in three children born in 2000 will develop type 2 diabetes in their lifetime. In vulnerable populations such as low-income or minority groups, that number increases to one in two. Additionally, 65 percent of people with diabetes die from some form of heart disease or stroke. Use the information below to teach students about the severity of diabetes and what they can do to prevent it.

In diabetes, the body has problems with a chemical hormone called insulin. Insulin is important to the body because it helps turn sugar and other food into energy the body can use. When the body has a problem with insulin, it causes too much sugar to build up in your blood. Then your body doesn’t get the energy it needs to function properly and it starts to shut down.

There are two main types of diabetes, type 1 and type 2. Type 1 diabetes means the body does not make enough insulin to function; it is something people can be born with. But type 2 (the most common type) develops in a person over time because of bad habits.

Being overweight and not getting enough regular physical activity are two bad habits that can lead to developing diabetes. People with type 2 diabetes are at risk for problems with almost every part of their body if they don’t take good care of themselves. Some of these things are:

- Heart attack
- Stroke
- High blood pressure
- Eye damage and blindness
- Kidney damage
- Foot damage, even foot amputation
- Hearing problems

To reduce your chances of developing type 2 diabetes, make sure to eat a healthy diet and get at least 60 minutes of physical activity every day.

**Diabetes Warning Signs**

- Always being thirsty
- Always being tired
- Always being hungry
- Blurry vision
- Going to the bathroom a lot
- Losing weight quickly

If you notice any of the warning signs, tell a parent, teacher or doctor right away!
Promoting physically active lifestyles to our children is more important than ever. Overweight children and adolescents are at risk for significant health problems both during their youth and as adults. For instance:

• Overweight children and adolescents are more likely than other children and adolescents to have risk factors associated with cardiovascular disease (e.g., high blood pressure, high cholesterol and type 2 diabetes).

• Overweight children and adolescents are more likely to become obese as adults.

• Studies document the link between obesity and poor school performance and unhealthy or risky behaviors such as alcohol use, tobacco use, premature sexual behavior, inappropriate dieting practices and physical inactivity.

• Overweight children and adolescents may experience other health conditions associated with increased weight, which include asthma, liver problems and sleep apnea.

• Obesity puts children at long-term higher risk for chronic conditions such as stroke; breast, colon and kidney cancers; musculoskeletal disorders; and gall bladder disease.

Hoops For Heart is a national fund-raising event created by the American Heart Association and the American Alliance for Health, Physical Education, Recreation and Dance. The basketball event encourages middle school students to join other students nationwide to fight heart disease and stroke. By raising funds for the American Heart Association, participants learn about community service and become engaged in learning more about how to care for their bodies and establish heart-healthy lifestyles at a young age. The event is conducted in school by physical education instructors or coaches and can be scheduled whenever it’s most convenient.

Once you register, you’ll receive an event kit with everything you need to conduct a successful Hoops For Heart event:

• Step-by-step instructions on scheduling, promoting and conducting the event

• Educational modules for heart-healthy curriculum to support heart awareness with the event

• Hands-on training and support from an experienced American Heart Association staff person or volunteer
EDUCATIONAL WEB RESOURCES FOR TEACHERS

www.americanheart.org/jump
The Jump Rope For Heart website provides information for teachers, students and parents about the Jump Rope For Heart program. Whether you need jump rope skill instructions or tips for making your event a success, you can find the information here.

www.americanheart.org/hoops
The Hoops For Heart website provides event resources for coordinators, such as tournament setup suggestions or forms needed to order thank-you gifts.

www.americanheart.org
The American Heart Association website offers a wide variety of valuable information including current research developments, detailed explanations for many diagnoses and heart-healthy tips.

www.BetheBeat.org
This site offers free games, videos, songs and prizes to help kids learn the simple steps to save a life…while they have fun!

www.BetheBeat.org/schools
This site offers free resources for educators, school nurses and administrators to help start and sustain CPR programs in school.

www.americanheart.org/healthierkids
These tools for parents, teachers and schools offer ideas, suggestions and resources to help all kids develop lifelong healthy habits.

www.americanheart.org/NFLPlay60Challenge
The American Heart Association and National Football League have teamed up to create the NFL PLAY 60 CHALLENGE, inspiring middle school students to become physically active for at least 60 minutes every day! Visit the website for in-school ideas for promoting physical activity, classroom activities and physical activity break ideas.

www.aahperd.org
American Alliance for Health, Physical Education, Recreation and Dance is the American Heart Association’s partner in Jump Rope For Heart and Hoops For Heart. AAHPERD is the largest organization of professionals supporting and helping those involved in physical education, leisure, fitness, dance, health promotion and education and all specialties related to achieving a healthy lifestyle.

www.aahperd.org/naspe/physicalbest
Physical Best is a comprehensive health-related fitness education program of AAHPERD for use in conjunction with existing K–12 physical education curricula.

www.aahperd.org/naspe/stars
STARS is a program developed by the National Association for Sport and Physical Education. This awards program features five levels of achievement to recognize outstanding physical education programs in K–12 schools across America. This is an opportunity to gain national recognition for your school and your PE teachers by documenting the excellence of your PE program.

www.pcecentral.org
PE Central is ideal for PE teachers. The site offers physical education curricula, program ideas and resources for teaching children and youth.

www.naspe/stars
STARS is a program developed by the National Association for Sport and Physical Education. This awards program features five levels of achievement to recognize outstanding physical education programs in K–12 schools across America. This is an opportunity to gain national recognition for your school and your PE teachers by documenting the excellence of your PE program.

www.healthychoices.org
The Healthy Choices for Kids nutrition education program was created by the growers of Washington state apples. This program consists of four separate volumes: Eat a Wide Variety of Foods; Choose a Healthy and Active Lifestyle; Eat Plenty of Fruits, Vegetables & Grains; and Choose Healthy Snacks.

www.nutritionexplorations.org/index.asp
Sponsored by the Dairy Council, Nutrition Explorations is a great resource for teachers. It provides nutrition lessons, nutrition news and FAQs, grade-level ideas and a teacher idea exchange area. The site also has an extensive section for parents, kids and even the cafeteria or food service staff.

www.naspe/physicalbest
Physical Best is a comprehensive health-related fitness education program of AAHPERD for use in conjunction with existing K–12 physical education curricula.

www.kidsnutrition.org
The USDA/Agricultural Research Service’s Children’s Nutrition Research Center site contains research, news, calculators (including children’s BMI calculator), a Portion-Distortion Quiz and an interesting article on how parents’ attitudes help shape kids’ “athletic identity.” The site also has a poster gallery where you can download and print materials.

www.bam.gov/teachers/index.htm
BAM! Body and Mind is a children’s website of the Centers for Disease Control and Prevention. This teachers’ resource center helps you to incorporate CDC health, safety and science topics into your classroom. The site also offers your students interactive content to investigate topics for school or for a personal interest.

www.discoverynews.com
The Discovery Channel’s online health resource contains news, health tools, information on diseases and conditions, diet and fitness, and even podcasts.
**EDUCATIONAL WEB RESOURCES FOR STUDENTS**

**www.kidshealth.org**

KidsHealth is the largest and most-visited site on the Web providing doctor-approved health information about children from before birth through adolescence. Created by The Nemours Foundation’s Center for Children’s Health Media, KidsHealth provides families with accurate, up-to-date and jargon-free health information they can use. The site offers games and activities for kids as well as advice for teens.

**www.healthyfridge.org**

A website devoted to bringing awareness to the importance of healthy eating habits and developing those healthy habits at an early age. The site offers fun activities and information for parents and teens.

**www.nutritionexplorations.org/kids/main.asp**

The Dairy Council’s site is filled with games, activities, contests, a kids’ panel, recipes and fun links. It helps kids explore the world of nutrition and learn healthy eating habits.

**www.mypyramid.gov/kids/index.html**

This site contains the principles of the latest Food Pyramid worded for kids. It has resources for parents, games for kids and information for teachers. There are posters to download and tips on nutrition and physical activity.

**www.bam.gov**

BAM! Body and Mind is a children’s website of the Centers for Disease Control and Prevention. This site has an interactive Create Your Own Fitness Calendar feature for kids to make a personalized calendar of the activities they are planning to do as well as a recipe finder for healthy snacks. There are also activity cards that show how different activities affect the body.

**ADVOCACY WEB RESOURCES**

**www.americanheart.org/yourethecure**

You’re the Cure is the American Heart Association’s nationwide network of people dedicated to finding a cure for heart disease and stroke. You’re the Cure when you speak up for vital research funding, or when you advocate for public policies that increase physical activity and improve nutrition in schools. You’ll get everything you need to succeed, including a Welcome Packet to get you started. Timely action alerts ask you to call, write or visit policymakers when an important issue is being decided.

**www.nchealthyschools.org/docs/schoolhealthadvisorycouncil/advisorycouncilsmanual.pdf**

The North Carolina Healthy Schools Program has put together a comprehensive guide to create effective school health advisory councils.

**www.walkinginfo.org/problems/**

Walkinginfo.org has a checklist to determine if your neighborhood is a friendly place to walk. It will also give you suggestions on how to fix problems that you find.

**http://member.aahperd.org/advocacy**

The AAHPERD Legislative Action Center provides information and resources needed to address the health, physical activity, dance and sport issues being debated on Capitol Hill. In addition, this site serves as an election, media and training resource.

**www.tobaccofreekids.org**

This site by the Campaign for Tobacco-Free Kids offers information on state and federal initiatives, research, facts and special updates on how to keep kids from trying cigarettes.
The 2004 reauthorization of the Child Nutrition Program required all districts participating in the National School Lunch Program to create a local wellness policy that addresses nutrition and physical activity by the start of the 2006–07 school year.

In addition, this federal legislation mandated that a committee be formed to create the local policy. Many states also require the formation of local school wellness councils or school health advisory councils. Wellness councils bring school staff, families, students and community members together to address pressing student health issues.

Interested in getting involved in your school’s wellness efforts? The Alliance for a Healthier Generation Healthy Schools Program has the resources you need to start, lead or join a wellness council. Go to healthiergeneration.org/schools/wellness/ for FREE information, tips, templates and tools.

Still have questions? E-mail the Healthy Schools Program at schools@healthiergeneration.org.