



American  
Heart  
Association®



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



American Alliance for  
Health, Physical Education,  
Recreation and Dance

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**MIDDLE SCHOOL TEACHER'S RESOURCE GUIDE**

# THE AMERICAN HEART ASSOCIATION AND YOU!

## WORKING FOR KIDS' HEALTH

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.

**WITH YOUR SUPPORT, WE CAN HELP PROTECT AND IMPROVE CHILDREN'S HEALTH. YOUR EFFORTS TO EDUCATE YOUR STUDENTS AND RAISE FUNDS FOR WORLD-CLASS RESEARCH AND OUTREACH ARE VITAL TO IMPROVING KIDS' LIVES.**

### The Challenge — *the Facts*

#### Some Are Born With Them — *Congenital Heart Defects*

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

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

Many children are alive today because of treatments that were not available even 10 years ago. Thanks to your efforts, research and medical advances funded by the American Heart Association have saved and improved countless lives.

#### Others Acquire Risk — *An Alarming Trend*

While some kids are born with heart problems, others develop them because of poor nutrition and lack of physical activity. Sadly, childhood obesity has reached epidemic proportions. New science suggests that heart disease prevention must begin in childhood.

- Today nearly one in three American youths under age 19 is overweight or obese.
- Being obese and overweight negatively impact almost every organ system in the body.
- Children who are overweight from ages 7 to 13 have a greater risk of developing heart disease as early as age 25.
- Studies have shown that some children in their early teens who are obese have arteries similar to 45-year-olds.
- Obesity and overweight takes a physical toll and often causes children to suffer from low self-esteem, negative body image and depression.
- Parents regard childhood obesity as the No. 1 health concern in the United States, topping drug abuse and smoking.

#### 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 their diabetes is left untreated.

Up to 45 percent of children with newly diagnosed diabetes have type 2 disease, which is largely preventable with a healthy diet and physical activity.

## The Solution — *Your Money at Work*

### Research, Outreach and Education

The funds you help raise are vital for protecting children today and in the future from the ravages of heart disease and poor health. We are fighting the threats of congenital heart defects, poor nutrition and lack of physical activity by investing in research, professional and public education, and community service programs. We use dollars raised through Jump Rope For Heart and Hoops For Heart to help children, schools and communities through initiatives such as:

- Cutting-edge research. Ongoing discovery of new treatments, technologies and preventions are vital to saving and changing lives. Since 2003, the American Heart Association has committed more than \$76.2 million for research projects related to children.
- Keeping PE in schools. Volunteers and staff urge lawmakers at the federal and state levels to support quality physical education for all public school children through grade 12.
- Better nutrition in schools. 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.
- Fighting childhood obesity. Numerous national and community-based programs are educating children and families about the risks of obesity — and empowering them to take action against it.
- Teaching CPR in schools. CPR can be the difference between life and death for a loved one. We offer several courses and awareness programs to train middle school and high school students in CPR.



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



#### **Brad Strand**

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

*"Funds raised through participation in Jump Rope For Heart and Hoops For Heart help children with special hearts and provides funds for cardiovascular and heart disease research. Participation in the program helps students, teachers and parents stay physically active and learn about heart disease. AAHPERD is honored to continue its long collaboration with the American Heart Association."*

#### **Nancy Brown**

CEO, American Heart Association

*"Thank you so much for your support of our Jump Rope/Hoops For Heart programs. Our association has set an ambitious 10-year goal to improve the entire nation's cardiovascular health and save lives. Jump Rope/Hoops For Heart are vitally important to reaching 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, your students will help us all live longer, healthier lives."*

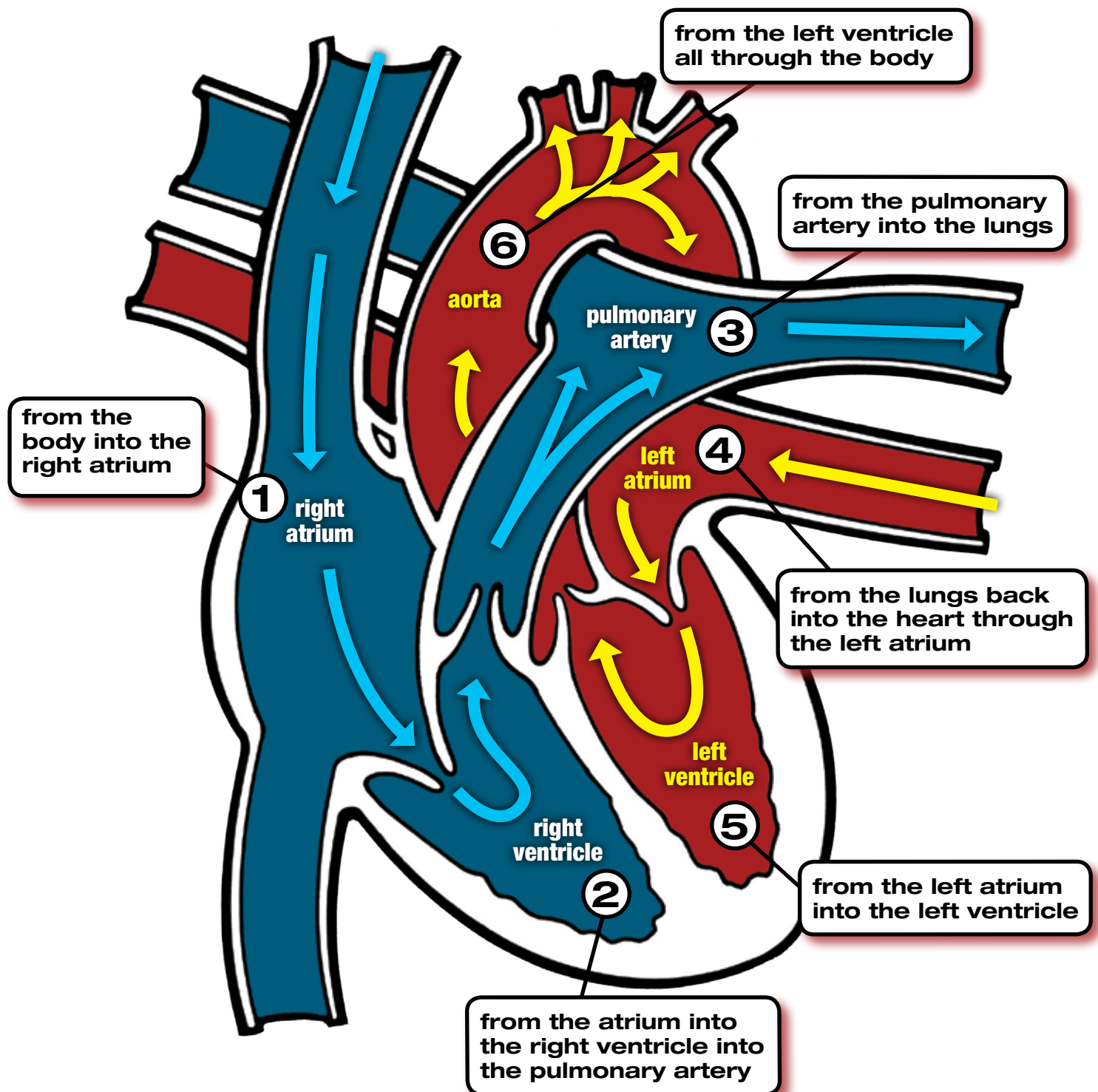


Investing in the health and wellness of students has a proven return on investment. Numerous studies link healthy lifestyles with improved test scores, reduced absenteeism, increased attention spans, improved behavioral performance, financial benefits, increased self-esteem, better attitudes and happier, healthier students and staff.

**This guide contains educational scripts and discussion prompts to help you teach your students about their hearts, nutrition, physical activity and how they can protect their health. Worksheets and handouts for these activities can be found at [heart.org/hoops](http://heart.org/hoops) in the Additional Resources links.**



# THE HEART AND HOW IT WORKS



You might have heard people refer to your heart as an organ, but it's also a muscle. Your heart is different from all your other muscles. It's made of a special type of muscle not found in any other part of your body — cardiac muscle.

The heart is a pump about the size of your fist that pushes blood all through the body. The movement of the blood throughout the body is called **circulation**, and the heart makes the **circulatory system** work. When the heart pumps (or beats), it's pushing blood through the body to pick up waste and deliver oxygen.

**FUN FACT: MOST PEOPLE THINK THE HEART IS LOCATED IN THE LEFT PART OF THE CHEST, BUT IT'S ACTUALLY IN THE MIDDLE OF THE CHEST. IT'S JUST SLIGHTLY TILTED TO THE LEFT.**

(Use the diagram on the facing page to identify the parts of the heart described below.)

The heart has four separate areas, like little rooms. They're called **chambers**. The right side and left side of the heart are divided by a wall called the **septum**. The two chambers on the right side receive blood from all over your body and send the blood to your lungs. There, it releases waste from the organs and cells and picks up oxygen. Then the blood leaves the lungs and goes back into the heart through the left side, and from there it's pumped back throughout your body.

The heart's top two heart chambers together are called the **atria** (or **atrium**, singular). The right atrium receives blood from the body; the left atrium gets blood from the lungs. The heart's bottom chambers are called the **ventricles**. They push the blood out of the heart. The heart's upper and lower chambers have special doors called **valves**; the valves are one-way doors that only allow the blood to travel forward. As the ventricles push the blood out, the atria are refilling and this process repeats over and over again. Your heart never stops.

### When the Blood Leaves the Heart

The heart circulates blood through an elaborate network of tubes called **blood vessels**. The blood leaves the heart through the largest blood vessel in the body, called the **aorta**. The aorta sends the blood all through your body through smaller and smaller blood vessels.

One type of blood vessel is called an **artery**. Arteries carry blood away from the heart through the left ventricle and deliver oxygen and nutrients through the body. Arteries look red because they carry blood that's full of oxygen, and oxygenated blood is bright red.

Another type of blood vessel is called a **vein**. Veins carry blood from all through the body back to the heart via the right atria. Veins are bluish because the blood in them has carbon dioxide and other wastes rather than oxygen.

The third type of blood vessel is called a **capillary**. Capillaries connect arteries and veins. They are the smallest blood vessels in the body. The capillaries have very thin walls and tiny holes (called pores) that allow oxygen and other nutrients to disperse 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 eliminated when we exhale. Capillaries are where the blood turns from red to blue because of the oxygen exiting the blood.

**FUN FACT: YOUR HEART BEATS WITH ENOUGH STRENGTH TO SHOOT BLOOD 30 FEET.**



**Fun Fact: If you laid out the blood vessels of your body in a straight line, it would be more than 6,000 miles long. They could wrap around the world twice.**

# THE HEART AND HOW IT WORKS

## Can You Feel Your Heart Beat?

Note to teachers: Help your students learn how their pulse rates show that being active gets their hearts pumping!

**FUN FACT: YOUR HEART BEATS ABOUT 35 MILLION TIMES A YEAR!**

## Your Pulse: Checking Out Your Heart

How do you know if your heart is working? You know by feeling your **pulse**. As your heart pumps blood through your body, you can feel the blood pulsing in your wrist, neck and upper arm. These places are called **pulse points**.

Your pulse shows you how fast or slow your heart is beating. This is called your heart rate. Your **heart rate** is the number of times your heart beats in a minute. Your heart rate is important because it's one of the ways to tell how well your heart is working.

## Heart at Work

Do you remember that your heart is made up of cardiac muscle? Just like other muscles, your heart muscle needs exercise. You need to exercise your heart for at least 60 minutes a day. Low-energy activities (like sleeping, reading or watching TV) don't give your heart as good a workout as "active" activities (like running, swimming or playing basketball). If you're breathing hard and starting to sweat, that means you're giving your heart and body a good workout.

## ACTIVITIES

### Activity: Resting Heart Rate, Active Heart Rate

Materials: A clock or watch with a sweep second hand, paper and pen/pencil for each student.

(Note: A typical resting pulse rate for ages 10 to adult is 60-100 beats per minute.)

Objective: For students to compare their resting heart rate to their active heart rate.

1. Make sure students have been calm for at least 10 minutes.
2. Have students find their pulse. The easiest place to check your pulse is on the inside of your wrist. To measure the pulse on your wrist, hold your hand in front of you with the palm up. Gently place two fingers of your other hand at the top of your wrist, near where your hand starts, on the outside edge of your wrist. Do not use your thumb because it has its own pulse. Move your fingers around until you feel a steady beat.
3. When everyone has found their pulse and has fingers on it, have students silently count their heart rate for the next 15 seconds as you keep time on the watch or clock.
4. Have students write down the number of times their heart beats in 15 seconds.
5. To find their resting heart rate, have students multiply the number of beats they counted in 15 seconds by 4 to get their beats per minute. For example, if you counted 20 beats during the 15 seconds, your pulse would be 80 beats per minute because  $20 \times 4 = 80$ .
6. Have students do two minutes of high-intensity physical activity such as skipping rope, running in place, running around the gym or dancing to fast music. Repeat steps 2-5.
7. Have students write down their active heart rates.

**FUN FACT: WOMEN'S HEARTS BEAT FASTER THAN MEN'S HEARTS.**

Discussion: Ask students what difference they noticed between 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 to beat faster is how it gets exercise and that it's important to give your heart a workout every day to keep it healthy.

### Additional Activities: Heart Math

Use students' resting vs. active heart rates for a graphing exercise. Use heart rate data to practice percentages. Use heart rate data for range, mean, median and mode exercises.

#### Activity: Parts of the Heart Word Search

*Note: This activity can be done in school or as homework.*

Materials: Parts of the Heart Word Search sheet, unlabeled diagram of the heart

Objective: For students to become more familiar with the terminology of the heart and be able to identify the parts of the heart

1. Instruct students to find and circle the parts of the heart words in their worksheets.
2. Words can go across in either direction, up and down, and diagonally or backward.
3. Have students label the parts of the heart using the searched words.

#### Activity: Creative Writing: The Incredible Journey of Blood Through the Heart

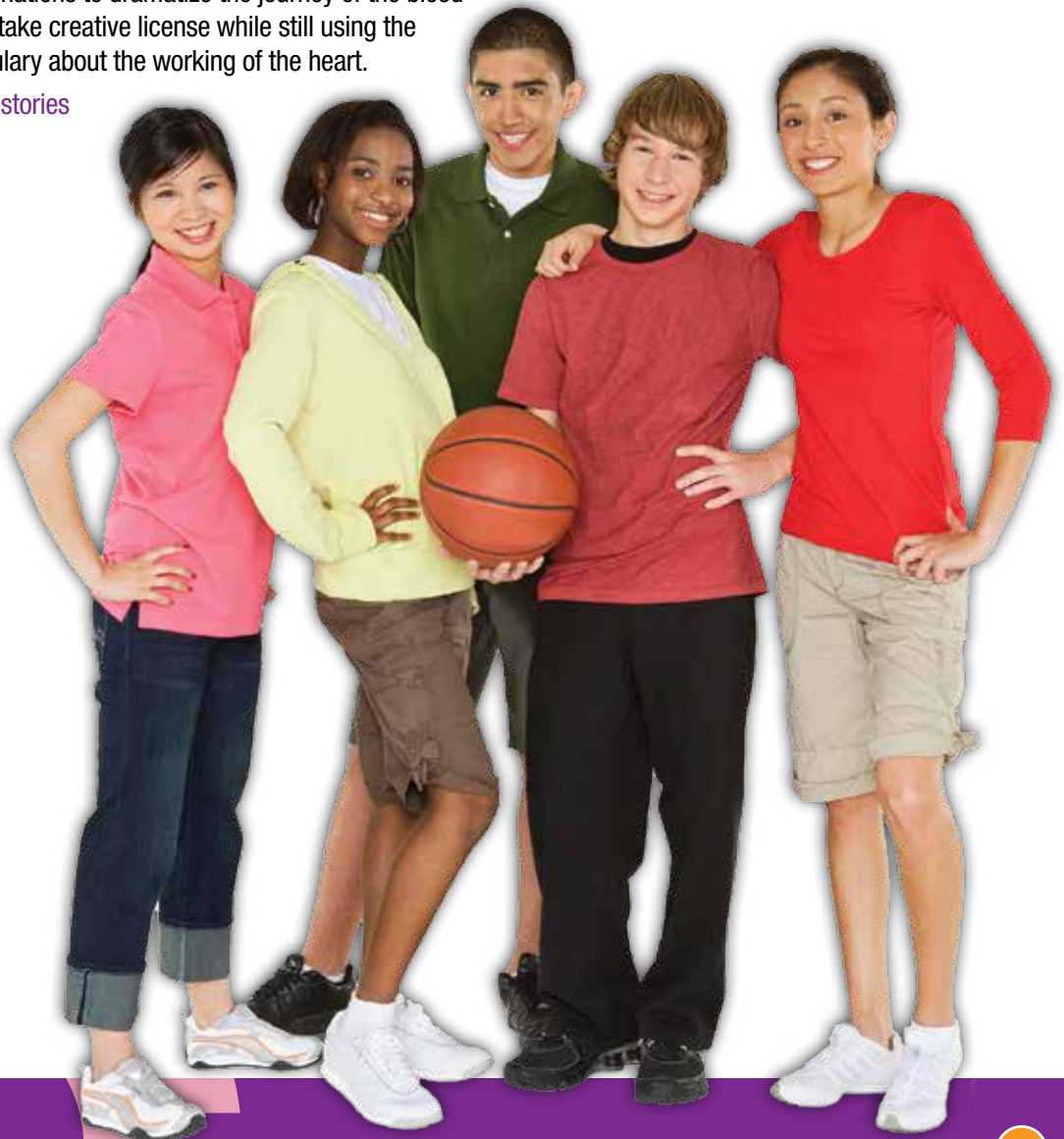
Materials: Pen and paper or computer for the students, or this activity can be done as homework.

Objective: For students to demonstrate their knowledge of how the heart works and to use how the heart works as the basis for a creative writing exercise.

1. Briefly review the working of the heart.
2. Ask students to use their imaginations to dramatize the journey of the blood in a story. Students are free to take creative license while still using the correct information and vocabulary about the working of the heart.

*Discussion: Have students share their stories with the class.*

**FUN FACT: DURING EXERCISE, IT TAKES 10 SECONDS FOR BLOOD TO TRAVEL FROM YOUR HEART TO YOUR BIG TOE, AND BACK AGAIN.**



# WHY IS A HEALTHY HEART SO IMPORTANT?

## Questions for Discussion

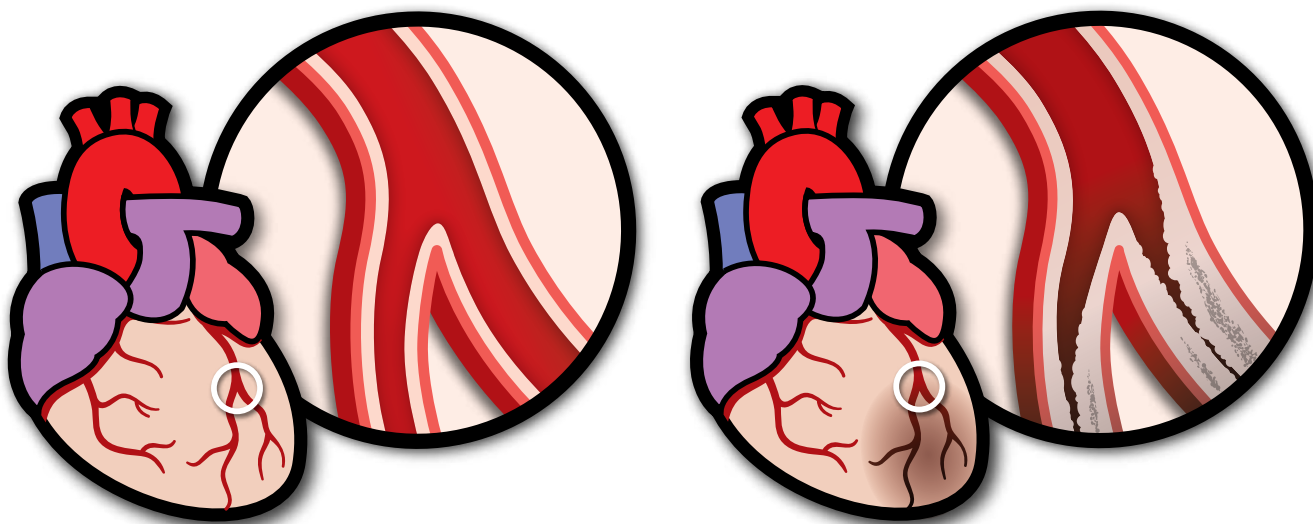
1. What can happen to your heart if you don't keep it healthy?  
How do you know that?
2. Do you know of anyone who has dealt with heart disease?  
Tell us about them.

**SAD FACT: IN OUR COUNTRY, HEART DISEASES AND STROKE KILL ABOUT 650 MORE PEOPLE EACH DAY THAN ALL TYPES OF CANCER COMBINED.**

## A Heart Attack Can Happen

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 to keep it working are called **coronary arteries**.

In a healthy person, blood flows freely through the blood vessels (arteries, capillaries and veins). Over time, unhealthy habits like not getting enough physical activity or not eating a healthy diet can cause 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**.



The other thing that happens when plaque builds up inside the blood vessels is that the blood flow can be partly or totally blocked in the arteries supplying the heart muscle. If the heart muscle can't get the oxygen and nutrients it needs, it starts to die. This is called a heart attack.

It's good to know and remember these warning signs of a heart attack:

- 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.
- Pain or discomfort in one or both arms, the back, neck, jaw or stomach.
- Shortness of breath, with or without chest discomfort.
- Other signs such as breaking out in a cold sweat, nausea or lightheadedness

**Call 9-1-1 right away if you or someone you know has any of these warning signs!**



## 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 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. Cardio Pulmonary Resuscitation (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 (AED) 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.

## 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.

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.

## 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](http://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](http://BetheBeat.heart.org/schools).

Check out [BetheBeat.heart.org](http://BetheBeat.heart.org) to learn more about CPR and how to use an AED.

Then wrap up 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?



# WHY IS A HEALTHY HEART SO IMPORTANT?

## A Stroke Can Happen

A stroke happens when a blood vessel that carries oxygen to the brain gets blocked or bursts. When that occurs, part of the brain can't get the oxygen it needs, so it starts to die. Without the right medical attention, a stroke can cause major damage to the brain. People who have suffered a stroke may have long-term problems speaking, seeing or moving normally. They can even die. That's why getting the help of a doctor or hospital right away is so important.

People at the most risk for a stroke are over age 55, don't eat a healthy diet, are not regularly physically active, and might be overweight or have other medical problems (such as high blood pressure or heart disease) that may lead to stroke or heart disease.

If you see someone with these stroke warning signs, call 9-1-1 and GET HELP FAST!

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



**Sad Fact:** On average, someone in the United States has a stroke every 40 seconds.



## High Blood Pressure Can Hurt Your Heart

Blood pressure is the force of the blood against the walls of the arteries every time your heart beats. Blood pressure increases when the heart beats and drops when the heart relaxes between beats. Blood pressure is affected by physical activity, rest, air temperature, emotions and what you eat, among other factors.

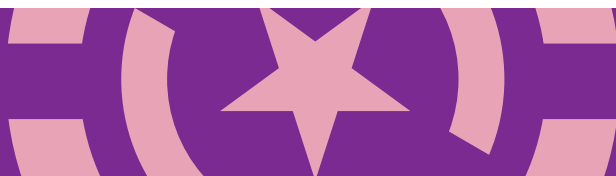
Having a normal blood pressure shows that blood can travel through the body easily. People whose blood pressure is above a normal, healthy range have high blood pressure, which is also called **hypertension**. Hypertension increases the risk for heart disease because having it means the heart and blood vessels have to work harder than normal. Eating a healthy diet and doing physical activity for at least 60 minutes a day can help reduce the risk for getting hypertension.

You can't tell if you have high blood pressure. It doesn't make you feel different, bad or sick when you have it. That's why it is very important for a doctor or nurse to check your blood pressure at least once a year.

You've probably had your blood pressure checked at the doctor's office. Doctors and nurses measure blood pressure with a **sphygmomanometer** (the familiar cuff and gauge). It measures your **systolic pressure**, which is the pressure on the artery wall when the heart beats, and the **diastolic pressure**, which is the pressure between heartbeats. Your blood pressure is written like this: 110/75 (read 110 over 75). The first number is the systolic pressure. This number is always larger because it is the measure of the pressure when the heart pumps and causes more pressure. 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 your heart work harder than it should.

Some people need to take medicine to keep their blood pressure normal. Others can keep their blood pressure normal by eating a healthy diet and by getting plenty of physical activity every day.



### Too Much Cholesterol Can Be Bad For Your Heart

Cholesterol is a soft, fatty substance found in the bloodstream and in your body's cells. Your body needs some cholesterol, and it creates all the cholesterol you need. But cholesterol also comes from some foods (like meat and dairy products). You do not need this extra cholesterol, so it is smart to minimize how much of it you eat. That's because too much cholesterol in the blood raises the risk for heart disease. **Hypercholesterolemia** is the medical term for high levels of cholesterol.

If your blood has too much cholesterol, it can collect in the arteries, causing them to clog up. If your arteries clog up, then blood can't move freely through your body. If this continues over many years, it can cause a heart attack or stroke.

Your doctor or nurse can find out what your cholesterol level is by testing a little bit of your blood. To keep your cholesterol level low, get plenty of physical activity and eat healthy foods that are low in cholesterol and saturated fat (because saturated fat causes your body to make more cholesterol). Examples are fish, chicken without the skin, fat-free milk and other dairy products like low-fat cheese and low-fat yogurt, and fruits and vegetables.

**EGG-SELENT FACT: ONE EGG CONTAINS 213 MILLIGRAMS OF CHOLESTEROL, ALL OF WHICH IS IN THE YOLK. BUT EGGS ALSO CONTAIN A HIGH AMOUNT OF PROTEIN SO IT'S OKAY TO EAT AN EGG ONCE OR TWICE A WEEK.**



### ACTIVITY

#### Activity: Research and Report on the History and Advancements in Medical Treatments for Heart Disease

Materials: Computers with Internet access

Objective: For students to explore how far medical advances have improved treatments for heart disease. By expanding their knowledge of how the heart works and learning about ways to treat heart disease, students will be inspired to take good care of their hearts.

1. Ask your students if they know of anything, other than medication, that can be done for heart disease.
2. Challenge them to research advancements in the treatment of heart disease since 1900 and report back to the class on their findings.

Discussion: Talk with your class about treatments like surgical advancements and other medical techniques. Also discuss the benefits of prevention — living healthy and maintaining heart health versus having to undergo the medical treatments. What are the pros and cons?



# HOW TO KEEP YOUR HEART HEALTHIER: ACTIVITY, NUTRITION, NO SMOKING AND MORE

## What You Do Now Affects Your Heart Health In The Future

You're a teenager so you don't need to think about keeping your heart and body healthy yet. That's for parents and grandparents and other older people...right? Wrong!

Think of it like this. If you had a pet, you would want to feed it the healthiest food and make sure it got all the exercise it needed right from the beginning, right? Well, don't you and your body deserve the same care? You don't want to wait until you're an adult to start giving your heart what it needs to stay healthy. By starting now, you'll be setting the healthy habits you need to have the best chance at a long, healthy life.

## "Active" Activities: What Is, What Isn't an "Active" Activity

**Note to Teachers:** Encouraging some children to be physically active can be a challenge, especially if they don't now enjoy being active or don't consider themselves to be "good" at athletics. It's important to be sensitive about helping students find activities they enjoy and not think of exercise as just playing popular sports or as a punishment, boring or something they don't do well — in short, something that is not for them. Use the information below to:

- Teach students about the benefits of physical activity.
- Teach students about the broad range of activities that can be considered "active."
- Positively motivate every student to find activities that are a good fit for them so they'll be more active.

Being 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 healthy and strong while improving blood pressure and blood cholesterol levels. It also helps you build and keep healthy muscles, bones and joints. It's also a fun way to stay at a healthy weight and can lead to a better night's sleep.

Regular physical activity can release chemicals called endorphins in the brain. These can help you feel happier, be more alert, deal better with stress and concentrate better.

Physical activity can help reduce your risk of getting some serious diseases, including some types of cancer and type 2 diabetes.

It's recommended that you get at least 60 minutes of moderate to vigorous activity every day. How do you know if you're exercising hard enough? When you're breathing hard and starting to sweat, then you're getting a good workout that will help your heart and your body.



**Serious Fact:** The risk of heart disease is twice as high in inactive people as in people who get regular exercise.

# BEING ACTIVE ACTIVITIES

## There Are “Active” Activities For Everyone

You’re more likely to participate if you choose physical activities that are fun for you. You don’t need to be on a sports team or have special equipment to be physically active. Shooting baskets in the driveway, going ice skating or putting on some music and dancing around your room works. So does taking a hike or bike ride with your family, playing “active” video games, or even walking briskly through the mall. These are all great ways to be physically active.

Another way to make sure you get enough physical activity is by making smart choices. When you have the choice to take the elevator or the stairs, take the stairs. If you can walk or ride your bike instead of going in the car, turn down the car ride.

What are you waiting for? Think of all the fun active activities you can do — and get moving!

**SHOCKING FACT: ONE-FOURTH OF THE CHILDREN IN THE UNITED STATES SPEND FOUR HOURS OR MORE WATCHING TELEVISION EVERY DAY.**

## ACTIVITIES

### Activity: Paper Bag Games and Activities Team Challenge

Materials: A paper bag, Household Items Labels sheet, Our Paper Bag Game sheet, paper and pencils/pens for each student team

Objectives: To broaden students’ knowledge of enjoyable physical activities, to help students who aren’t physically active find activities they would enjoy and to create new, fun activities.

1. Prior to class: Cut out the labels from the Household Items Labels sheet. If you have a large class, you might need to cut out duplicate labels. Fold the labels and place them into the paper bag.
2. Divide your class into teams, with 3–5 students per team.
3. Have each team pick five household labels out of the paper bag.
4. Instruct the teams to come up with an “active” activity or activities using those five items. Encourage students to think about both indoor and outdoor activities.
5. Have teams write up their new activity using the Our Paper Bag Game sheet, and take turns presenting the activities to the class.
6. The new games can be reproduced and shared with all students so they can try out the new activities at home.

Discussion: Challenge students to adapt their activities to be done/played in shorter periods, longer periods, indoors and outdoors.

### At Home Activity Extension: Family Activity Book

Encourage students and parents to work together to create a “family activity book” of activities the whole family can do together.

### Activity PE Class: Warming Up to Activity

Assign pairs of students to create warmup activities that get the heart pumping. Have those student pairs lead the warmups they created in PE class.

Objective: To help students add physical activities to their lives and make each student eager to participate in physical activities.

# NUTRITION

## Calories In, Calories Out. Eating for a Healthy Heart.

Note to Teachers: Talking with students about weight issues must be handled with extreme sensitivity. If you decide to talk to your students about obesity, focus on the fact that weight is an important factor in one's health. Keep the discussion general, never about any individual. Keep the focus away from appearance to avoid hurting the self-esteem of any students. Avoid making suggestions about specific weight. Being healthy is about working toward a healthier lifestyle and focusing on positive habits (being physically active, making healthier food choices), not about achieving a specific weight.

In the United States, almost one in three youths under age 19 is considered overweight. Nearly two out of three adults are overweight. This is a big problem, because being overweight can be dangerous for health — especially over time. It can lead to health problems like diabetes, heart disease and high blood pressure.

The good news is that by making some small changes, you can live a healthier life. Here are some things everyone should do to keep their body healthy and strong:

- Get at least 9 hours of sleep at night (young people need more than most adults).
- Drink plenty of water every day.
- Drink very little sugary sodas and juice drinks.
- Get at least 2 servings of low-fat or fat-free dairy products (milk, cheese, yogurt) every day.
- Eat at least 5 servings of fruits and vegetables a day.
- Be physically active for at least 60 minutes every day, even if it is for 10 or 15 minutes at a time.
- Cut TV, computer and sitting-down video game time to less than 2 hours every day (not counting school work).

**INTERESTING FACT: IT TAKES 3,500 CALORIES TO MAKE A POUND OF FAT.**

## Be Balanced: Calories In, Calories Out

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. When you read on a food label or hear someone say that a food has 100 calories, they're talking about how many units of energy are in that food.

Despite what you might have heard, calories aren't bad: we all need calories for energy. Everything the body does uses a certain number of calories that come from food. Your body needs energy just to operate, to do things like breathe and make your heart beat. And of course, your body needs calories (energy) to do activities like running, dancing and skateboarding.

## Energy In, Energy Out

When people eat more calories (food) than their body needs for energy, the extra calories get stored in the body as fat. That's how people gain weight. To keep your body in balance and at a healthy weight, you need to match the amount of **energy you take in** (calories from the food you eat, the beverages you drink) with the amount of **energy you burn** (which is affected by how physically active you are). So the more active you are, the more energy or calories or food you might need. Eating the same number of calories as you burn up is called energy balance.



## Not All Foods Are Created Equal

In addition to making sure you're eating the right amount of calories to fuel your body, you need to make sure to get the right type of foods and the right amounts of food for your needs. Each type of food helps your body in a different way. That's why it's important to mix it up every day and choose foods of each type described below.

**Grains:** Examples are bread, cereal, pasta, rice and crackers. Choose whole-grain or whole-wheat products. They have more fiber than white flour products (like white bread).

**Vegetables:** They are an excellent source of the vitamins and minerals your body needs.







**Fruits:** 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.

**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 (skim) or low-fat (1%) dairy products to avoid extra fat.

**Meats:** Lean meats (such as fish, or chicken and turkey without the skin) are great sources of protein, which helps build muscle.

**Fats, oils and sweets:** Limit fats, oils and sweets as much as possible. They are often high in calories but don't provide the vitamins, minerals or fiber that you need.

**FUN FACT: BANANAS ARE LOADED WITH POTASSIUM, WHICH HELPS KEEP YOUR BLOOD PRESSURE AT A HEALTHY LEVEL.**

					
<b>Grains</b>	<b>Vegetables</b>	<b>Fruits</b>	<b>Dairy</b>	<b>Meat, Poultry &amp; Fish</b>	<b>Oils</b>
Eat 7 oz. every day, mostly from whole-grain, high-fiber foods*	Eat 2–2½ cups every day*	Eat 2 cups every day*	Get 3 cups (fat-free or low-fat) every day*	Eat 3–6 oz. every day. Eat fish 2 times per week*	Get 3 teaspoons per week*
Whole-grain breads and cereals, pasta	Carrots, spinach, green beans, broccoli, salads	Bananas, apples, pears, peaches, blueberries, strawberries	Fat-free or low-fat milk, cheese, yogurt	Chicken, turkey, fish, lean beef	Corn oil, canola oil, olive oil, sunflower oil

\*Based on an 1,800-calorie diet.

## Easy To Understand Serving Sizes

Ounces and cup sizes can be hard to imagine, so here's a handy guide to help you understand serving sizes.

2½ ounces meat = Thickness and size of a deck of cards

Medium piece of fruit = Size of a tennis ball

1 ounce of cheese = 4 stacked dice

½ cup rice, pasta or broccoli = Size of a fist

1 teaspoon of peanut butter = The tip of your thumb

1 ounce of nuts = One handful

**STARTLING FACT: FOOD PORTIONS HAVE GROWN. TWENTY YEARS AGO A REGULAR BAGEL WAS ABOUT THREE INCHES IN DIAMETER AND HAD ABOUT 140 CALORIES. TODAY, BAGELS ARE MORE LIKELY TO BE SIX INCHES ACROSS AND HAVE ABOUT 350 CALORIES.**



# READING UP ON NUTRITION: UNDERSTANDING NUTRITION LABELS

Learning to read and understand the nutrition labels on the back of food packages is important to make informed, healthy decisions about what you eat. For the following activity, bring in some food packages with labels. Students can compare them as you teach about some of the key things to look for on a label. (It is best if the packages are empty.)

Reading the label is the only way to know exactly what you're eating with packaged food. Here are some things to look for on food labels to help you make healthy choices:

## Serving Size and Calories Per Serving

Check the serving size, especially how many servings 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.

Read labels carefully because you'll probably be surprised. For example, one serving of potato chips might be just 15 chips. Most people would eat a lot more chips than that at one time.

When looking at the calorie count in a serving, use this information to decide if a food has relatively few (or a lot of) calories in a serving:

- 40 calories per serving is considered low\*
- 100 calories per serving is considered moderate\*
- 400 calories or more per serving is considered high\*

## Avoid Foods That Are High In These...

- *Saturated and Trans Fat*
  - Try to stay away from foods that have a lot of saturated and trans fat. These are both "bad" fats that cause your body to make more artery-clogging cholesterol.
- *Cholesterol and Sodium (salt)*
  - The less cholesterol and sodium you eat, the better. Cholesterol can be bad for your arteries and heart, and too much sodium can be bad for blood pressure.
- *Sugar*
  - Try to stay away from foods with a lot of sugar. More sugar means more calories, but it does not offer added benefits for your body like vitamins, calcium or fiber.

## Include Foods That Are High In...

- *Fiber, Vitamins and Minerals*
  - Be sure to get plenty of fiber, Vitamins A and C, calcium and iron.

\*based on a 2,000-calorie-a-day diet

## Nutrition Facts

Serving Size 1/2 cup (114g)

Servings Per Container 4

### Amount Per Serving

**Calories 90**      Calories from Fat 30

	% Daily Value*
Total Fat 3g	5%
Saturated Fat 0.5g	3%
Polyunsaturated Fat 2g	
Monounsaturated Fat 0.5g	
Cholesterol 0mg	0%
Sodium 200mg	8%
Total Carbohydrate 13g	4%
Dietary Fiber 3g	12%
Sugars 3g	
Protein 3g	
Vitamin A 80%	• Vitamin C 60%
Calcium 4%	• Iron 4%

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

	Calories	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Fiber		25g	30g

Calories per gram:

Fat 9 • Carbohydrate 4 • Protein 4

## ACTIVITIES

### Home and School Activity: Keeping a Food Journal

Materials: Food Journal sheet or small notebooks for each student

Objective: To raise students' awareness of what they eat and drink.

1. Discuss making healthy food choices with students.
2. Challenge students to keep a food journal for a week, writing down everything they eat or drink.
3. Hand out the Food Journal sheets or small notebooks for students to use as their journal.
4. During the week, remind students about keeping their journals.

Discussion: When the week is over, have students discuss what it was like to be so aware of what they ate and drank. Ask students to self-assess how healthy their eating habits were and ask if any students feel they will make changes in their eating habits.

### Activity: Restaurant Wars Healthy Menu Competition

Materials: Paper, pen, markers (if desired)

Objective: To encourage students to think about how they can eat healthy and still eat the foods they enjoy.

1. Discuss making healthier food choices with your class. Suggest to them that they can still eat the foods they like by making small changes to make those foods healthier.
2. Divide your class into teams of 3-5 students.
3. Each team is responsible for creating an imaginary restaurant where they would like to eat.
4. Each team will create a menu of foods they like to eat, but they will make the foods healthier for the restaurant. Restaurants should have a name and, if you like, for added fun — a theme.
5. Suggest to restaurant teams that they include three appetizers, three main courses, three side dishes (like vegetables), three desserts and three beverages on their menus.
6. Once menus are complete, teams can present their “restaurants” to the rest of the class.
7. For an additional exercise, the class can choose a few of the menu items to make in class.

Discussion: Ask your students how difficult it was to “health-ify” their favorite foods. Check to see if any students have tried to do this at home and, if so, what the results were. Suggest that students try this at home with their favorite foods.

### Activity: At Home Extension: Class Healthy Cookbook

Materials: Recipe Template

Objective: To raise parents' awareness, include them and make them aware of what their children have been learning.

1. Ask parents to work together with their child to take a favorite family recipe, make it healthier, then copy it into the Recipe Template and submit it for a class cookbook.
2. Copy recipes, “bind” and share the Healthy Cookbook with class families.

### **At-Home/In-School Activity: Home and School Heart-Healthy Food Report Card**

Materials: Healthy Report Card

Objective: For students to assess the healthiness of foods at home and at school and make recommendations for healthier meals/snacks.

1. Briefly review healthy vs. unhealthy foods with students.
2. Pass out the Healthy Report Cards to students. Tell them that they are going to be grading meals for the next week, both at home and at school.
3. Discuss the grading scale that students should use.
4. Remind students throughout the week to be grading meals.

Discussion: After the week of grading, have students discuss their findings on the healthiness of foods served at home and school. Were they surprised at what they found when being so conscious about healthy vs. unhealthy foods? How so? Ask students to make recommendations for healthier replacements for any meals that received grades lower than a B.

### **Activity: Research Which Countries in the World Are the Healthiest and Explore Their Eating Habits**

Materials: Computers with Internet access

Objective: To help realize the connection between healthy eating and healthy life for students. To make them aware of how some of the eating habits in our country are affecting the population of this country and themselves as individuals.

1. Talk with students about how different countries and cultures have different eating habits. Ask students to identify some of these that they already know about.
2. Assign or have students choose a country or culture to research to learn about their eating habits and the effect that eating habit has on the population.
3. Have students present their reports.
4. This activity can be done individually or in small teams.

Discussion: Following the research, discuss with students which country has eating habits that we could learn from and adopt and why. Discuss their findings and what surprised them and why.



# STAY AWAY FROM TOBACCO

Note to Teachers: Smoking is the No. 1 cause of preventable death in the United States. Middle school is often the time when kids first try smoking or are pressured by peers to try it. Making them aware of the dangers and giving them the ammunition to fight peer pressure can help keep them from smoking.

In our country, smoking kills more Americans than car accidents, murder, AIDS, drugs and fires combined. Using tobacco, either by smoking cigarettes or using smokeless tobacco, is one of the worst things you can do to your body. Smoking hurts nearly every organ in the body, including the heart and lungs, and causes heart disease and cancer. Cigarette smoking damages blood vessels in the body, causing the blood flow to be interrupted so that cells in the body don't get the nutrients they need to function properly. Damaged blood vessels can also cause blocked blood vessels, causing heart attack or stroke.

Smoking also causes gross side effects, such as bad breath, smelly clothes, coughing, yellowing teeth and difficulty breathing, especially when being active.

Why is smoking so dangerous? Tobacco contains a chemical called nicotine that people get addicted to. That means it's very hard or impossible for them to stop smoking even when they want to. Many people who started smoking when they were in their teens struggle to quit because they are so addicted to it. In addition to the nicotine, tobacco contains poisonous chemicals — chemicals you would never dream of putting in your body. These poisons destroy your body over time, especially your heart and lungs.

Think about putting these in your body. They're all in cigarettes, so when you smoke you are ingesting them:

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

Secondhand smoke is what people breathe who are near someone who is smoking. Secondhand smoke is harmful to your body. If you are around someone who is smoking, ask them not to smoke near you or try to move away from the smoke.

As students get older, they might think that smoking is cool and start to smoke. Some kids even pressure other kids to try smoking. You have the power to say "no." Now that you know the facts about smoking, use your power and say "no" to smoking.

Note to Teachers: Ask the staff at your school to set a good example for students. If a staff members use tobacco products, encourage them to quit. The American Heart Association offers free tips to quit smoking. To see them, visit [heart.org](http://heart.org) and type "smoking cessation," or "quit smoking" in the search box.

**SCARY FACT: PEOPLE WHO SMOKE CIGARETTES HAVE TWICE THE RISK OF STROKE.**





## ACTIVITIES

### Activity: Learn More: Online Research on the Effects of Smoking

Materials: Computer and Internet Connections

Objective: For students to learn in more detail about the dangers of smoking, including viewing images that will make those dangers more urgent and real to them.

1. Challenge students to find out more about the dangers of smoking by doing online research about smoking. Encourage them to bring in images from their research showing what smoking does to organs and other parts of the body.
3. Images along with reports can be posted in the classroom or hallway as constant reminders of the dangers of smoking.

Discussion: After students have reported their findings, ask students:

- “If we all know the facts about smoking, why do you think people start smoking?”
- “How do you think smokers rationalize smoking?”
- “What would you want to say to someone who is just starting to smoke?”
- “Why do you think some kids try to get their friends to join them in smoking?”

**SAD FACT: EVERY 6.5 SECONDS,  
SOMEONE IN THE WORLD DIES FROM  
A SMOKING-RELATED DISEASE.**

### Activity: Don't Start Smoking: Role play strategies for when friends are pressuring you to smoke

Materials: Say No To Smoking Ammunition & Tips sheet

Objective: To arm students with the ammunition and confidence they need to say “no” to smoking when under peer pressure to smoke.

1. Discussion: Get a show of hands from your students: How many have been asked by friends to do something they didn't want to do or to do something that they knew was bad for them or that they shouldn't do? Ask them what it felt like. What went through their minds? What did they do?
2. Tell your students that it is not only possible, but likely, that at some time in the next few years a friend or classmate will offer them a cigarette or other tobacco product and pressure them to try it. There are many ways to handle this.
3. Hand out the Say No To Smoking Ammunition & Tips sheet and review it with students.
4. Talk to students about “body language” and “facial expressions.” How they stand and the expression on their faces will communicate as much, if not more, than the words they say. They will want to communicate “confidence.”
5. Improvisations: Role Playing: Ask for three volunteers to kick off the role playing.
6. Have the students role play different roles:
  - A. Smoker-Friends who are smoking and offering/pressuring another friend to smoke.
  - B. Non-smoker-Friend who doesn't want to try smoking.
7. Help students act out their role. Remind “smokers” to try to pressure the “nonsmoker.” Remind the nonsmoker to think about their body language and facial expression. Have them try different strategies on the “Say No To Smoking Ammunition Sheet.”
8. Make sure that all students get to play both roles.
9. Recommend to students that they keep the Say No To Smoking Ammunition & Tips sheet and practice role playing at home with their families to get comfortable with saying “no.”

Discussion: Ask students for additional suggestions on what they can say and do, and role play those suggestions.

**Activity: Making an Anti-Smoking Commercial:**

Materials: Paper, pen, video camera if desired

Objective: For students to think about — and be able to verbalize — the reasons why they shouldn't smoke now or in the future.

1. Review information on the dangers of smoking with your class.
2. Divide your class into teams of 3-5 students.
3. Have students work together to make an anti-smoking commercial that will convince other kids to never smoke.
4. Have students write the "script" for their commercials.
5. Suggest that students rehearse their commercials.
6. When students are ready, have teams present their commercials to the class.
7. If desired, commercials can be videotaped.

Discussion: Ask students which facts about smoking that they learned are the most compelling in keeping them from smoking. Ask why they feel that way. Ask students why they think people start smoking despite the facts about cigarettes.

**At-Home Activity: Once You Start, It's Hard to Stop**

(Interview with a relative or adult friend who used to be a smoker and quit smoking)

Materials: Note pad, pen or pencil and/or tape or video recorder if available to students

Objectives: For students to learn firsthand about the health risks and physical results of smoking along with how addictive smoking is; how difficult it is to quit.

1. Discuss with students what they would want to ask someone who was once a smoker but has quit.
2. List all of the questions on the board.
3. Share the assignment with students: Conduct a one-on-one interview with a family member or adult friend who quit smoking.
4. Encourage students to use questions from the board as well as other questions they want to ask.
5. Have students write up and share the interviews with the class either by video or report.

Discussion: Ask students what were things they consistently heard across the interviews? What did they learn about smoking that they didn't know before? Has that changed their feelings about smoking? How so?

**Activity: Take the No Smoking Pledge**

Materials: No Smoking Pledge or a No Smoking Pledge created by your class

Objective: To encourage students to not just think about how they feel about not smoking, but to think about the future AND take a personal stand against smoking.

1. Review the nonsmoking pledge with your class OR work with your class to create a custom class pledge.
2. Poll the class to see if everyone agrees with the language and requirements of the pledge.
4. Hold a pledge-signing ceremony where each student brings up their pledge and signs it.

Discussion: Talk with your students about how easy or hard it is to stick to the pledge now and how that might change in years to come. Ask students to come up with ideas for how they can honor their pledge.

# CATCHING THE RIGHT AMOUNT OF Zzzzz's

Note to teachers: Sleep is important and often overlooked when thinking about staying healthy and fit. With everything that kids have to do and all the distractions in their lives, many don't get enough sleep. Help your students understand why getting enough sleep is important.

With TV shows, computer games and cell phones, there are many things more fun than going to bed. And that's too bad because many kids don't get enough sleep. That can lead to problems like not doing well in school, not being alert, being cranky and argumentative, and lowered resistance to colds and the flu. Researchers now think that insufficient sleep can even slow kids' growth.

If you're like most people your age, you've had a busy day. There's school, activities, hanging with friends, homework, household chores. It's no wonder you get tired. You're not alone — everyone and every living thing needs sleep. Why? With all this activity and running around and thinking, your body and your brain need a rest.

So how much sleep do you need? It's recommended that kids your age get about 9 hours per night. So stay away from drinks with caffeine like some sodas, coffee and tea; finish your homework early; turn off the TV and the computer; and go to bed.

## ACTIVITIES

### Activity: Creating a Sleep Diary

Materials: Sleep Diary Template

Objective: To make students aware of how much or how little sleep they get

1. Ask students how they feel when they get up in the morning: Are they ready and eager to get out of bed, or do they feel like going right back to sleep when the alarm goes off? How do they feel during the school day? Do they sometimes feel like they're not going to make it through the day?
2. Talk to students about what time they go to bed, when they fall asleep and what time they get up.
3. Hand out the Sleep Diary Template and tell students that they're going to keep track of their sleep habits for a week.

Discussion: After keeping the Sleep Diary, ask students if they think they could use more sleep and, if so, how they can get it. Suggest that they might want to use some of those ideas for the following activity: Create a daily schedule that allows for 9 hours of sleep.

### Activity: Create a daily schedule that allows for 9 hours of sleep.

Materials: Paper and pencils

Objective: For students to think about priorities that will keep them healthy and create a daily schedule that allows for physical activity and at least 9 hours of sleep.

1. Discuss with your students the importance of living a healthy life. Ask students to suggest the things that they need to include in their lives to be healthy. Be sure that 9 hours of sleep and physical activity are included in the discussion.
2. Have students list all the things they do during a normal school day, giving them enough time to recall everything including sleep, school, meals, activities, lessons, sports practices and games, computer and TV time, socializing, etc.
3. Once students have a complete list, have them create a daily schedule that leaves time for daily physical activity and 9 hours of sleep.

Discussion: Ask your students how difficult it was to find the time for the necessary amount of sleep and physical activity. What did they give up to make sure those things were in their daily schedule? Ask students how likely they will be to follow the schedule. Follow up with them in a week to find out if they're following the new schedule, and if not, why.

**INTERESTING FACT: WHEN YOU SLEEP, YOUR BRAIN RECHARGES, YOUR CELLS REPAIR THEMSELVES AND YOUR BODY RELEASES IMPORTANT HORMONES.**



# DIABETES: WHAT IT IS AND HOW TO REDUCE THE CHANCES OF DEVELOPING IT

Note to Teachers: 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 low-income or minority groups that number increases to one in two. Sixty-five 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.

Diabetes is a disease that stops the body from being able to use **glucose**. Glucose is the sugar that gives the body the energy it needs to run.

Here is the process the body uses to use energy.

1. A healthy person eats a meal or a snack.
2. Glucose from the food goes into their blood.
3. The **pancreas** (located near your stomach) makes a hormone called **insulin**.
4. **Insulin** makes the glucose go into the body's cells.
5. Once in the cells, the glucose gives your body energy.

**SAD FACT: IT'S ESTIMATED THAT MORE THAN 220 MILLION PEOPLE IN THE WORLD LIVE WITH DIABETES. THAT'S ABOUT 3 PERCENT OF ALL ADULTS IN THE WORLD.**

When someone has diabetes, the pancreas doesn't make insulin or doesn't make enough insulin, or the insulin it makes doesn't work as well as it should. If there's no insulin, or it doesn't work, then the glucose can't get into the cells and it builds up in the blood. Not only does your body not get the energy it needs, but having too much glucose in the blood (called high blood sugar) makes people sick if they don't get treated for it.

There are two main types of diabetes, type 1 and type 2. Type 1 diabetes means the pancreas does not make enough insulin or any insulin. This is a problem people can be born with. People with type 1 diabetes need to have insulin injections, get plenty of exercise and eat a healthy diet.

Type 2 diabetes is the most common type. It can develop in people over time when they don't take good care of themselves by getting enough physical activity and eating a healthy diet. Type 2 diabetes is usually treated with medication, weight loss, eating healthier and getting plenty of physical activity.

Once a person has type 2 diabetes, they're at risk for problems with almost every part of their body unless they changes their habits:

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

## Diabetes Warning Signs

If you notice any diabetes warnings signs, tell a parent, teacher or doctor right away!

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

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.



## ACTIVITY

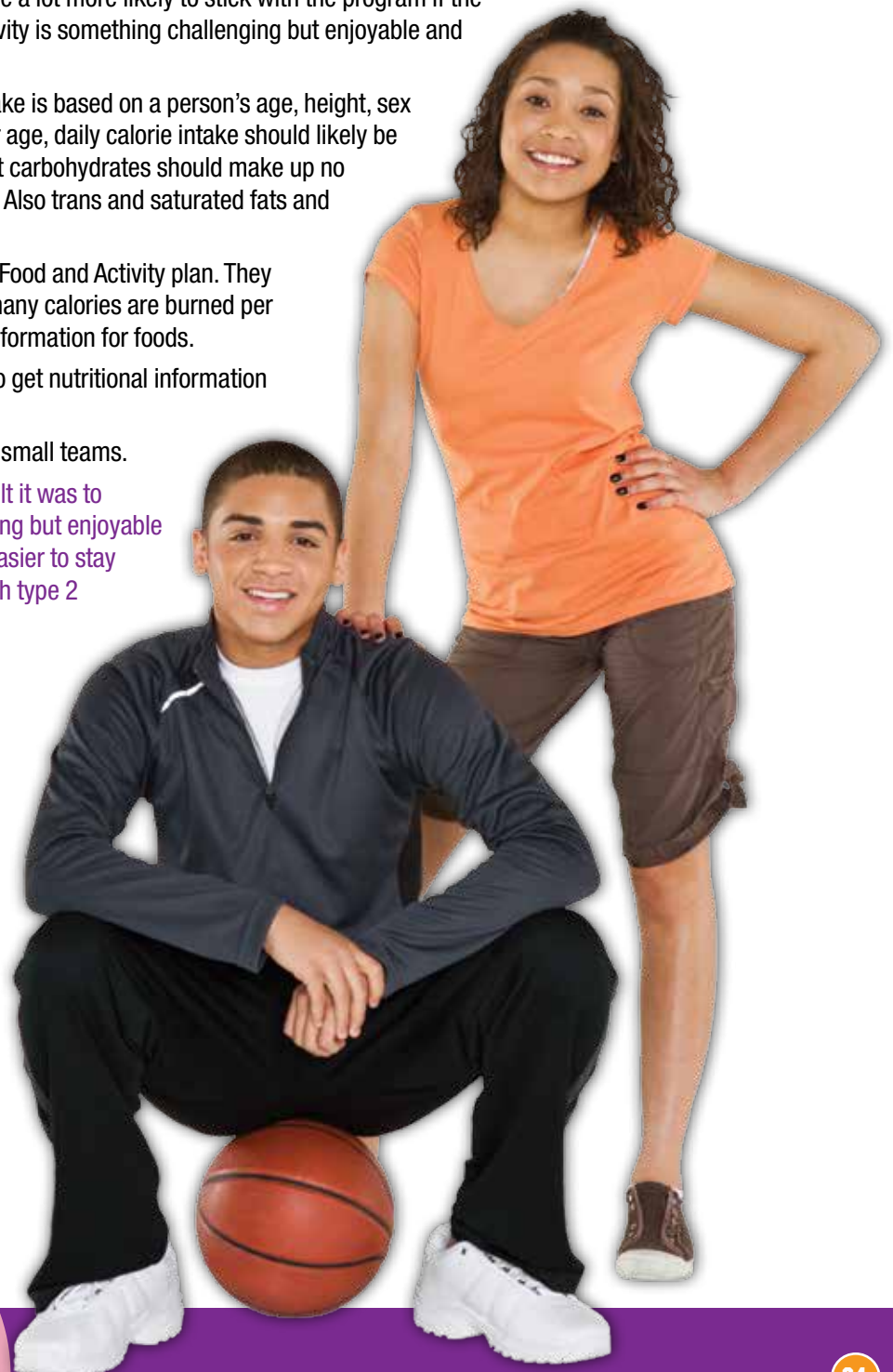
### Activity: You Are the Doctors — Creating a food and activity plan for a diabetes patient

Materials: Type 2 Diabetes Food and Activity Plan (Middle School version), Internet connection

Objective: To make students aware of: how conscientious someone with type 2 diabetes should be with their diet and exercise to manage their disease and lose excess weight; to give students practice in reading and understanding nutrition labels; and to help students understand the energy in/energy out balance.

1. Tell your students that they are going to be the doctors. Their job is to help a diabetes type 2 patient manage his/her diet and physical activity.
2. To do this, they will need to make a three-day plan of meals and physical activity for their “patient.”
3. Remind students that their “patient” will be a lot more likely to stick with the program if the meals are appealing and the physical activity is something challenging but enjoyable and not repetitive.
4. Remind students that the daily calorie intake is based on a person’s age, height, sex and level of physical activity. For kids their age, daily calorie intake should likely be between 1500-1800 calories/day and that carbohydrates should make up no more than 40-50 percent of their calories. Also trans and saturated fats and added sugars should be avoided.
5. Have students fill out the Type 2 Diabetes Food and Activity plan. They should use the Internet to research how many calories are burned per hour for different activities and nutrition information for foods.
6. Students can also visit the grocery store to get nutritional information by reading labels.
7. This activity can be done individually or in small teams.

Discussion: Ask your students how easy or difficult it was to create healthy but appealing meals and challenging but enjoyable physical activities. Discuss whether it would be easier to stay healthy and maintain a healthy weight or deal with type 2 diabetes and try to get healthier.



# EDUCATIONAL WEB RESOURCES FOR TEACHERS

## [www.heart.org/jump](http://www.heart.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.heart.org/hoops](http://www.heart.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.heart.org](http://www.heart.org)

The **American Heart Association** website offers valuable information on a wide range of topics including current research developments, detailed explanations for many diagnoses and heart-healthy tips.

## [www.heart.org/NFLPlay60Challenge](http://www.heart.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](http://www.aahperd.org)

**American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD)** 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](http://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](http://www.aahperd.org/naspe/stars)

**STARS** is a program developed by the National Association for Sport and Physical Education (NASPE). This awards program features five levels of achievement to recognize outstanding physical education programs in K–12 schools across America. You can gain national recognition for your school and your PE teachers by documenting the excellence of your PE program.

## [www.pecentral.org](http://www.pecentral.org)

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

## [www.healthychoices.org](http://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](http://www.nutritionexplorations.org)

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.kidsnutrition.org](http://www.kidsnutrition.org)

The **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](http://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.health.discovery.com](http://www.health.discovery.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](http://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](http://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](http://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](http://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](http://www.bam.gov)

**BAM! Body and Mind** is a children's website of the Centers for Disease Control and Prevention. The 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.

### [www.startwalkingnow.org](http://www.startwalkingnow.org)

This website provides tools to find a walking path as well as a log to track your times or distances traveled.

## ADVOCACY WEB RESOURCES

### [www.yourethecure.org](http://www.yourethecure.org)

**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](http://www.nchealthyschools.org/docs/schoolhealthadvisorycouncil)

The **North Carolina Healthy Schools Program** has put together resources to create effective school health advisory councils.

### [www.walkinginfo.org/problems/](http://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](http://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.



# PHYSICALLY ACTIVE LIFESTYLES

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 example:

- 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, sleep apnea and type 2 diabetes mellitus.
- 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 fundraising event created by the American Heart Association and the American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD). 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. You'll get:

- 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



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