IT TAKES HEART TO BE A HERO

LEARNING ABOUT HEART HEALTH

Elementary 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.

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 educational outreach are vital to ensuring their good health in the future.

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 being 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.

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/jump in the Additional Resources links.
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 a number of courses and awareness programs to train middle school and high school students in CPR.

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 program. 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 is 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.
The Heart and How It Works

- From the left atrium into the left ventricle
- From the left ventricle into the pulmonary artery into the lungs
- From the lungs back into the heart through the left atrium
- From the left atrium into the right ventricle into the pulmonary artery
- From the pulmonary artery into the lungs
- From the body into the right atrium
- From the right ventricle into the aorta all through the body

Fun Fact: The heart of a shrimp is in its head.
The Heart and How It Works

Your Amazing Heart

Your heart is amazing and vitally important. It's only the size of your fist (and will keep growing like your fist will) yet it keeps blood pumping through your body. You can’t live without your heart beating.

Your heart is located in the middle of your chest. Your heart is a very special kind of muscle called a cardiac muscle. (Cardiac means “about the heart.”) Your heart is also an involuntary muscle. That means it works without you thinking about it.

Your heart is a pump that pumps blood throughout your body. It gets rid of waste (what your body doesn’t need) and delivers oxygen throughout your body.

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

The heart has four separate areas, like four 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 your body and send the blood to your lungs. In the lungs, the blood releases waste from the organs and cells in your body and picks up oxygen. Then the blood leaves the lungs and goes back into the heart through the left side.

The heart's top two chambers together are called the atria (or atrium, if you’re just talking about one chamber). The right atrium receives oxygen-depleted blood from the body; the left atrium gets oxygen-refreshed blood from the lungs.

The heart's bottom chambers are called the ventricles. They push the blood out of the heart. As the ventricles push the blood out, the atria are refilling. This repeats over and over again.

All the heart's chambers have special one-way doors called valves. The valves only let the blood travel forward.

Your heart is a very hard-working organ. It never stops. A normal heart beats about 100,000 times a day. In a normal lifetime, a human heart will beat about 2.5 billion times.

When the Blood Leaves the Heart

The blood moves through your body in a complicated system of tiny tubes called blood vessels. This system is called the circulatory system.

One type of blood vessel is called an artery. Arteries carry blood away from the heart to deliver oxygen and nutrients to 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 a vein. Veins carry blood from the body back to the heart. Veins are bluish because the blood in them has carbon dioxide and other wastes rather than oxygen. Arteries connect to veins by way of tiny vessels called capillaries.
Grades K–2

Active Activity: Create a 3-D Heart
Materials: A large open area, tape, chalk, string and/or cones, 4 handmade “stop” signs
Objective: To clarify and bring to life the workings of the heart.

1. Create a super-size single dimensional “heart” diagram on the gym floor or other large open area based on the diagram in this guide. Label the parts of the heart and include arrows to illustrate how blood flows through the heart.
2. Assign four students to be the “heart valves.” These students will use the stop signs.
3. Assign the rest of the students to be the “blood.”
4. Place your student “valves” with their stop signs at the appropriate spots on your “heart.”
5. Instruct your student “valves” to hold up their stop signs to only let a few students through at a time, making sure that the “blood” flows only in the right direction.
6. The students who act as the blood will move through the heart diagram the same way that blood flows through the heart.

Discussion: Review and explore what happened during the activity to assess if your students clearly understand how the heart works.

Grades K–2

Activity: Heart Sounds
Materials: One empty paper towel roll for every two students
Objective: For students to hear the heart.

1. Have students take turns listening to each other’s heart using the paper towel rolls as a stethoscope.
2. Have students hypothesize about how the heart might sound different after physical activity.

Discussion: Discuss what students expected the heart to sound like. Then discuss what the heart actually sounded like. Did it sound like students expected?

Grades 3–5

Active Activity: Heart Part Jumble
Materials: Heart Part Labels sheet, string or tape
Objective: When space is an issue, this exercise will illustrate how blood flows through the various parts of the heart, making the sequence of steps clear to students.

1. Cut out the labels of the individual parts of the heart from the sheet.
2. After reviewing the parts of the heart and the journey that blood takes through the heart, use string or tape to affix Heart Part Labels to students (one per student).
3. Have the students who are wearing labels work with the students who don’t have labels. Their goal is to arrange the labeled students in the correct order to represent the flow of blood through the heart.
4. Additional Challenge: If you have enough students in your class, have two “teams” of Heart Part Label students challenge each other. The challenge is to be first in arranging themselves in the correct order.

Discussion: Review and explore what happened during the activity to assess if your students clearly understand how the heart works.

Grades 3–5

Activity: Parts of the Heart Word Search
Note: This activity can be done in school or as homework.
Optional: Unlabeled diagram of the heart.
Objective: For students to become more familiar with the terminology for specific parts of the heart and for more advanced students to 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. More advanced students can label the parts of the heart using the words in the worksheet.

Discussion: Using the diagram of the heart, work as a class to correctly label the parts of the heart on the diagram. (The correctly labeled diagram and the key to the Heart Word Search are on heart.org/jump.)
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!

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 if your heart is working well.

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). How do you know if you’re giving your heart a good workout? If you’re breathing hard and starting to sweat that means you’re giving your heart and body a good workout.

Activities

Grades K–5
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 5–10-year-olds is 60–140 beats per minute; for ages 10 to adult a typical resting heart rate is 60–100 beats per minute.)
Objective: For students to compare their resting heart rate to their active heart rate.
(Note to Kindergarten, First and Second Grade Teachers: Your students probably will need some help to find their pulses, count the beats and multiply by 4. Invite an older class to join your class, and pair up older students with younger ones. The older students can help the younger ones find their pulse, count and multiply the beats.)

1. Make sure students have been calm and inactive 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 is ready to count, say “Go.” Have students silently count their heart rate for the next 15 seconds as you keep time on the watch or clock.
4. Say “Stop counting” when 15 seconds is up.
5. Have students write down the number of times their heart beat in 15 seconds.
6. 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 x 4 = 80.
7. 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 2–6.

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.

Grades K–2
Activity: Heart Chart
Make a class chart illustrating everyone’s resting vs. active heart rates.

Grades 3–5
Activity: Heart Math
Use students’ resting vs. active heart rates for a graphing exercise. Use students’ resting vs. active heart rates to practice percentages.
Why Is a Healthy Heart so Important?

What Can Happen to an Unhealthy Heart?

Grades K–2
Questions for discussion
- Why is it important to keep your heart healthy?
- What can happen to your heart if you don’t keep it healthy? How do you know that?

Grades 3–5
Questions for discussion
- Why is it important to keep your heart healthy?
- What can happen to your heart if you don’t keep it healthy? How do you know that?
- Do you know of anyone whose heart may not be completely healthy? Tell us about them.

A Heart Attack Can Happen

The heart pumps blood full of oxygen and other nutrients to all parts of the body, including the heart itself. In a healthy person with a healthy heart, blood flows freely through the blood vessels (arteries and veins). It’s like the pipes that bring water to your home — when everything is working as it should, water comes through the pipes into your sinks and bathtubs and gets carried away through the drains.

Unhealthy habits, like not getting enough physical activity or eating a lot of unhealthy food, can cause blood vessels to get clogged or backed up just like the pipes and drains in your home. Having these unhealthy habits can cause a fatty substance, called **plaque**, to build up inside the blood vessels. This can partly or totally block the blood flow in the arteries supplying the heart muscle. If the heart muscle can’t get the oxygen and nutrients it needs, it starts to die. When this happens, it’s called a heart attack.

A Stroke Can Happen

A stroke is something that can happen when a blood vessel that carries oxygen to the brain gets blocked or bursts. When that happens, part of the brain can’t get the oxygen it needs, so it starts to die. That’s why getting the help of a doctor or hospital right away is so important.

People who have suffered a stroke may have long-term problems speaking, seeing or moving normally because of the damage to their brain. The people at the most risk for a stroke are over age 55, don’t eat a healthy diet, don’t get a lot of physical activity, and may be overweight or have certain medical problems (such as high blood pressure or heart disease).

**SAD FACT:**
In our country, heart diseases and stroke kill about 650 more people each day than all the types of cancer put together.

**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 blood vessels every time your heart beats. Remember the tubes that carry the blood all through the body? Blood pressure increases when the heart beats and drops when the heart relaxes between beats.

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 healthy foods and doing physical activity for at least 60 minutes a day can help reduce the risk of getting high blood pressure.

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 lots of physical activity every day.

Here's the scary part: 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's very important for a doctor or nurse to check your blood pressure at least once a year.

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 you can also get cholesterol from some foods (like meat and dairy products) that you eat. 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. Foods high in fats, particularly saturated fats, also can make your body produce more cholesterol. That's why it's smart to limit how much fatty foods you eat.

Again, think of the blood vessels in your body as if they are pipes in your house. If your blood has too much cholesterol, it can collect in the blood vessels, making those “pipes” clog up. If your blood vessels clog up, then blood can't move freely through your body. Over time, this clogging can get worse and 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 fat. Examples are fish, chicken without the skin, fat-free milk, low-fat cheese, low-fat yogurt, and fruits and vegetables.

ACTIVITIES

Grades K–2

Activity: A Valentine for Your Heart

Materials: Construction paper, glue, doilies, scissors for students, additional arts and crafts supplies

Objective: An opportunity for students to think about why their hearts are important and what they need to do to keep their hearts healthy.

1. Have a creative conversation with your class. Ask your students what they would say to their heart to show their appreciation. Encourage them by reviewing what your heart does and what can happen if you don’t keep your heart healthy. Write those words and phrases on the board.

2. Tell your students that they’re going to make valentines to show their heart how much they appreciate it, and to let it know how they will always take good care of it.

3. Encourage students to use some of the words or phrases you captured on the board (if appropriate for the reading/writing level of your class).

4. Valentines can be displayed in the classroom.

Discussion: Have students share in class their valentines, along with their feelings about their hearts. This should stimulate further discussion and make students more thoughtful about what they eat and how much physical activity they do.

INTERESTING FACT: Get a tennis ball and squeeze it tightly over and over; that’s how hard the beating heart works to pump blood.

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 that your body needs. So it’s OK to eat an egg once or twice a week.
Grades K–2
Activity: Fist Pump
Materials: Clock or watch with sweep second hand
Objective: To illustrate how hard the heart works.

1. Have students make a fist and hold it up. Remind them that this fist is about the size of their heart.
2. Now have them “pump” (slightly open then close their fists as tight as they can) a few times. Tell the student that this is how hard their heart pumps.
3. Have students “pump” their fists as quickly as possible for one minute.

Discussion: Ask students how their hand felt while they were pumping. How quickly did their hand feel tired? Did they want to stop? Discuss how this illustrates how hard the heart works and explain how, for as long as you live, it never stops pumping.

Grades 3–5
Activity: Writing a Letter to Your Heart: Creative Writing Exercise
Materials: Paper and pens for students
Objective: Students think about why their hearts are important and what they need to do to keep their hearts healthy.

Note: This is a good opportunity to practice formal letter-writing skills and can be done in class or as a homework assignment.

1. Have a creative conversation with your class: Ask students what they would say to their heart to show their appreciation. Encourage them by reviewing what your heart does and what can happen if you don’t keep your heart healthy. Write those words and phrases on the board.
2. If desired, review formal letter-writing guidelines.
3. Have students write letters of appreciation to their hearts.
4. If desired, class letters can be displayed, bound into a single book or even reproduced as a set so each student can have a book of the class letters.

Discussion: Have students volunteer to read their letters to the class to spark further thought and discussion.

Grades K–5
Activity: Call 9-1-1! Teaching How To Call 9-1-1 in an Emergency
Materials: Disconnected land line phone or phones
Objective: To teach students how to call 9-1-1 in case of an emergency and make them as familiar and comfortable as possible with the process.

1. Why? Explain that it’s not likely but possible that someday they might need to call 9-1-1 for help. Tell them it’s good to pretend to call when there isn’t an emergency so they will know exactly what to do.
2. When? Explain what an emergency situation is: a family member or friend is unconscious or seriously hurt, there’s a fire, there’s an intruder, etc. Explain what is not an emergency: a cut, bump or bruise, a lost or stolen item, a lost pet, etc.
3. Stress that they should never call 9-1-1 unless it’s an emergency, and that this is even against the law in many places.
4. Tell students that it’s important that they know their address (including their apartment number if they live in an apartment building) and phone number. Even though most 9-1-1 calls are traced, theirs might not be or they might be calling from a cellphone.
5. Tell students that, if possible, they should call 9-1-1 from a land line, not a cellphone. (This is because a land line can be traced more easily.)
6. Tell them that when they call 9-1-1, they will be asked their name, their location, what type of emergency it is, who needs help and if that person is awake or unconscious.
7. Tell students to stay on the phone with the 9-1-1 operator until help comes or until the 9-1-1 operator tells them they can hang up.
8. Have them speak clearly, loudly and slowly, even if they are scared about the situation.
9. Let students know that it’s OK if they can’t answer all the operator’s questions.
10. Let them know that it’s OK to feel scared during an emergency, but that it’s important to stay calm in order to get help as quickly as possible.
11. Have students role play calling 9-1-1 on the phone, with you as the operator.

Discussion: Encourage students to discuss any fears they have about calling 9-1-1. Ask students to offer tips on dealing with those fears.
How to Keep Your Heart Healthier
(Being Active, Eating Right and Staying Away from Tobacco)

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

You’re a kid 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 dog or a cat, you would want to feed it the healthiest food and make sure it got all the exercise it needed. You would want to take the best possible care of it right from the beginning, from when it was a puppy or a kitten — 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 making sure that your body has the best chance of staying healthy your whole life. You’ll be setting those healthy habits right now.

“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 all students find an activity they enjoy. Students should not think of exercise as a punishment, or boring or something that’s not for them because they don’t do it well. 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” activities and
• 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. It helps keep your blood pressure and blood cholesterol at healthy levels. It helps build strong and healthy muscles, bones and joints. It’s also a fun way to stay at a healthy weight. Physical activity can also lead to a better night’s sleep.

Physical activity can help reduce your risk of getting some serious diseases, such as cancer and type 2 diabetes. Also, regular physical activity helps you feel happier, be more alert, deal with stress and concentrate better.

It’s recommended that you get at least 60 minutes of moderate to energetic 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.

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. Playing tag or dodge ball with friends or taking a bike ride with your family works. So does shooting baskets in the driveway or putting on some music and dancing around your room by yourself. Even playing the kinds of video games where you’re on your feet and moving counts. 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!

For Discussion: Have students brainstorm ways they can get 60 minutes of “active” activities a day at home and at school.
**Grades K–2**

**Activity: Create a Class Activity Book**

Materials: Paper, crayons or markers, yarn, ribbon or preferred “book binding” materials, laminating materials if desired

Objectives: To broaden students’ knowledge of enjoyable physical activities and help students who aren’t physically active find activities they will enjoy.

1. Have students brainstorm “active” activities that can be done in long and short periods of time. Encourage them to come up with activities by giving different scenarios. For example, ask about activities you’ve done in PE class, at birthday parties, at summer camp, in the park, with their families, and during recess. They can be outdoor or indoor activities, like dance, gymnastics or karate.

2. Ask each student to choose two or three activities that they enjoy doing and, depending on the writing level of the child or class, write a page of instructions and/or illustrations for each activity.

3. These activity pages can be laminated, if desired, and bound into a class book or reproduced so each student can have a set.

4. The books can be referred to whenever an activity break is desired.

Discussion: Discuss with students that not everyone likes the same activities. Talk about how important it is for each of them to find activities that they enjoy doing.

**Grades 3–5**

**Activity: Paper Bag Games 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 students into teams, with 3-5 students per team.

3. Have each team pick 5 household labels out of the paper bag.

4. Instruct the teams to come up with an “active” game or games using those 5 items. Encourage students to think about both indoor and outdoor games.

5. Have teams write up their new activity using the Our Paper Bag Game sheet provided. Then take turns presenting them to the class.

6. Each teams’ sheets with their invented game(s) can be reproduced and shared with all students so they can try out the new games at home.

**Grade K–5**

**At Home Activity Extension: Family Activity Book**

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

**Grades K–5**

**Activity: Class Challenge: Classes challenge each other to get 60 minutes of activity in the classroom per day.**

Materials: Classroom Activities Progress Chart

Objective: To increase students’ excitement about and commitment to physical activity.

1. Discuss with your class the benefits of doing 60 minutes of activity each day, broken into shorter periods of 10-15 minutes at a time.

2. Suggest to your class that they challenge another classroom to see if they too can achieve 60 minutes of physical activity during class time.

3. Optional: Have your class write a class letter to challenge the classroom you’ve chosen.

4. Keep track of the challenge on the Classroom Activities Progress Chart.

5. Share your class results weekly with the competing class.

Discussion: After a week or two of completing 60 minutes per day of physical activity, ask your students if they notice any difference in how they feel, either in general or during the physical challenges. Do they feel it’s easier to concentrate on school work when they have the activity breaks? Are they sleeping better? Do they feel better in general? Is doing the activity any easier now than it was on the first day?

**Grades K–2**

**Activity PE Class: Warming Up to Activity**

Have pairs of students lead active warm-up activities prior to PE class to get everyone’s heart pumping.

Objective: To help students add physical activities to their lives and make each student eager to participate in physical activities by giving each a turn as the leader.

**Grades 3–5**

**Activity PE Class: Warming Up to Activity**

Assign pairs of students to create warm-up 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 by giving each a turn as leader.
Calories In, Calories Out — Eating For A Heart-Healthy Life

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 one 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.

Being overweight is when a person has more body fat than is healthy. Currently, 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 bodies healthy and strong:

- Get at least 9 hours of sleep at night (kids 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).

Be Balanced: Calories In, Calories Out

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. 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.

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

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 their body needs for energy, the extra energy can’t overflow like gas in a car. Instead it gets 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.

INTERESTING FACT: It takes 3,500 calories to make a pound of fat.
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 and choose foods of each type, described below, every day.

**Grains:** Examples are bread, cereal, pasta, rice and crackers. Choose whole-grain or whole-wheat products. They have more fiber (something your body needs).

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

**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.

**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 (like cookies, candy and cake) as much as possible. They are often high in calories but don’t provide the vitamins, minerals or fiber that you need.

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*Based on an 1,800-calorie diet.

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**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

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**FUN FACT:**

Bananas are loaded with potassium. Potassium is important in keeping your blood pressure at a healthy level.

**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.
Learning to read and understand the labels on the back of food packages is important to make healthy food decisions. 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 food packaging labels is the only way to know exactly what is in packaged foods. 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 a lot or relatively few 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*

**STOP! If Nutrition Labels Show High Amounts of 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 extra benefits like vitamins, calcium or fiber.

**GO! If Nutrition Labels Show High Amounts of These**

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

*based on a 2,000-calorie-a-day diet
Grades K–5

Activity: Food Sort — Least to Most Healthy

Note to teachers: This activity is easy to adjust to fit the level of your grade and class. Just offer more or less foods to sort and clearly healthy/unhealthy ones vs. foods that are harder to classify as healthy or not.

Materials: A wide assortment of food packaging representing all levels of healthiness (you might want to ask parents to save and send in food packaging)

Objective: To gauge students’ knowledge about healthy vs. less healthy foods and make students more aware of what foods are healthy and less healthy.

1. Review healthy vs. less healthy foods with your students.
2. Split the class into two or three teams (depending on the size of your class).
3. Provide each team with a wide mix of food packaging.
4. Have each team place the food in order from least healthy to most healthy.

Discussion: Have each “team” present its food sequence and explain the reasoning behind this choice. Discuss choices as a class.

Additional Activity: Challenge each team to create a healthy, balanced meal using the foods/food packing/labels. Is this possible? If not, see if teams can trade items with other teams so both teams have a more balanced meal.

Grades K–2

Activity: Healthy Heart Food Collage

Materials: Cooking, family and home magazines (you might want to ask parents to save and send in magazines or circulars), poster board for each student, scissors and glue

Objective: For students to think about and demonstrate their knowledge of which foods are healthy.

1. Review healthy vs. less healthy foods.
2. Have students go through magazines/circulars and cut out images of healthy foods.
3. Have students create collages with the pictures they’ve cut out.

Discussion: Talk to students about their collages and how they decided which foods were healthy and which were not. Discuss using this knowledge for making similar choices about what they eat.

Grades 3–5

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. Ask each student to self-assess how healthy they think their eating habits are.
2. Challenge students to keep a food journal for a week, writing down everything they eat or drink.
3. Hand out the Food Journal sheet or small notebooks for students to use as their journal.
4. During the week, remind students to keep up with the entries in 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. Were any of them surprised at how healthy or unhealthy their eating habits were? Ask if any students feel they will make changes in their eating habits.
Grades K–2
Activity: Class Healthy Cookbook
Materials: My Healthy Dish sheet
Objective: To make students aware that “healthy” doesn’t mean “yucky,” ask them to make their favorite foods healthier with a few changes. To raise parents’ awareness, include them and make them aware of what their children have been learning.

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

Discussion: Talk with your students about how hard or easy it was to make favorite foods healthy. Have students share ideas with each other for making healthy foods tasty and fun.

Grades 3–5
Activity: Class Healthy Cookbook
Materials: My Healthy Dish sheet
Objective: To make students aware that “healthy” doesn’t mean “yucky” and that they can make their favorite foods better for them.

1. Have students think of a favorite recipe or food.
2. Have them make it healthier but still appealing to them.
3. Have them write the new “recipe” on the My Healthy Dish sheet and submit it for a class cookbook.
4. Copy recipes, then “bind” and share the Healthy Cookbook with students.

Discussion: Talk with your students about how difficult or easy it was to make favorite foods healthy. Have students share ideas with each other for making healthy foods tasty and fun.

Grades: K–5
Activity: Field Trip to the Grocery Store
Materials: Grocery Store Worksheet, legal pads or notebooks for students to use as “portable desk tops” for completing the worksheet in store.
Objective: To raise awareness of the wide range of healthy foods available in your local grocery store and continue education on healthy vs. not healthy foods.

1. Arrange for a field trip to your local grocery store by getting permission from the store manager.
2. Invite some parents to chaperone.
3. Prepare students in advance by reviewing the Grocery Store Worksheet.
4. At the grocery store, make sure to explore the areas suggested in the worksheet.

At-Home Option: If a field trip is not possible, have students complete the worksheets during grocery store visits with their parents.

Discussion: Review the worksheet with students to make sure they have correct answers and know why they were correct. Ask your students:

• What, if anything, did notice in the grocery store that you never noticed before.
• What foods you might ask your parents to purchase that you have never asked for before and why.
• If they were surprised by anything they learned? What surprised them?
Grades K-2

Activity: Plant a Milk Carton Garden

Materials: Individual (small) milk cartons (1 for each student) or quart size milk cartons can be cut down, potting soil, bean seeds, water, sunlight or growing lamps

Objective: To give students an idea of where natural, healthy foods come from.

1. Have students rinse out milk cartons and open the tops fully to create rectangular planting boxes. (Younger students might need help with this.)
2. Have students write their names on the outside of the milk carton with a marker or masking tape and a pen.
3. Have students fill their milk carton about half full with potting soil.
4. Have students plant two or three bean seeds inside their milk carton.
5. Have student add another scoop of potting soil to their milk carton.
6. Set the milk cartons where they will be in the sun for at least part of the day. If sunlight isn’t available, put milk cartons under grow lamps.
7. Have students water their milk carton garden each day, and watch their bean plant grow over the weeks.

Discussion: Talk to your students about where their food comes from and the differences between natural and processed foods. Read the ingredients from the nutrition labels of some processed foods and ask students what they think of some of the less natural ingredients.

Grades 3-5

Activity: Guess Who’s Coming to Lunch?

Materials: Class Healthy Cookbook or other healthy recipe collection, class-raised funds or assign students to bring in ingredients

Objective: For students to use their new knowledge of healthy foods to plan, shop for and make a healthy meal for another class, teachers, parents or each other. To give students ownership over healthy eating to encourage them to make healthier choices.

1. Make and deliver invitations to “guests.”
2. Establish a budget if class funds are to be used.
3. Choose two or three options for each “dish” your class will make and have students vote on which dishes they would like to make.
4. Review the menu with class to make sure it’s a balanced and healthy meal. Have students adjust the menu as needed.
5. Prepare a shopping list, keeping the budget in mind if class funds are to be used.
6. Assign ingredients to each student if class funds aren’t being used.
7. Make sure you have items needed for preparation and paper goods or everything you need from the school cafeteria.
8. Assign teams to prepare each “dish.” (An adult helper might be needed for each team.)
9. Assign teams for different clean-up duties.
10. Students prepare and serve food to guests and themselves.
11. Clean up.

Discussion: Talk to your students about how they felt about the healthy foods they prepared. Did the fact that they picked and prepared the foods themselves make them more enjoyable to eat? Why? Discuss what other healthy meals they’d like to prepare.
Grade 3-5

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

Materials: Healthy Report Cards

Objective: For students to assess the healthfulness 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.
Say NO To Tobacco

Note to Teachers: Smoking is the No. 1 cause of preventable death in the United States. It’s never too early to talk to children about the dangers of smoking. Making them aware of the dangers can help them decide not to smoke.

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.

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. In addition to the nicotine, tobacco has lots of other poisonous chemicals in it. These poisons destroy your body over time, especially your heart and lungs.

Think about whether you would put any of these in your body:

- 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 breathed in by people 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.

Note to Teachers: Ask the staff at your school set a good example for students. If 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 and type “smoking cessation” or “quit smoking” in the search box.

ACTIVITIES

Grades K–5

Activity: Making an Anti-Smoking Commercial

Materials: Paper, pen, art supplies if desired, 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 persuade other kids to never smoke.
4. If possible, make sure 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 video taped.

Note to Teachers: This activity can be done as a whole class activity if desired.

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 older students why they think people start smoking despite the facts about cigarettes and other tobacco products.
Grades K–5
Activity: Making Anti-Smoking Posters
Materials: Poster board, markers or paint, other art supplies
Objective: For students to think about and be able to demonstrate the reasons why it's dangerous to smoke. To give students a voice in spreading the anti-smoking message.

1. Discuss with your students what messages they want to share about the danger of smoking. Put those messages on the board.
2. Pair up students and encourage them to use their creativity to make eye-catching posters that spread the anti-smoking message.
3. Display the posters around the school, if allowed.

Discussion: Ask students what they would think if they were walking down the school hall and saw the posters. How would it make them feel about smoking? How likely is it that they would think about the dangers of smoking before seeing the posters?

Grades K–5
Activity: Take the No Smoking Pledge
Materials: No Smoking Pledge provided or a No Smoking Pledge created by your class (recommended for grades 3–5)
Objective: To encourage students to think about how they feel about not smoking, 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.
3. 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.
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.

**Bedtime** — is there a more dreaded word? Most kids hate going to bed, which is 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 affect kids’ growth.

If you’re like most kids, you’ve had a busy day. There’s school, activities, playing with friends, homework, household chores. It’s no wonder you get tired. You’re not alone — everyone and every living thing needs sleep. And that’s because 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 10-11 hours per night. So stay away from drinks with caffeine like some sodas, take a nice warm bath, turn off the TV and the computer, and go to bed.

**ACTIVITIES**

**Grades K-5**

**Activity:** Time/Reading an Analog Clock: Calculating how many hours of sleep you get vs. how many you need

**Materials:** Analog clock, paper and pen

**Objective:** For students to figure out if they’re getting the right amount of sleep and to practice time-telling skills with an analog clock.

1. Ask students how they feel when they don’t get enough sleep. Review the reasons why we all need to get plenty of sleep.
2. Have students write down what time they usually go to bed and what time they get up on school days.
3. Have students calculate how many hours of sleep that is.
4. Now have students calculate the difference between the 10 hours of sleep they’re supposed to get and the hours they’re actually getting.

**Note:** Kindergarteners and first-graders probably will need help with the calculation.

**Discussion:** Talk to students about what types of things keep them from sleeping and what types of things help them sleep. Have students share ideas about how to more easily get to sleep.

**Grade 3-5**

**Activity:** Create a daily schedule that allows for 10 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 10 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 10 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, play time, 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 10 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?
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 the blood.
3. An organ in the body called the pancreas makes a hormone called insulin.
4. Insulin makes the glucose go into the body’s cells.
5. Once in the cells, the glucose gives the body energy.

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 healthy.

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

A person with type 2 diabetes is at risk for problems with almost every part of the body unless he or she changes 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.

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.
Grades K–2

Active Activity: Insulin Tag: Active game to illustrate the role of insulin in getting glucose into cells and how diabetes interferes with this

Materials: Gymnasium or large open play area, “G”, “I”, “D” labels or name tags for students. “Blood” sign for starting point, “Cells” sign for cell finish area, cones

Objective: To give students a physical representation of how diabetes and insulin work.

1. Set up the gym as shown:

2. Label about 40 percent of your students with an “I” name tag, because they each represent insulin.

3. Label about 50 percent of your students with a “D” name tag; they will represent diabetes.

4. Label about 10 percent of your students with a “G”; they represent glucose.

5. The object of the game is for the “insulin” students to help the “glucose” students get safely from the “blood” to the “cell.” But each “insulin” student can only get one “glucose” student to safety at a time. The “glucose” and the “insulin” students must be touching or the “glucose” student is in danger of being tagged by a diabetes student. If that happens, they must return to the blood.

6. A “glucose” student can try to get across the gym to the cell without being joined to a “insulin” student. However, then they’re in danger of being tagged by a “diabetes” student and having to return to the “blood.”

7. If a “glucose” student and an “insulin” student aren’t touching as they make their way across the gym, then the “glucose” student can be tagged. If that happens, he or she must go back to the “blood.”

8. Have students switch roles.

Discussion: Review and explore what happened during the game to assess if your students have a clear understanding of how diabetes occurs.
Activity: You Are the Doctors: Creating a food and activity plan for a diabetes patient

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

Objective: To make students aware of: how conscientious someone with type 2 diabetes should be about diet and exercise in order to manage the 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 or her diet and physical activity.

2. To do this they will need to make a one-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 1,500–1,800 calories a day and carbohydrates should make up no more than half of the calories. Also trans and saturated fats and added sugars should be avoided.

5. Have the students use the Internet to research different activities and how many calories are burned per hour for those activities, and nutrition information for foods.

6. Have students fill out the Type 2 Diabetes Food and Activity Plan (Elementary version) with their meal plan and activities.

7. Students can also visit the grocery store to read nutrition labels to get nutrition information.

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
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
The Hoops For Heart website provides event resources for coordinators, such as tournament setup suggestions and forms needed to order thank-you gifts.

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

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

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 foodservice staff.

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
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
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**

This website is 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. 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**

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

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**Advocacy Web Resources**

**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/schoolhealth/advisorycouncil**

The North Carolina Healthy Schools Program has put together resources 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.
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.

Jump Rope 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 rope-jumping event encourages elementary 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 Jump Rope For Heart event. You’ll get:

- Step-by-step instructions on scheduling, promoting and conducting the event
- Complimentary jump ropes to use during 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