



American Alliance for  
Health, Physical Education,  
Recreation and Dance

American Heart  
Association  
*Learn and Live®*

Elementary School Level

# Taking Care of YOU!



Using knowledge, food and fitness to keep your body healthy

2007-2008



A Teacher's Resource



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**Bonus CD**  
Check it out!

# Taking Care of YOU!

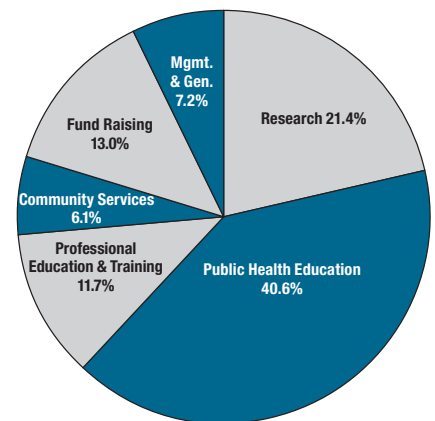
## Thanks for sponsoring a Jump Rope For Heart or Hoops For Heart event!

We appreciate your commitment to improving your students' health and fitness, while helping to raise funds for the American Heart Association. Your donations help to fund vital research and educate the public about cardiovascular disease and stroke. Thank you for being a partner in this important cause.

Since 1924 the American Heart Association has been working to fight heart disease and stroke. Our efforts focus on research, education and advocacy led by dedicated volunteers and staff.

- **Research:** Since 1949, we have funded more than \$2.7 billion in cardiovascular and stroke research, including work on clot-busting drugs. Over 21 percent of every publicly donated dollar goes to scientific research.
- **Education:** Last year our Emergency Cardiovascular Care programs trained more than 10 million emergency medical services personnel, healthcare professionals and citizens in how to perform CPR or use an automated external defibrillator (AED) to save lives.
- **Advocacy:** You're The Cure is the American Heart Association's nationwide advocacy network which works through legislative channels to increase funding for cardiovascular research and treatment. On the state level, You're The Cure has made significant progress in protecting the public from secondhand smoke and in securing more funding for physical education

**American Heart Association  
Expenditures for 2005–06**



## The American Heart Association dedicates significant resources to improving children's heart health.

Since 2003, the association has committed over \$44.1 million for research projects related to children. In 2005–06 alone, we committed \$11.1 million for research related to children.

- Each year, the American Heart Association highlights major gains in heart disease and stroke research. Listed among the 2006 Top 10 research advances is the American Heart Association's scientific statement on children and exercise. The American Heart Association recommends that schools lead the way to ensure that all children participate in adequate physical activity and suggests the amount of time that students should be active each week.
- The American Heart Association and the William J. Clinton Foundation have joined to form the Alliance for a Healthier Generation to combat the spread of childhood obesity and serious diseases, such as heart disease and diabetes, associated with it. The Alliance is taking a comprehensive approach to stop the increase in childhood obesity by 2010. On May 3, 2006, the Alliance announced a landmark agreement to curb high-calorie beverages in all schools.
- The American Heart Association is currently funding 52 diabetes-related projects that total \$7.2 million. In the past 10 years, we have awarded \$23.2 million to diabetes-related research.

## Materials Included in This Kit

- Teacher's Resource Guide
- Educational Posters
- Bonus CD with additional resources

## Deaths from heart attacks drop

By Steve Sternberg, *USA TODAY*, May 1, 2007

A sharp drop in heart attack deaths in more than a dozen countries coincides with global efforts to make sure patients receive proven treatments, doctors report today.

A study of 44,372 patients in the USA, Canada, Europe and South America from 1999 to 2006 found that deaths, heart failure and cardiogenic shock (when the heart goes into shock and loses pumping power) all declined in patients hospitalized for heart attacks or for life-threatening chest pain.

In 2001, the American Heart Association launched an effort to encourage doctors to follow guidelines for heart care based on the latest scientific evidence. Two years ago, the agency that pays for Medicare began docking hospitals part of their repayment, now up to 2%, if they didn't report what percentage of their patients were getting certain guideline-related heart therapies. The European Society of Cardiology has taken more informal steps to achieve the same goals.

Cardiologist Sidney Smith of the University of North Carolina—Chapel Hill, a leader of the guidelines movement, says the findings are “exactly what we would hope would happen from the major guideline efforts in this area over the past decade.”

During the study, hospital deaths fell 18 percent in patients with the most severe form of heart attack, the study shows. There also was a significant decline in rates of stroke and heart attack six months after the initial hospitalization, researchers say.

### M. Cass Wheeler

Chief Executive Officer, American Heart Association

*“...by providing healthcare facilities with evidence-based practice guidelines and quality improvement processes and metrics, we have helped to significantly improve outcomes for many heart attack patients. It's wonderful to see our Get With The Guidelines program receiving the recognition it deserves. It is clearly making an impact on people's lives and that's exactly what our strategic plan sets out to achieve.”*



Heartfelt thanks to Kris Brockhagen, Lower School Physical Education Coordinator, Episcopal School of Dallas, for being our Educational Kit consultant. Special thanks also to: The AHA/AAHPERD Joint Projects Committee; Dr. Derrick Mears, Ph.D., A.T.C., Physical Education Professor, Western Washington University; and the National Association for Sport and Physical Education (NASPE) for aligning the lesson plans with standards.

More information on the NASPE standards can be found on the Bonus CD in this kit!



Each year, the American Heart Association identifies medical advances that may have significant impact on heart disease and stroke prevention and treatment in the future. This year, two studies were funded by the American Heart Association, two were presented at its 2006 Scientific Sessions and five were published in its medical journals.

## 1. Statins can reduce stroke risk in stroke survivors

In a new study, stroke patients who took the drug atorvastatin to lower cholesterol also reduced their risk of a second stroke by 16%. This is important because stroke survivors are at high risk for another stroke, but risk-reduction options are limited. *The New England Journal of Medicine*, Aug. 10. 2006; 355(6):549–559. [nejm.org](http://nejm.org). Funding: Pfizer.

## 2. After a heart attack, use painkillers with caution

Heart attack patients using COX-2 inhibitors and other non-steroidal anti-inflammatory drugs (NSAIDs) may be at higher risk of death. Higher rates of death and hospitalization for repeat heart attacks were associated with NSAID use compared to non-use; they were highest with COX-2 drugs or high doses of non-selective NSAIDs. Patients need not take NSAIDs for a long time to be at higher risk. *Circulation*, June 19. 2006; 114:1056–1062. <http://circ.ahajournals.org>.

## 3. Major birth defects after exposure to ACE inhibitors

In a new study, pregnant women taking ACE inhibitors in the first trimester to control blood pressure had a 7.1% higher risk of birth defects. This rate was 2.7 times greater than the rate in those not exposed. Women taking ACE inhibitors should not become pregnant while taking them. Those who may become pregnant should discuss other hypertension control options with their doctor. *The New England Journal of Medicine*, June 8. 2006; 354:2443–2451. [nejm.org](http://nejm.org).

## 4. Heart pump promising for kids awaiting transplant

Ventricular assist devices that keep transplant candidates' hearts beating may be an option for children whose bodies are large enough. In a 10-year study, 77% of children with VADs survived to transplantation; in the last three years of the study, 85% survived. *Circulation*, May 15. 2006; 113: 2313–2319. <http://circ.ahajournals.org>.

## 5. Late reperfusion fails to reduce CVD complications

Balloon angioplasty plus stenting failed to reduce major cardiovascular complications in patients who had the procedure three to 28 days after a heart attack. These findings could lead to fewer unnecessary coronary interventions; early treatment is critically important. American Heart Association's Scientific Sessions, November 2006. [scientificsessions.org](http://scientificsessions.org); *The New England Journal of Medicine*, Dec 7. 2006; 355:2395–2407. [nejm.org](http://nejm.org).

## 6. New guidelines on preventing second stroke, TIA

The greatest threat survivors of a stroke or transient ischemic attack face is another stroke (up to 40% within five years). New guidelines that say stroke and TIA should be treated alike address risk reduction, treatments (anticoagulants, antiplatelet agents, carotid artery surgery, angioplasty) and special populations: pregnant and menopausal women, ethnic minorities. *Stroke*, Jan. 25. 2006; 37:577. <http://stroke.ahajournals.org>. Funded by the American Heart Association.

## 7. Schools should take lead in increasing kids' activity

An American Heart Association statement urging schools to ensure all students get adequate physical activity examines PE programs in schools and teacher education. The association also is lobbying in every state to require quality, daily PE in all grades; adherence to national standards for elementary/middle schools and a PE requirement for high school graduation. *Circulation*, Aug. 14. 2006; 114:1214–1224. <http://circ.ahajournals.org>. Funded by the American Heart Association.

## 8. Link between hospital treatment, patient outcomes

Hospitals that follow American Heart Association/American College of Cardiology guidelines for treating heart disease can improve patients' odds of survival. Death rates from one serious heart condition were 6.31% in hospitals with the lowest adherence rate and 4.15% in those with the best rate. Every 10% increase in adherence was associated with a 10% decrease in risk of dying in the hospital. *JAMA*, April 26. 2006; 295:1912–1920. [jama.com](http://jama.com).

## 9. New cholesterol classification for teens

New guidelines that consider age and gender can identify teens with abnormal cholesterol levels that put them at risk for cardiovascular disease later in life. Their major advantage is that they reflect the natural fluctuations in cholesterol that occur with growth/maturation. *Circulation*, Aug. 28. 2006; 113:1056–106. <http://circ.ahajournals.org>.

## 10. Tissue engineering grows heart valves

For the first time, researchers used a rabbit's cells to grow heart-valve-shaped tissue inside its body. The new valves functioned in a similar way to natural valves in blood flow studies in test tubes. This process may someday make it possible to grow rejection-proof replacement valves using a person's own cells. American Heart Association's Scientific Sessions, November 2006. [scientificsessions.org](http://scientificsessions.org).

Become an Advocate for More Federal Funding for Heart & Stroke Research. Heart disease and stroke take a devastating toll on our nation. Yet the National Institutes of Health invests only 7% of its budget on heart research and just 1% on stroke research. Visit [researchsaveslives.org](http://researchsaveslives.org) to help increase NIH heart and stroke research funding.



# Fact File: We need PE in our schools.

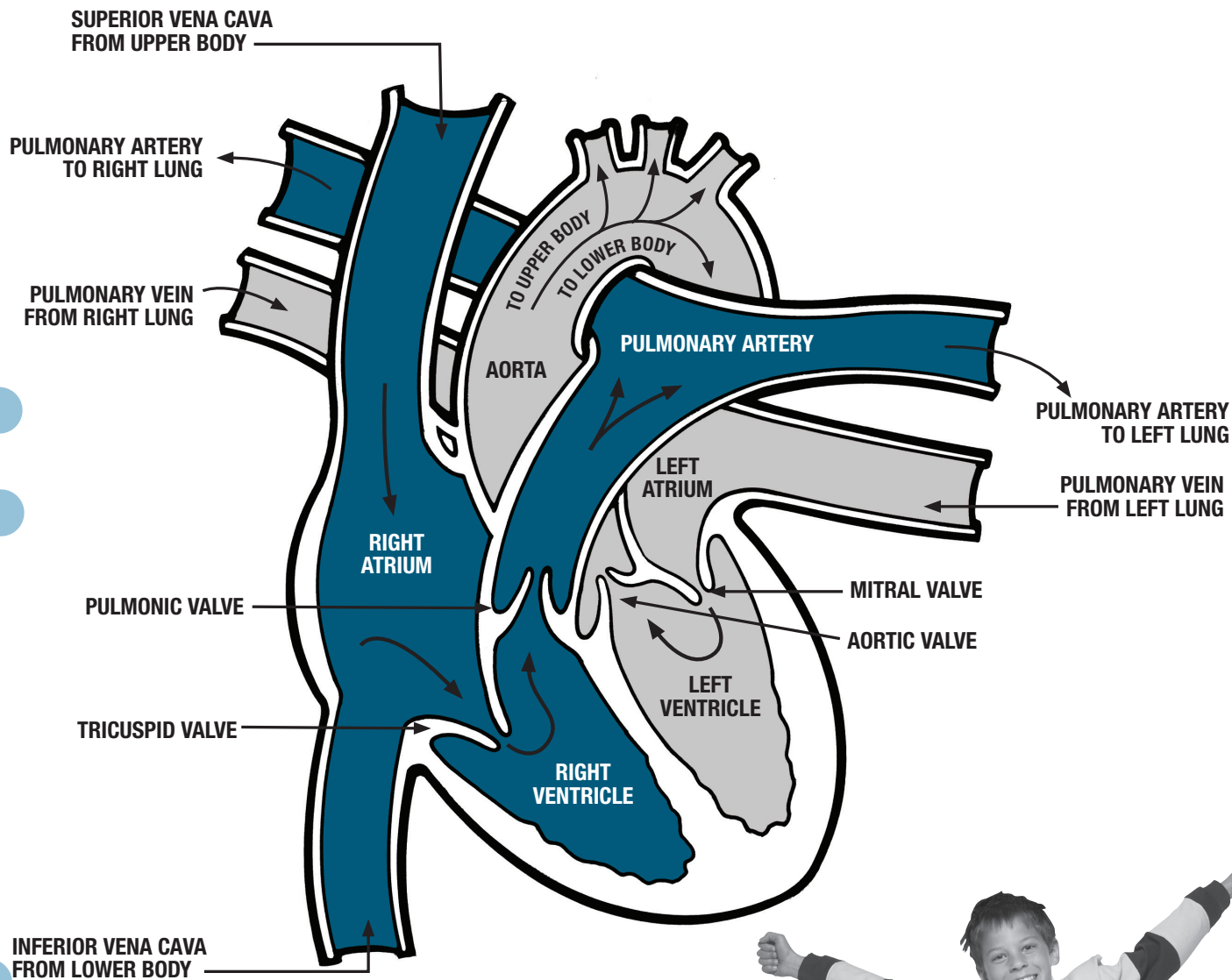
**Many studies have shown that children who get sufficient physical activity have better academic results. When you add in the growing problem of childhood obesity and the risk for adult-onset diseases in our children, it's time to fight for physical activity in schools. Here are some facts:**

- Since 1980, the percentage of overweight children has nearly doubled and the percentage of overweight adolescents has nearly tripled. In 2000, 15 percent of children aged 6 to 11 were overweight and nearly 16 percent of adolescents were overweight.
- About 60 percent of overweight children already have at least one other risk factor for heart disease (e.g., diabetes, high blood pressure or high cholesterol).
- Type 2 diabetes in adolescents increased ten-fold between 1982 and 1994.
- Fewer than 1 in 4 children get 20 minutes of vigorous physical activity per day, and fewer than 1 in 4 get at least 30 minutes of physical activity per day.
- Between 1991 and 1999, the percentage of students who took physical education daily dropped from 42 percent to 29 percent.
- Participation in all types of physical activity declines as age or grade in school increases. By the time students reach their teens, nearly half of America's youth are not vigorously active on a regular basis, and over one-third aged 12 to 17 are physically active less than 3 out of 7 days a week.
- Nearly 200 studies on the effect of exercise on cognitive functioning suggest that physical activity supports learning.
- Two studies demonstrated that providing more time for physical activity can lead to increased test scores, particularly in the area of mathematics. Another study linked physical activity programs to stronger academic achievement, increased concentration and improved math, reading and writing test scores.
- Children with daily physical education exhibit better attendance, a more positive attitude to school and superior academic performance.

## Do You Know?

The Jump Rope For Heart and Hoops For Heart programs reach more than 7 million students in over 30,000 schools with messages about the importance of regular physical activity, good nutrition and avoiding tobacco.

# Taking Care of YOU!



# Lesson: How Your Heart Works

The walls of the heart are made of thick muscle. When they contract, the blood is pushed through tubes called **blood vessels**.

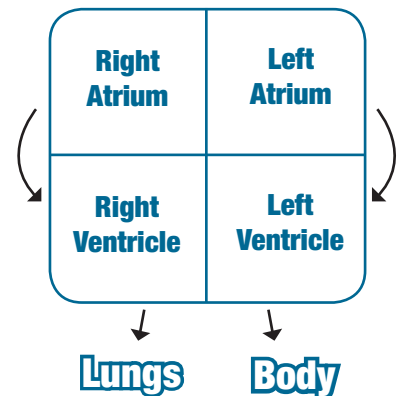
There are different types of **blood vessels**.

- **Arteries** are large, thick blood vessels that carry blood away from the heart. They are also the places where you can sometimes feel your pulse. The aorta is the largest artery.
- **Veins** are large blood vessels that carry blood back to the heart. Veins carry carbon dioxide, sit closer to the skin and have a bluish color.
- **Capillaries** are the smallest blood vessels. They carry blood to and from all the small places in the body. Capillaries feed into veins and veins feed into arteries.

You can think of the heart like two pumps side by side. The pump on the right side moves blood to your lungs, where waste gases such as carbon dioxide are removed and oxygen is added. Freshly oxygenated blood returns to the pump on the left side, which moves it out into the rest of your body.

Your heart is similar to a two-story house with four rooms: two rooms on the top floor and two rooms on the bottom floor. Each room is called a chamber. The right and left atrium are the upper chambers. The right and left ventricle are the lower chambers. Blood carrying carbon dioxide travels from the right atrium, to the right ventricle, then into the lungs where carbon dioxide is exchanged for oxygen. Blood carrying oxygen travels from the left atrium to the left ventricle and onward to the rest of the body.

The heart contains valves that control the blood flow direction. Think of them as doors between the rooms that open and close to let the blood flow in or to stop the blood flow.



## This activity meets the following National Standards for Physical Education:

Standard 2: Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities.

## Do You Know?

When you pledge allegiance to the flag, you may place your hand over the left side of your chest because that's where most people think the heart is. Actually the heart is in the middle of the chest between the lungs.





# I Want a Healthy-Heart Activity

for K-2

## Objective

To increase the heart rate in a short period while working together.  
Students will also be reminded of the importance of having a healthy heart.

**Materials and Setup:** bandanas

## Procedure

1. Assign  $\frac{1}{3}$  of class to get a bandana. These students put their bandana on the top of their waistband. The student with the bandana is the “healthy heart.”
2. On the signal, the students without bandanas try to steal a bandana, so they can have a “healthy heart.” If the person with the bandana loses the bandana, they must try to go steal another “healthy heart.”

## Discussion

Let's name a few of the activities that make your heart healthy. What other things can you do to make your heart healthy?

## Homework

Practice making good choices to keep your heart healthy and happy.

### This activity meets the following National Standards for Physical Education:

- Standard 1: Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.
- Standard 2: Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities.
- Standard 5: Exhibits responsible personal and social behavior that respects self and others in physical activity settings.



# Put Your Heart Into It Activity

for 3–5

Source: Pam Ernest, Physical Education Teacher, Arlington I.S.D., Texas

## Objective

Students will review the names of parts of the heart in a fun and exciting activity.

**Materials and Setup:** scooter, blank heart poster from Bonus CD, completed heart poster from Bonus CD, heart parts cards from Bonus CD, boxes

## Procedure

1. Divide group into relay lines.
2. The first person in each line will use the scooter to scoot to the “heart parts” box and pull out a label. They leave the scooter and hurry to their heart to place the label in its proper place on the teams’ blank diagram of the heart. They then return to their scooter and scoot back to the line and tag the next person.
3. Relay continues until all the labels have been put on the diagram of the heart in the correct location.
4. If at any time a player does not know where the label belongs, they can take that label and scooter back to their team to ask them where it belongs. If the player still has trouble placing the label on the heart, they can go to the wall and look at the heart poster to find the answer.
5. Heart Attack: If a player draws a “heart attack” card, he must put all the body parts and labels back into the boxes and the team must start over. Place only one of these labels in each team box. Return card to teacher so team does not draw it again.
6. Stroke: If a player draws a stroke, he must turn to his teammates and yell “stroke!” The next player in line must run down and push the stroke victim back to the line. Neither player is able to place any label on the heart.

## Discussion

What did you learn or remember about the heart when you played this game?

### This activity meets the following National Standards for Physical Education:

- Standard 1:** Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.
- Standard 2:** Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities.
- Standard 5:** Exhibits responsible personal and social behavior that respects self and others in physical activity settings.

## Do You Know?

Your heart beats about 100,000 times in one day and about 35 million times in a year. During an average lifetime, the human heart will beat more than 2.5 billion times.

# Snack Food Clean-up Activity

for K-2

## Objective

**Students will make fast decisions recognizing and throwing away high-fat, high-cholesterol snacks.**

**Materials and Setup:** Nerf balls, beanbags or other soft throwing objects

## Procedure

1. Divide class into 2 teams.
2. Divide the playing area in half, separated by a boundary line.
3. The teams must stay on their side of the playing area.
4. Students begin the game with an object to throw.
5. On signal, students throw all the unhealthful snacks onto the other team's side as quickly as possible.
6. Students may only throw one ball at a time.

## Discussion

How does this activity relate to food choices that are made on a daily basis? Saturated fat and cholesterol in the diet can raise blood cholesterol levels and increase the risk of heart disease. Have students name foods high in saturated fat and cholesterol, such as meat, butter, cream, whole milk, etc. Ask students to express positive feelings about making healthful choices and avoiding saturated fat and cholesterol.

## Homework

When you accompany your parent(s) to the grocery store, teach them what you learned about why it is better to not buy so many of the tempting high-fat and high cholesterol foods.

### **This activity meets the following National Standards for Physical Education:**

**Standard 1:** Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

**Standard 2:** Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities.

**Standard 5:** Exhibits responsible personal and social behavior that respects self and others in physical activity settings.



# Food Sort Relay Activity

for K-5

## Objective

**Students will be able to sort food into 5 appropriate categories.**

**Materials and Setup:** 5 boxes, food cards from Bonus CD

## Procedure

1. Groups are divided into teams (relays).
2. Each team begins with 12 items to sort.
3. On the signal each group begins sorting. One person per team takes one of their food cards and places it in the appropriate food grouping box.
4. If the item being sorted is being placed in the wrong box, the teacher asks them to go back to their team to ask the team to help them decide which box it belongs in.
5. Player returns to the box and tries again.

## Discussion

Were there any foods in which you were not sure what category they belonged?

## Homework

Ask students to incorporate this knowledge into their daily food choices, choosing a variety of foods to eat each day.

## This activity meets the following National Standards for Physical Education:

**Standard 1:** Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

**Standard 2:** Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities.

**Standard 5:** Exhibits responsible personal and social behavior that respects self and others in physical activity settings.

## Do You Know?

Water is the nutrient most essential for survival. It controls your body's temperature, helps to digest food and remove waste products.



# Healthy Choices Tag Activity

for K-2

## Objective

Students will be able to identify the difference between *sometimes foods* and *everyday foods*.

Materials and Setup: jump ropes

## Procedure

1. Assign a small group of students to be “it.” This group of students will represent high-fat, high-cholesterol snacks chasing the other students and trying to get them to eat unhealthful foods.
2. Ask students to try to visualize the kids who are “it” as sometimes foods and to try to stay away from them.
3. If a child is tagged, he or she must go to a designated area and perform an activity, such as jumping rope 25 times, before returning to the game.
4. If the child calls out the name of an everyday food, such as a fruit or vegetable, before being tagged, he or she may remain in the game and is considered “safe” until the next time they are pursued.
5. Students should try to call out a different snack each time and not repeat those that have already been mentioned.

## Discussion

Before activity, have students list examples of sometimes foods. Explain that it’s best to avoid high-fat, high-cholesterol snacks and choose healthful ones. However, an occasional “treat” is okay. If you do splurge, be sure to choose healthful foods at the next meal.

## Homework

Encourage students to incorporate this knowledge into their daily food choices.

### This activity meets the following National Standards for Physical Education:

**Standard 1:** Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

**Standard 2:** Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities.

**Standard 5:** Exhibits responsible personal and social behavior that respects self and others in physical activity settings.

# Stroke and Heart Attack Activity

for K-5

## Objective

Students will be tested on their knowledge of heart attack and stroke symptoms in a game setting.

Materials and Setup: None

## Procedure

1. Divide class into 2 groups.
2. One will be the "Heart Attack" team and the other the "Stroke" team.
3. When the teacher calls out a heart attack symptom, the "Heart Attack" team turns around and runs back to their boundary line while the "Stroke" team chases them. If they are tagged, the player must play for the other team.
4. When the teacher calls out a stroke symptom, the "Stroke" team turns around and runs back to their boundary line while the "Heart Attack" team chases them.

## Discussion

Since the students have to think very fast, this activity is a real test if they know the symptoms for a heart attack or stroke.

## Homework

Ask students to teach their family members all the warning signs for heart attack and stroke.

### This activity meets the following National Standards for Physical Education:

**Standard 1:** Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

**Standard 2:** Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities.

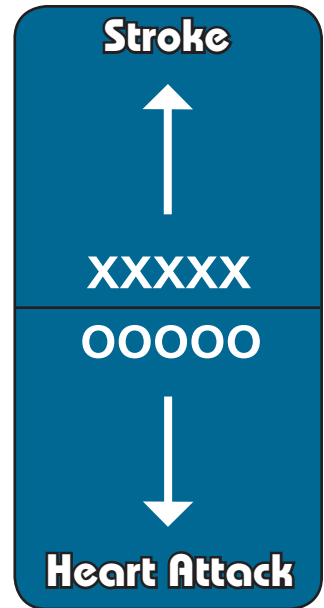
**Standard 5:** Exhibits responsible personal and social behavior that respects self and others in physical activity settings.

## Do You Know?

There are two different kinds of strokes, ischemic strokes and hemorrhagic strokes.

- Ischemic strokes are caused by blood clots that form and block blood flow to the brain. These are most common — over 80 percent of all strokes are ischemic.
- Hemorrhagic strokes are caused by a break in an artery in the brain, causing blood to fill the area and damage the surrounding tissue.

Boundary line



Boundary line



# What Are My Risk Factors?

for K–5

There are several risk factors for developing cardiovascular disease and the more risk factors you have, the more likely you are to have cardiovascular disease. Several of these risk factors are controllable.

**Smoking** — Exposure to other people's smoke increases the risk of heart disease even for nonsmokers.

**High Blood Cholesterol** — A person's cholesterol level is affected by age, sex, heredity and diet.

**High Blood Pressure** — Blood pressure is the force needed to push blood through the body. The pressure when the heart beats is called systolic pressure and when the heart is at rest is called diastolic pressure.

**Diabetes** — Diabetes is a disease where your body does not break down glucose as quickly or efficiently as it needs to.

**Inactivity** — Regular, moderate-to-vigorous physical activity helps strengthen your heart.

**Overweight** — Excess weight increases the heart's work.

## Examples of teaching the risk factors for cardiovascular disease.

**Smoking** — Using a brittle garden hose, you can demonstrate the changes that occur in blood vessels in the body when it absorbs the materials in cigarettes. Blood vessels lose their elasticity over time.

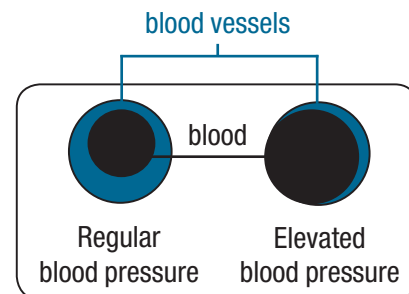
**Cholesterol** — Have students pretend they are blood circulating inside the blood vessels in the body. When a healthy person exercises, the blood travels very quickly and efficiently. Have students move quickly and efficiently inside their typical playing area.

Describe a boy whose life choices affect his health over time. As time goes on, this boy continues to be physically inactive and unconcerned with his eating habits, so the playing area decreases. This activity demonstrates how plaque narrows the blood pathway inside the blood vessels.

As the boy makes no changes in his habits, the play area continues to get smaller. Students will realize that movement is nearly impossible. Explain that when blood flow to the heart is restricted, a heart attack may result. If blood flow to the brain is restricted, a stroke may result.

## High Blood Pressure

- Have students form two tight circles, one inside the other. The outside circle is the wall of the blood vessel and the other group is the blood traveling through the blood vessel.
- On the signal, the outside group holding hands remain standing in their starting position while the inside group holding hands stretch their arms out and expand their circle so they are pushing against the wall of the vessel. After 2–3 seconds have the inside group move back to their starting position to represent the heart at rest.



**Inactivity** — Use the example of a person who wears a cast on a limb for an extended time — muscles under the cast begin to atrophy. Atrophy occurs when a muscle is not being used for a period of time. When the cast is removed, there can be a noticeable difference in size from the other limb. Since the heart is a muscle, it needs to be exercised to remain strong enough to do its job as a pump. If it is not exercised regularly, its pumping ability is lessened.

**Obesity** — Ask students to imagine what it is like to carry something very heavy. The heart has to work harder when you are carrying more weight than necessary. You might consider asking one or two people in each class to carry their books all day and ask them to explain that experience to the class the following day.

## This activity meets the following National Standards for Physical Education:

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# Pyramid Circuit Activity

for 3–5

## Objective

**Students will be able to identify the difference in high-, medium-, and low-intensity activities.**

**Materials:** activity pyramid poster from Educational Kit.

**Setup:** a circuit of 6–8 activities of varying intensity with a card describing the activity at each station.

For example: jump rope, pull-ups, jogging in place, etc.

## Procedure

1. Explain to students that we measure our activity and eating as “energy in” versus “energy out.” When you take more energy in than you use, you gain weight. When you “spend” more energy than you take in, you lose weight.
2. Rotate students through all the stations, having them spend 3–4 minutes at each station. When changing stations, have them start and stop the activity together so that everyone is doing their station activity for the same amount of time.
3. After everyone has completed the circuit, ask the students to rank all the different stations they performed in the level of difficulty.

## Discussion

Discuss how day-to-day activities fit onto a physical activity pyramid and how often you should be doing each type of activity. Ask students why they want to avoid doing only the low-intensity activities all the time and why they need to add some higher-intensity activities into their schedules.

## Homework

Encourage students to keep a log of their activities for one week; including what category of intensity that activity belongs to. Discuss how active they thought they were versus what the log actually shows. Discuss how active they should be in order to maintain a healthy heart.

### **This activity meets the following National Standards for Physical Education:**

**Standard 1:** Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

**Standard 2:** Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities.

**Standard 5:** Exhibits responsible personal and social behavior that respects self and others in physical activity settings.

# Crazy Cones Activity

for K–5

## Objective

**Students will be able to name several aerobic activities that make the heart a stronger pump.**

## Materials and Setup: 25–30 cones

Remind students that the heart works better when it is strong. Because the heart is a muscle, it can be made stronger with regular physical activity or exercise. Explain that there are two types of exercise: aerobic and anaerobic. Aerobic activities use the arm and leg muscles and give the heart (and lungs) a continuous workout. Anaerobic activities build and tone muscles but are not as beneficial to the heart and lungs as aerobic activities.

## Procedure

1. Scatter cones throughout the room; students can help scatter as well.
2. On signal, half of the class runs through the room and tries to tip over all of the cones; while the other half of the class tries to set all of the cones back up again.
3. Switch tasks after about 3 minutes. This is a very vigorous activity and children will tire easily. If necessary take short 30-second breaks to discuss facts about the heart.

## Discussion

What types of activities do you participate in that are aerobic?

## Homework

Select a new aerobic activity to try at home. Work out while watching T.V.!

## This activity meets the following National Standards for Physical Education:

**Standard 1:** Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

**Standard 2:** Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities.

**Standard 5:** Exhibits responsible personal and social behavior that respects self and others in physical activity settings.

## Do You Know?

There are more than 600 muscles in your body.



# Find the Pulse Activity

for 3–5

## Objective

**Students will be able to locate their pulse.**

**Materials and Setup:** jump ropes

## Procedure:

1. Students lie down and are as still as possible. Ask them if they can hear their breathing and see if they can feel their pulse in their neck or chest. (Younger students can place hands on chest to find heartbeat.)
2. Ask students to choose between jumping rope and jogging for 1 minute at a quick pace. (Younger students may leave rope on ground if they will be able to jump quicker.)
3. After 1 minute, ask the students to quickly find their pulse or place hands on chest.
4. Repeat the 1 minute of jumping or jogging and ask them to repeat this process. (Older students: Student can begin counting their pulse on the word “go.” The first number will be “0.” Teacher will ask the students to stop counting after 6 seconds. )
5. Students will then take that number and add a 0 to get their pulse. For example: 6=60. Average resting heart rate is 72–78 beats per minute. After aerobic exercise, the pulse can reach 150–180 beats per minute. (The reason for using the 6 second count is the heart rate decreases rapidly after activity has stopped in a conditioned person.)
6. Have students walk to cool down and retake pulse or check heart rate. Then repeat again with students sitting.

## Discussion:

What did you notice about your heart rate when you exercised? When you rested?

## Homework:

Practice taking heart rate when exercising at home.



## This activity meets the following National Standards for Physical Education:

**Standard 1:** Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

**Standard 2:** Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities.

**Standard 5:** Exhibits responsible personal and social behavior that respects self and others in physical activity settings.

# Around the World Tobacco Activity

for 3–5

## Objective

Students will develop the ability to respond quickly when others ask them to smoke.

**Materials and Setup:** basketballs and court

## Procedure

1. Ask students to line up in formation to play “Around the World.” As they attempt to make baskets, they give a reason why they refuse tobacco before they quickly step to the left or right to try again.

## Discussion

What are some of the responses you would consider using if someone asked you to try smoking?

### This activity meets the following National Standards for Physical Education:

**Standard 1:** Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

**Standard 2:** Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities.

**Standard 5:** Exhibits responsible personal and social behavior that respects self and others in physical activity settings.

## Do You Know?

There are as many as 4,000 dangerous chemicals found in tobacco smoke.

# Tobacco-Free Race Activity

for K-5

Teacher's Guide

## Objective

- Students will understand how smoking negatively affects the ability for the lungs to work to their potential.

**Materials and Setup:** various equipment that can be used as extra workload or extra weight.

## Procedure

1. Explain how tobacco substitutes carbon monoxide for oxygen in your blood, making it harder for muscles and organs to get the oxygen they need.
2. Students are placed in relay lines.
3. On signal, relays begin. Run races without an extra workload and have students time themselves.
4. Run races with an extra workload, such as pulling a tire or carrying a basketball. Have students time themselves again.

## Discussion

Ask students how they thought they did during the second set of relays. Was their time longer or shorter in the second set of relays? Why? Discuss that the person who smokes is not “bad,” but instead, smoking is bad for the health of the person who smokes.

### This activity meets the following National Standards for Physical Education:

**Standard 1:** Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

**Standard 2:** Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities.

**Standard 5:** Exhibits responsible personal and social behavior that respects self and others in physical activity settings.

# Yucky Tobacco Ball Activity

for K-5

## Objective

**Students will learn the toxic chemicals that are found in cigarettes.**

**Materials and Setup:** 13-21 light-weight balls and volleyball net

## Procedure

1. Explain that cigarette smoke contains over 4,000 toxic substances. Use the poster in this kit for reference.
2. Divide class into 2 teams, one on each side of the net. Each team should start with  $\frac{1}{2}$  of the balls on their side of the net.
3. Students get rid of the toxic chemicals (balls) by throwing them over the net as quickly as possible. No balls can be rolled under the net or thrown "out of bounds" or those balls are added back to the offending team's count.
4. After time is called, the team with the FEWEST number of balls on their side wins.

## Discussion

Ask students why they didn't want the toxins on their side of the net.

## This activity meets the following National Standards for Physical Education:

- Standard 1:** Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.
- Standard 2:** Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities.
- Standard 5:** Exhibits responsible personal and social behavior that respects self and others in physical activity settings.

## Do You Know?

Tobacco smoke damages the tiny hairs, called cilia, in the lungs. Smoke paralyzes the muscles that control the movement of the hairs and they cannot effectively trap dust, dirt and germs.





# Educate Parents, Teachers and Your Community

If we expect to influence students' behavior, consistent messages about heart health must go beyond the classroom and echo throughout the school, the home and the community. Students need to see heart-healthy food choices in the cafeteria, at home and on restaurant menus. We need to create opportunities for more physical activity and make it a part of their everyday lives. **For some students, the physical activity they get at school may be their only exercise!**

Here are some ideas to help students and their families live healthier lifestyles. Try posting these on your school Web site or distributing them at events.

## School is the Starting Point!

- Sponsor a Jump Rope For Heart or Hoops For Heart event and get all students and their families involved.
- During the official start of the school day, coordinators can direct each classroom to get up from their desks and perform a variety of exercises each morning on the school's PA system. The physical educator in the school will teach the students and teachers the exercises that will be performed each morning. This is great way to kick-start the brain's learning abilities with increased blood flow.
- Schedule a day once a month as Fitness Day. Set up games and activities for the students to participate in. Make it fun with music and special decorations.
- Schedule Family Fitness at your school. Set up non-competitive games and activities for students and their families to participate in together on one or two evenings throughout the school year.
- Provide nutrition and physical activity information for your school newsletter. If your school doesn't have one, publish your own version! News could include ways to increase physical activity or recipes for low-fat, nutritious snacks or lunches.
- Provide information about purchasing pedometers or use them in physical education classes. Pedometers measure the number of steps taken each day. Wearing a pedometer will encourage students and teachers to be more physically active.

## Ambassadors of Heart Health: Advocacy Ideas for Teachers and Students

As you work to promote healthy eating habits and increased physical activity in and beyond your classroom, draw on the energy and enthusiasm of some of the best ambassadors — your students! Involve them in educating their peers, family members, friends and local citizens in the hows and whys of eating right and exercising. Try some of these ideas to promote healthier lifestyles and check out the Web sites in the Resources section for more. Be an advocate!

- Advocate within your school and school district for more opportunities for students to be physically active. Encourage students who may not participate in traditional sports to take part in after-school activities that improve their fitness. Ideas might include cycling, skateboarding, inline skating or joining a climbing club.
- Work with the PTA to map out a safe walking trail or course around the school grounds. Challenge grades/schools to walk and create a competition between the grades. Individual classroom teachers may want to include graphing or estimating to help students learn how to apply their math knowledge to life. If supervision is available, students may arrive at school early to walk the course, or stay after school.
- Get active with your students. Encourage other teachers and parents to become involved in physical activity. Show children how much you enjoy physical activity.
- Advocate for recess before lunch. It has been shown that this results in fewer behavioral problems on the playground and in the lunchroom.
- Advocate within your school district for better nutritional choices. Work with the PTA or create a plan on how to phase out foods that don't contain the best balance of nutrition.
- Provide information about local events such as 5Ks or clean-up days in your school announcements or school newsletter. Encourage students and their families to participate in outdoor activities together and in the lunchroom.

## Educational Web Resources for Teachers

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

The **Jump Rope For Heart** Web site provides information for teachers, students and parents about the Jump Rope For Heart program. It's an excellent resource to help make event a success.

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

The **Hoops For Heart** Web site provides event resources for coordinators, as well as information for students and parents about the Hoops For Heart program.

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

The **American Heart Association** Web site offers a wide variety of valuable information including Heart and Stroke Encyclopedia, family health information, science and professional information, and heart-healthy tips.

### [www.americanheart.org/healthierkids](http://www.americanheart.org/healthierkids)

Former President Clinton and the American Heart Association have joined forces to stop the increasing prevalence of childhood obesity in the United States. These tools for schools will inspire all young Americans to develop life-long healthy habits. You can register for e-mail updates.

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

The **Alliance for a Healthier Generation** is a partnership between the American Heart Association and the William J. Clinton Foundation dedicated to fighting childhood obesity. This site contains updates on the programs and partnerships that are being developed to address this issue on all fronts.

### [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. This is an opportunity to gain national recognition for your school and PE teachers by documenting the excellence of your physical education program.

### [www.nhlbi.nih.gov/health/public/heart/obesity/wecan/](http://www.nhlbi.nih.gov/health/public/heart/obesity/wecan/)

**We Can!** (Ways to Enhance Children's Activity & Nutrition) is a national program designed as a one-stop resource for people interested in practical tools to help children 8–13 years stay at a healthy weight. Tips and fun activities focus on three critical behaviors: improved food choices, increased physical activity and reduced screen (TV, computer, etc.) time.

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

**PE Central** is ideal for PE teachers. The site offers physical education curriculum, programs and resources for 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, each comprising a complete, ready-to-use curriculum guide, including Eat a Wide Variety of Foods; Choose a Healthy and Active Lifestyle; Eat Plenty of Fruits, Vegetables, & Grains; and Choose Healthy Snacks.

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

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

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

The USDA/Agricultural Research Service's Children's Nutrition Research Center site with research, news, calculators (including children's BMI calculator), Portion-Distortion Quiz and an interesting article on how parents' attitudes help shape kids' "athletic identity." Also has a poster gallery you can download and print.

**[www.bam.gov/teachers/index.htm](http://www.bam.gov/teachers/index.htm)**

**BAM — Body and Mind** is a children's Web site of the Centers for Disease Control (CDC). 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 and advice for teens.

**[www.healthyfridge.org](http://www.healthyfridge.org)**

A Web site devoted to bringing awareness to the importance of healthy eating habits and developing those healthy habits at an early age. 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 great kid's site is filled with games, activities, contests, kid's panel, recipes and fun links. Helps kids explore the world of nutrition and learn good eating habits.

**[www.healthiergeneration.org/kids](http://www.healthiergeneration.org/kids)**

Check out this new Kid's Site! The movement for a Healthier Generation begins with youth. It's all about being active and having fun!

**[www.mypyramid.gov/kids/index.html](http://www.mypyramid.gov/kids/index.html)**

This site teaches the new Food Pyramid to 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 Web site of the Centers for Disease Control (CDC). Has a cool interactive Create Your Own Fitness Calendar feature for kids to make a personalized calendar of the activities they are planning to do and a recipe finder for healthy snacks. Also neat activity cards that show how different activities affect the body.

**Advocacy Web Resources****[www.americanheart.org/yourethecure](http://www.americanheart.org/yourethecure)**

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

**[www.nchealthyschools.org/docs/shac\\_manual.pdf](http://www.nchealthyschools.org/docs/shac_manual.pdf)**

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

**[www.walkinginfo.org/walkingchecklist.htm](http://www.walkinginfo.org/walkingchecklist.htm)**

**Walkinginfo.org** has a great checklist to help you decide 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.tobacco-freekids.org](http://www.tobacco-freekids.org)**

Offers the Campaign for Tobacco-Free Kids, with reports, statistics, Youth Action program and many ways to help keep our kids tobacco-free.





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Health, Physical Education,  
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1900 Association Drive  
Reston, Virginia 20191  
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American Heart Association   
*Learn and Live.*

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