

KidsHealth.org/classroom

### Teacher's Guide

This guide includes:

- Standards
- Related Links
- Discussion Questions
- Activities for Students
- Reproducible Materials

### **Standards**

This guide correlates with the following National Health Education Standards:

Students will:

- Comprehend concepts related to health promotion and disease prevention to enhance health.
- Analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
- Demonstrate the ability to access valid information and products and services to enhance health.
- Demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
- Demonstrate the ability to use decision-making skills to enhance health.
- Demonstrate the ability to use goal-setting skills to enhance health.
- Demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
- Demonstrate the ability to advocate for personal, family, and community health.

National Health Education Standards:

http://www.cdc.gov/ healthyschools/sher/standards/ index.htm



# K to Grade 2 • Human Body Series Cardiovascular System

Lud-dub, lub-dub. What's that sound? It's the beating of your heart, and it began beating before you were even born! Your heart is a strong muscle, pumping blood through your body 24 hours a day! Your heart and blood vessels are all part of the cardiovascular system. These activities will help your students learn how the heart works and what they can do to keep their hearts healthy.

## **Related KidsHealth Links**

### Articles for Kids:

Your Heart & Circulatory System KidsHealth.org/en/kids/heart.html

What's Blood? KidsHealth.org/en/kids/blood.html

Video: Heart & Circulatory System KidsHealth.org/kid/stay\_healthy/fit/work\_it\_out.html

Word Find: Heart & Circulatory System KidsHealth.org/en/kids/bfs-cswordsearch.html

Why Exercise Is Cool KidsHealth.org/en/kids/work-it-out.html

### **Resources for Teachers:**

Classroom Exercise Breaks for Elementary Students KidsHealth.org/en/parents/elementary-exercises.html

Cardiomyopathy Special Needs Factsheet KidsHealth.org/en/parents/cardiomyopathy-factsheet.html

**Congenital Heart Defects Special Needs Factsheet** *KidsHealth.org/en/parents/heart-defects-factsheet.html* 

Hemophilia Special Needs Factsheet KidsHealth.org/en/parents/hemophilia-factsheet.html

Sickle Cell Disease Special Needs Factsheet KidsHealth.org/en/parents/sickle-cell-factsheet.html

### **Discussion Questions**

Note: The following questions are written in language appropriate for sharing with your students.

- 1. Where is your heart? What does your heart do? What other important body part is close to your heart?
- 2. Sometimes you walk, other times you run. Sometimes you stand still, other times you jump up and down. How does your body react when you run or jump up and down? Does your heart beat the same way all the time?
- 3. Why do people exercise? What does it mean to be active? What kinds of activities do you do that keep your heart healthy?



# K to Grade 2 • Human Body Series Cardiovascular System

## **Activities for Students**

Note: The following activities are written in language appropriate for sharing with your students.

### Your Beating Heart

### **Objectives:**

Students will:

- Feel their pulse, at rest and after exercise
- Count and compare heart rates
- Understand how exercising is one way to keep the heart healthy

### Materials:

- Stopwatch or clock
- "Healthy Heart" handout
- Jump ropes (optional)

### **Class Time:**

20 minutes

### **Activity:**

Every time your heart beats, it pushes oxygen-carrying blood through your body. You can feel your heart beat - it's called finding your pulse. Hold two fingers gently against your wrist or the side of your neck, where you can feel (and maybe even see) a blood vessel. (You have to be very still and quiet. If you have trouble, ask your teacher for help.) Then, as your teacher times 30 seconds, count how many times your heart beats. Double that number (or add it to itself). This is how many times your heart beats in 1 minute at rest. When you move around a lot, blood needs to move oxygen around your body even faster so your heart pumps faster. Sometimes you can even feel your heart pounding in your chest. For 1 minute, run in place or do jumping jacks (or if there's space, jump rope). After a minute, stop, find your pulse, and count how many times your heart beats. Double that number. How does it compare to when you were at rest?

Remember, your heart is a muscle, so it's important to keep it strong! Exercise and being active help keep your heart healthy. Look at the pictures on the "Healthy Heart" handout. Circle all the activities that make your heart beat faster. Draw a box around the activities that usually don't make your heart beat any faster than normal. Finally, draw a heart around your three favorite activities. What things do you like to do that can help keep your heart strong and healthy?

#### **Extensions:**

- 1. Make a list of different activities you can do to get exercise and keep your heart healthy. Take a survey in your class or school. What kinds of exercise, sports, or activities do kids like to do?
- 2. Cut out pictures from magazines of people doing different things. On a sheet of paper, paste the pictures in order from "Very Healthy" to "OK" to "Not So Healthy."





## K to Grade 2 • Human Body Series Cardiovascular System

### **Circulation Circle**

### **Objective:**

Students will:

• Understand how the heart circulates blood in the body and the role of arteries and veins

### Materials:

- Beanbags or small balls for tossing
- Nametags/signs (VEIN, HEART, LUNGS, ARTERY, BODY)

### **Class Time:**

20 minutes

### **Activity:**

Every time your heart beats, it pushes blood through your body. The right side of your heart receives blood from your body (through veins) and sends it to the lungs to get oxygen. The left side of your heart then gets the blood from your lungs and pumps it out to the rest of your body (through arteries). Your blood is like a train, carrying oxygen and nutrients to different parts of your body and then taking waste away. Like train tunnels, your veins and arteries are the paths through which your blood moves. Your heart, lungs, and body are like the train stations - where your blood is coming and going. This whole process of moving blood through your body is called circulation.

Form a group with four other classmates (there should be five of you in all). Each of you has a special job: VEIN, HEART, LUNGS, ARTERY, and BODY. Pretend the beanbag or ball is the blood. The VEIN will send blood to the HEART. The HEART will send blood to the LUNGS for oxygen. The LUNGS will send blood back to the HEART. Then the HEART will send the blood through the ARTERY. The ARTERY will send the blood to the BODY. The BODY will return the blood through the VEIN. Practice tossing the beanbag in this circulation. When you think you're ready, ask your teacher to time you for 1 minute. How many times can your group circulate the beanbag in the correct order in 1 minute?

### **Extension:**

Your heart works really hard. Can your group do what your heart does every day? Try passing around three or four or even five beanbags or balls in the correct order. How many times can you circulate the beanbags in 1 minute? Your heart does this job thousands of times every day!

## **Reproducible Materials**

Handout: Healthy Heart KidsHealth.org/classroom/prekto2/body/systems/cardiovascular\_handout1.pdf

#### Quiz: Cardiovascular System

KidsHealth.org/classroom/prekto2/body/systems/cardiovascular\_quiz.pdf

Quiz Answer Key: Quiz: Cardiovascular System KidsHealth.org/classroom/prekto2/body/systems/cardiovascular\_quiz\_answers.pdf



KidsHealth.org is devoted to providing the latest children's health information. The site, which is widely recommended by educators, libraries, and school associations, has received the "Teachers' Choice Award for the Family" and the prestigious Pirelli Award for "Best Educational Media for Students." KidsHealth comes from the nonprofit Nemours Foundation. Check out www.KidsHealth.org to see the latest additions!





# Human Body Series Cardiovascular System

Name:

Date:

## Healthy Heart

Instructions: Circle all the activities that make your heart beat faster. Draw a box around the activities that usually don't make your heart beat any faster than normal. Finally, draw a heart around your three favorite activities.



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## Human Body Series Cardiovascular System

Name:

Date:

# QUIZ

- 1. Your heart is about the size of:
  - a) A soccer ball
  - b) Your fist
  - c) A marble
  - d) Your big toe
- 2. True or false: Your heart beats 24 hours a day, even when you're asleep.
- 3. Blood vessels are:
  - a) Atriums and ventricles
  - b) Arteries and veins
- 4. What carries oxygen through the bloodstream?
  - a) red blood cells
  - b) white blood cells
  - c) platelets
  - d) plasma
- 5. Which things help keep your heart healthy?
  - a) Eating fruits and vegetables every day
  - b) Smoking
  - c) Exercising and being active every day
  - d) Sitting on the couch and watching TV





# Human Body Series Cardiovascular System

# Quiz Answer Key

- 1. Your heart is about the size of:
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  - c) Exercising and being active every day
  - d) Sitting on the couch and watching TV