



## Barnum Bounce

### Learning Objectives

Students will:

- Identify the heart as a muscle
- Define the cardiovascular system
- Follow directions and participate in an aerobic exercise
- Find and take their pulse

### Lesson Materials

- Ringling Bros.® Barnum's FUNundrum!<sup>SM</sup> The Cardiovascular System Handout, one for each student
- 1 turkey baster and 1 eyedropper
- 1 empty container and 1 small container filled with water

### Standards

Listening: Listens and follows multiple-step instructions

Health: Knows how to maintain and promote personal health

Life Science: Knows that living organisms have distinct structures (i.e., heart) and body systems (i.e., circulatory, cardiovascular, auto-immune, etc.) that serve specific functions in growth and survival

Science: Plans and conducts simple investigations

Physical Education: Understands the benefits associated with participation in physical activity



## Teacher Notes

This lesson teaches children about their hearts and the important role aerobic exercise plays in good health and fitness. With the **Barnum Bounce** activity, you can do more than just teach this information; you can integrate at least one minute of aerobic fun into your daily schedule.

According to the American Heart Association (AHA), developmentally-appropriate aerobic activities for children should consist primarily of moderate to vigorous play and movement. Physical activity that is moderately intense will increase the heart rate and breathing somewhat, while vigorous-intensity movement takes much more effort and will result in a noticeable increase in breathing. The latter can usually be sustained for a maximum of 20-30 minutes.

Examples of moderate to vigorous exercise for children include: bicycle riding, swimming, walking, marching, chasing bubbles, playing tag, dancing to moderate or fast-paced music and jumping rope. In other words, moderate to vigorous-intensity exercise is anything that keeps a child moving continuously—sometimes strenuously and sometimes less so.

The AHA also assures us that we do not need to be concerned with target heart rates in children (unless, of course, a child has health problems). Yes, we want to get their hearts pumping on a daily basis, but we also want to ensure this happens naturally and often as possible.

*Ringling Bros. and Barnum & Bailey®* is proud to offer teachers a *funtastic* and *funbelievable* FREE health, science and FUN physical fitness curriculum called **CircusFit®**. The **Barnum Bounce** lesson is adapted from this comprehensive fitness curriculum. To get the entire multi-media curriculum including free lessons, handouts and music and video resources for your classroom, go to [www.CircusFit.com](http://www.CircusFit.com).



## Activity Directions

1. Ask: Do you like to jump rope? Would you like to bounce on a trampoline? Jump from one trampoline to another?
2. Allow time for your students to talk about the joy of jumping and bouncing around. Then ask if they think jumping and bouncing is just for kids. Discuss this idea.
3. Say: The circus show called *Ringling Bros. and Barnum & Bailey*® Presents *Barnum's FUNundrum!*<sup>SM</sup> features a boggling amount of bouncing. *Ringling Bros.*® athletes have perfected their jumping skills to such a degree that they can jump rope ON A TIGHT WIRE NO BIGGER THAN YOUR THUMB! And they can easily jump from one trampoline to the other and back as part of their daily performance in *Barnum's FUNundrum!* And they can do this with ease, wearing a smile, because they are **CircusFit**®!
4. Say: Bouncing and jumping everyday can be fun and is good for you. Distribute **The Cardiovascular System Handout**, one copy to each student. As a class, fill in the missing words as a way to review, and explain that the cardiovascular, or circulatory system transports oxygen and nutrients throughout our bodies, helps us get rid of waste products and is an important part of our immune system.
5. Ask: Do you know how to find your pulse?
6. Show students how to find pulse points in their neck, wrists and ankles.
  - a. Place the fingertips of your right hand on the underside of your wrist to locate the artery. The strongest beat can be felt on the area of your wrist near your thumb, just below your wrist bone. Explain that you cannot use your thumb to feel your pulse because it has a pulse of its own. Students can also find their pulse in their neck (demonstrate).
  - b. Using a **clock with a second hand**, have students count the number of pulse beats in 6 seconds. Multiply by 10 (or add a zero to the end of the number) to get the number of beats per minute (60 seconds).
7. Explain that the heart is a muscle and, like other muscles in your body, this muscle gets stronger by doing exercise—specifically, **aerobic** exercise. You need a strong heart to pump blood from your heart to your head, arms, legs and all parts of your body while doing a vigorous workout.



## Activity Directions cont.

8. Use the **turkey baster**, **eyedropper** and some **empty and water-filled containers** to demonstrate how the different sizes and strengths of the bulb affect how far liquid can be squirted. Demonstrate to your students how far you can squirt water from a **turkey baster**. Then show them how far you can squirt water from an **eyedropper**. Ask your students which one they would prefer to be their heart. The weak pump (eye-dropper) or the strong pump (turkey baster)?
9. Explain that **aerobic** also means "with air," so aerobic exercise is, by definition a kind of activity that requires oxygen. When you breathe, you take in oxygen and, if you are doing aerobic exercise, you may notice you are breathing faster than normal.
10. Play a lively piece of music and have your students stand up and follow your directions to do the **Barnum Bounce**.

**Jump left! Jump right!**  
**Jump up with all of your might! Jump a little and low.**  
**Raise your arms and jump for the sky.**  
**March in place: left, right, left.**  
**Jump in place and clap your hands over your head.**  
**Turn around in place while marching left, right, left.**  
**Slap your hands on your rump. Jump up and down one, two, three.**
11. After doing the **Barnum Bounce** actions for at least one minute, have students stop and take their pulse again (See step 6).
12. Assign students the homework activity of teaching a parent or someone at home about the heart and cardiovascular system. Have them take home the completed **The Cardiovascular System Handout**. The handout should be signed by the person who reviewed with the student and then the student should return the handout for homework credit.

### Extensions

Have each student create their own version of the **Barnum Bounce** and lead the class. Allow each student to be in charge of leading the class in their version of the **Barnum Bounce** for one week, with the goal of each student to be the **BarnumBounce** leader for at least one week during the school year.



Name: \_\_\_\_\_

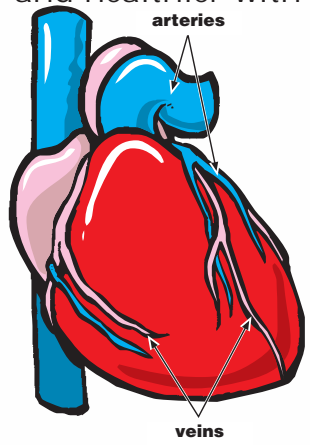
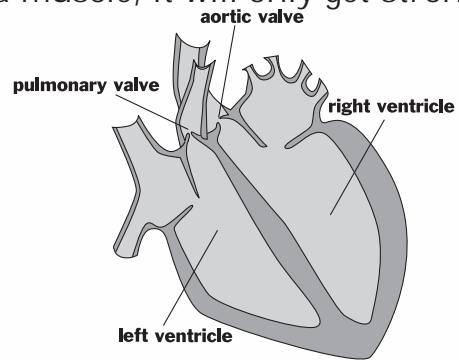
## The Cardiovascular System

Our heart, blood and “vascular system” (blood vessels) make up our **Cardiovascular System**. The cardiovascular, or circulatory, system serves many important functions, such as:

- Using our blood to deliver oxygen and nutrients to all parts of the body.
- Using blood to deliver waste products to our “excretory organs” (kidneys, etc.) so our bodies can get rid of them.
- Helping our immune system fight against infection.

### The “Star” of Your Cardiovascular Team!

The different parts of our cardiovascular system work as a great team. At the center of the system is our **heart**, the amazing muscular pump that controls it all. The heart not only helps to nourish our body and carry waste products out of our systems, it also speeds up to give us the energy and oxygen we need during exercise. For that reason, it’s very important to take care of the heart through proper diet and lots of exercise. Because our heart is like a muscle, it will only get stronger and healthier with more exercise.



The heart is really two pumps, side by side.

The left side (left ventricle):

It pumps blood all around the body to deliver oxygen and nutrients.

The right side (right ventricle): When the blood circulates back to the heart it gets sent out of the right pump to pick up fresh oxygen, and return to the left again.

The aortic and pulmonary valves: The heart has bendy flaps inside called valves. These make sure the blood flows in the proper direction. As these flaps open and snap shut, they make the “lub-dub” sound of a heartbeat.