



# LETS TALK ABOUT THE HEART

## DID YOU KNOW?

Did you know that an adult heart is about the size of a softball, but an infant's heart is only about the size of a golf ball? The heart is just one of our lifesaving organs needed for our bodies to function; can you believe it beats an average of 100,000 times each day?

## MATERIALS:

1. An empty paper towel tube.
2. An area to perform exercise activities.
3. A timer or a stopwatch.

## BACKGROUND INFORMATION:

The heart is not only an organ; it is also a strong muscle that pumps blood through the body. The heart is located between the lungs but is slightly closer to the left lung than the right lung. The heart is protected by the sternum, which is also known as the breastbone. There are four areas – or chambers – in the heart; the upper chambers are known as the atriums, and the lower chambers are the ventricles.

As you might recall, the main job of the lungs is to take oxygen in from outside the body, which starts the breathing process. The breathing process has two phases: inhalation, or the breathing in of air, and exhalation, when you breathe air out. During inhalation, oxygen enters the lungs and the left side of the heart, and the heart pumps blood and oxygen to the entire body, which keeps us healthy. However, once the body uses the oxygen, carbon dioxide develops, which is harmful if it stays in our body. To get rid of the carbon dioxide, it flows back to the right side of the heart, which pushes it into the lungs and is exhaled. Then, the entire process repeats.

There are certain infections, diseases and even birth defects that can cause the heart to no longer function properly. One primary reason a person could need a heart transplant is because the left ventricle becomes enlarged and weakened, which makes it unable to pump blood correctly. We cannot always determine why the heart stops functioning properly, but one thing we can do to help protect it is to exercise, not smoke and try to eat fewer unhealthy fats.

Many people love food with unhealthy fats, such as pizza, cheeseburgers, desserts and donuts. It is perfectly fine to eat these foods in moderation because our bodies need certain types of fat to give us energy and to help our brains function. However, it is also highly important to exercise and eat a variety of foods that are lower in fat, such as fruits and vegetables, to keep the heart healthy.



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## ACTIVITY:

1. Find an empty paper towel tube to create a stethoscope and go to a quiet space with another person.
2. Place one end of the tube to your heart and instruct another person to place his or her ear on the other end.
3. Ask them what they hear. Do they hear a thumping sound?
4. Switch roles and see if you can hear the thumping sound of a heartbeat.
5. Try doing 10 jumping jacks, then listen again. Did the heartbeat speed up?

## CHALLENGE:

1. Place your palm up, then put two fingers on your wrist. While slightly pushing down, count the number of times you feel a light thumping — your pulse — for 30 seconds. The light thumping is your heart pushing blood through the body.
2. Next, do a light activity, such as walking back and forth, for a few minutes. Check your pulse again for 30 seconds. Did the number of times you felt a light thumping increase from the first time?
3. Finally, do a more strenuous activity, such as running or jumping rope, for a few minutes.
4. Check your pulse again for 30 seconds. Did the number increase even more?

When you exercise, your body needs more blood and oxygen, so the heart will speed up and pump more. Exercise is important for all muscles, including the heart. It allows for better blood flow in the small blood vessels around your heart.