

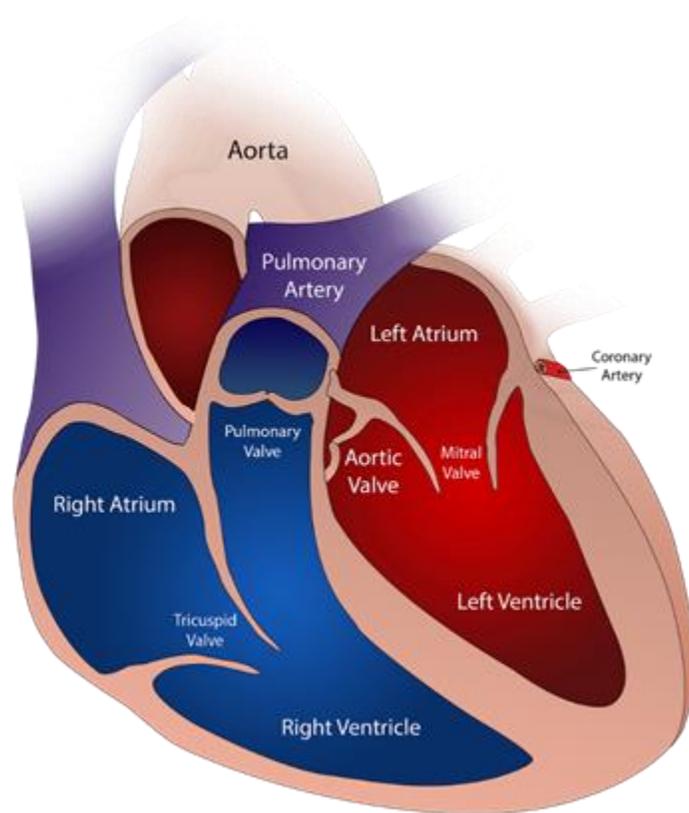
## LISTEN TO YOUR HEART



When you go to your doctor, he or she listens to your heart with a **stethoscope**, which is a medical instrument that allows you to hear the sounds produced by your heart and lungs. Your doctor can hear your **heart rate** (number of heartbeats per minute) and **heart rhythm** (the regularity of heartbeats) and can check the condition of your **heart valves** using a stethoscope.

Your heart has four chambers or compartments: the **right** and **left atrium**, and the **right** and **left ventricle**. It also has four **valves**, or flaps, that prevent the blood from flowing in the wrong direction: the **pulmonary valve**, **tricuspid valve**, **mitral valve**, and **aortic valve**.

The sound of the heart beating is often described as a “lub dub” noise. This sound is actually the sound of your heart valves closing as the heart pumps blood!



**A look inside the heart**





**A stethoscope like the one used by doctors, nurses, and other medical professionals**

You can make your own “stethoscope” to hear the heartbeat of your family, and they can listen to your heartbeat too!

**ACTIVITY #1: Listen to your heart with a homemade stethoscope**

Materials:

- Plastic funnel
- Paper tube from a roll of paper towels
- Duct tape or some other strong tape



1. Place the small end of the funnel in the cardboard tube.
2. Use duct tape or other strong tape to hold them together.
3. This “stethoscope” is ready to use! Ask a volunteer if you can listen to their heart.
4. Place the funnel with the flat end against the left side of their chest. Then, place your ear against the other end of the tube and listen. Are you able to hear the “lub dub” sound of the heart beating?

♥ Listen and count. How many times does the heart beat in 60 seconds? This is the **heart rate** or **number of beats/minute**.



♥ Is the heart rhythm steady and even? The heart rhythm is controlled by your body's very own electrical system! An irregular heartbeat is called an **arrythmia**.

♥ The heart pumps between 75 -100 gallons of blood through the body every hour! That is about 1 – 1 ½ gallons per minute! The body does not hold 100 gallons of blood all at once. Blood is recirculated and replaced constantly. The amount of blood in a person's body varies with their age, sex, weight, and even where they live. An average 80 lb. child has about .7 gallons of blood in their body, an average adult 1.2 to 1.5 gallons.

## **ACTIVITY #2: Discover how hard your heart works**

### Materials:

- Two large buckets or dishpans
- 1 gallon of water. To be more accurate, use 1 ⅓ gallons
- ¼ cup measuring cup
- Timer or stopwatch

1. Fill one of the containers with 1 - 1 ⅓ gallons of water.
2. Place the other empty container right next to it.
3. Set a timer for 1 minute
4. Try to move all the water from one dishpan or bucket into the other in one minute using a ¼ cup measuring cup.

It takes our heart 72 beats per minute to pump that amount of blood through our bodies in one minute! Could you do it?

Wow! Isn't your heart a strong and amazing muscle?

♥ **Arteries** are blood vessels that carry blood away from the heart, **veins** are blood vessels that carry blood back to the heart.

♥ To keep your heart healthy, you should exercise at least 30 minutes every day!

## **ADDITIONAL RESOURCES:**

Books available from the Washoe County Library System:

[\*The Circulatory System\*](#) by Susan Heinrichs Gray

[\*The Circulatory System\*](#) by Kristin Petrie

[\*The Heart: Our Circulatory System\*](#) by Seymour Simon

[\*How Does Your Heart Work?\*](#) by Don L. Curry, Jayne L. Waddell, and Jeanne Clidas



[Thump-Thump: Learning about Your Heart](#) by Pamela Hill Nettleton and Becky Shipe

[What Body Part is That?](#) by Andy Griffiths and Terry Denton

### Videos

American Heart Association: Kids Heart Challenge Heart Facts

[https://www.youtube.com/watch?v=2PFWpd\\_pxm8](https://www.youtube.com/watch?v=2PFWpd_pxm8)

Nemours KidsHealth, How Your Heart Works

[https://www.youtube.com/watch?v=eVG45\\_iF9U&ab\\_channel=NemoursKidsHealth](https://www.youtube.com/watch?v=eVG45_iF9U&ab_channel=NemoursKidsHealth)

### Websites

Canadian Broadcasting Corporation, CBC Kids, How does your heart work?

<https://www.cbc.ca/kidscbc2/the-feed/how-does-your-heart-work>

Dorling Kindersley (DK), DKfindout!, Heart and Blood

<https://www.dkfindout.com/uk/human-body/heart-and-blood/>

National Geographic, National Geographic Kids, The Truth About Your Heart

<https://kids.nationalgeographic.com/explore/science/the-truth-about-your-heart/>

