



Curiosity Guide #505

Circulatory System

Accompanies Curious Crew, Season 5, Episode 5 (#505)

Finding Your Pulse

Investigation #7

Description

Did you know you can easily feel your heart beating?

Materials

- A friend
- Timer with a second hand or a digital timer that measures seconds

Procedure

- 1) Have your friend follow the procedures along with you, so the two of you can compare and talk about what you notice.
- 2) Place your index and third finger on the outside of your wrist, below the thumb of your left hand.
- 3) Apply gentle pressure until you can feel the pulse.
- 4) Set the timer to 15 seconds. When you are sure you have located your pulse, start the timer and count how many pulses you feel in 15 seconds.
- 5) Multiply that number by 4 to get your heart rate per minute.
- 6) Try finding your pulse in other places:
 - a. on the side of your neck
 - b. under your jaw
 - c. behind your knee
 - d. the inside of your elbow
 - e. the sides of your temple
 - f. under the ball of your foot
- 7) Which is easiest to detect?

My Results

Explanation

Pressing on each of these locations allows you to feel the pulse or beat of your heart. The pulse is the result of the waves of blood that are forced into circulation from the pumping heart and are starting and stopping in the arteries. You can most easily detect a pulse in your wrist or neck because the arteries are closer to the surface of the skin in those spots.

Investigate further. The heart is a powerful muscle that's about the size of your fist. An adult's heart is the size of two fists.

It's a good thing the heart is so strong, because the heart has to push the blood through a LOT of blood vessels! If we could stretch out all the arteries, veins, and capillaries end to end, they would extend over 60,000 miles, long enough to circle the Earth more than two times! The collection of blood vessels looks a lot like a tree. The aorta, which is the main artery coming from the heart, resembles the trunk. The aorta connects to smaller and smaller arteries and all the way down to the network of tiny capillaries, just like the trunk of the tree connects to smaller and smaller branches, all the way down to the twigs.

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