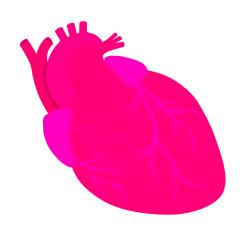
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Pulse Pointer



Activity Description

Your heart does a big job! The circulatory system— which includes the heart and blood vessels, arteries, veins, and capillaries— supplies oxygen and nutrients to our bodies and helps carry waste and carbon dioxide out of the body. The heart pumps blood throughout the body.

Your heart rate, or pulse, is the number of times your heart beats per minute. Normal heart rate varies from person to person, but the average is about 60 to 100 bpm for adults, while children's hearts tend to beat faster.

How can you measure your bpm? You can feel your pulse by gently pressing your

Materials

Uncooked Spaghetti Playdough or Putty

Preparation and Safety

Be gentle when searching for your pulse, especially around the neck area.

fingers against parts of your body where your arteries pass close to the surface, like the sides of your neck or your wrist. Count the number of small thumps you feel in 60 seconds and you have your bpm!

We can also use different devices to measure our heart rate. You could use a stethoscope, a pulse oximeter, or an electrocardiogram. You can also make a device for detecting your pulse from very simple materials.

Procedure

- 1. Take enough playdough or putty to roll into a ball and then flatten into a 1-inch disc.
- 2. Pierce the dough with a long piece of spaghetti.



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Procedure (continued)

- 3. Find your radial pulse—hold out your arm with your palm facing up and feel along the inside of your wrist for the thump of your heartbeat.
- 4. Place the dough disc right on your radial pulse and watch it wiggle every time your heart pumps blood through your body!

Tips

- · The movement is slight, try to be still and watch the very tip of the spaghetti.
- Rest your arm against a srface and make a fist. Flex your hand back so that the underside of your wrist is angled up toward your pulse detector.

Extensions or Adaptations

- Try placing the pulse detector against your carotid pulse, found on the sides of your neck. You may need to lay down in order to keep it balanced!
- · Find the bpm for each member of your family and compare.
- · What sorts of things can affect your bpm, making your heart-beat either faster or slower? Can you do any of those things now and compare your bpm before and after?

