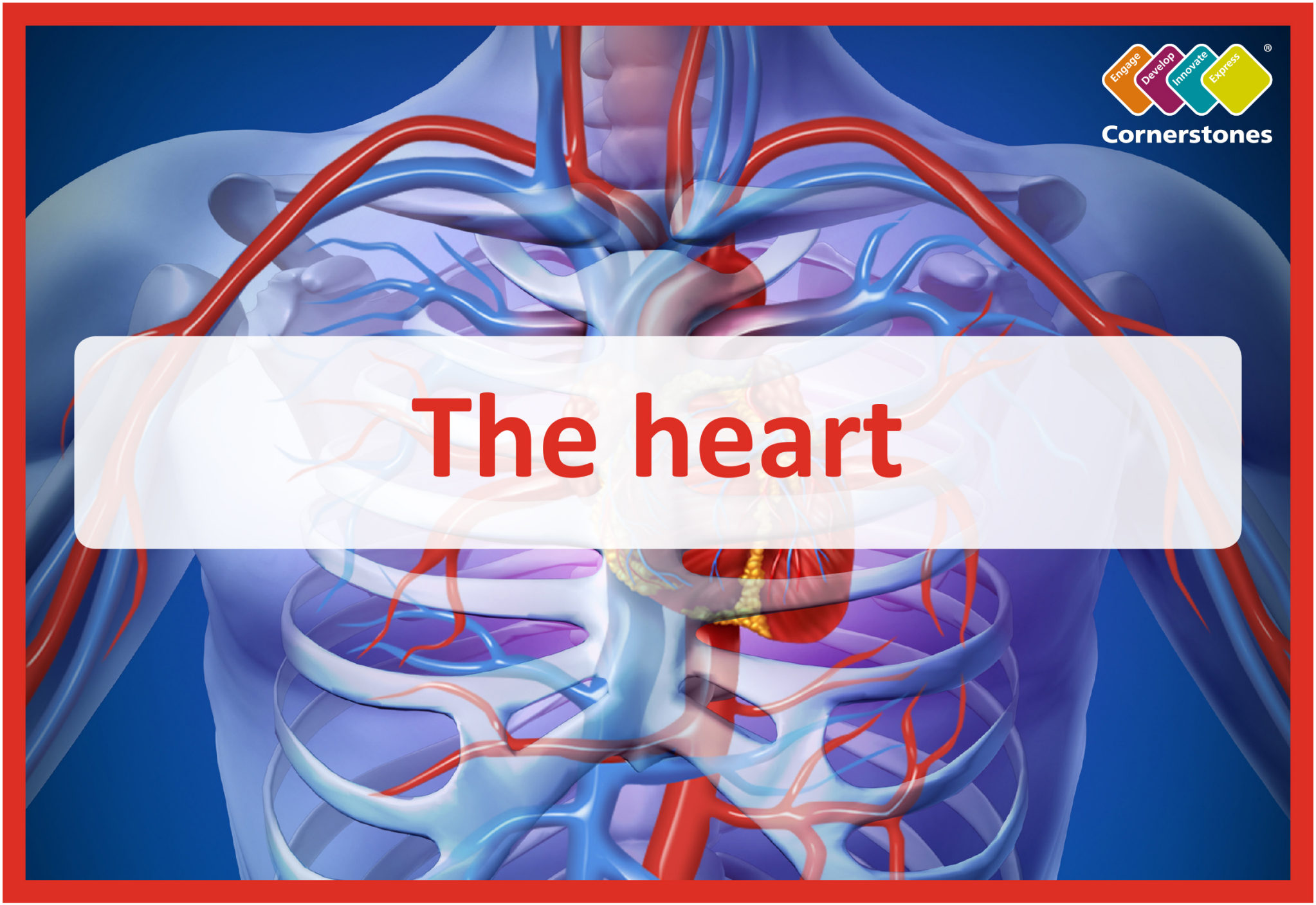
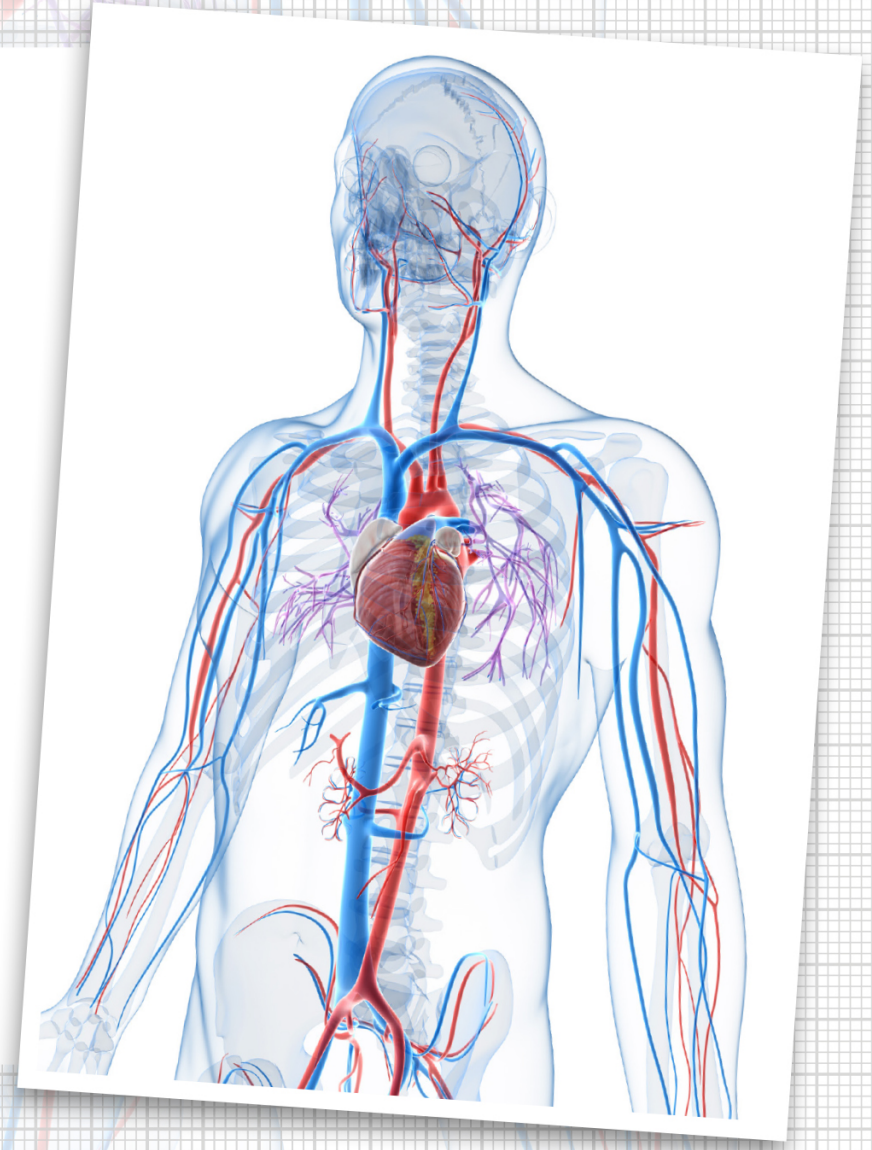


What is the heart?

The heart is a muscle and the most important organ in your body. Sitting within your chest cavity between your lungs, its function is to pump blood through the blood vessels of the **circulatory system**. Without it you would be... well, let's just say it was nice knowing you!



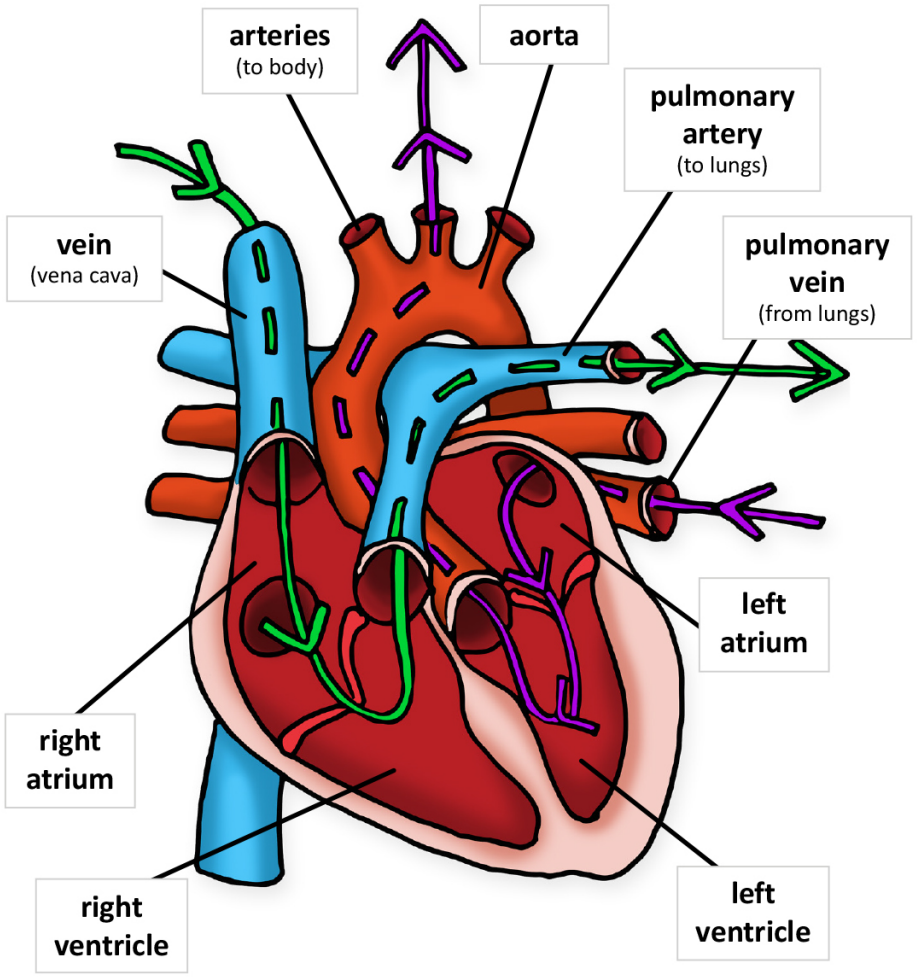
Did you know?

Your heart pumps blood through 60,000 miles of blood vessels! That's the same as driving around the Earth's circumference nearly two and a half times!

How does the heart work?

The heart has four chambers: two upper chambers (the atriums) and two lower chambers (the ventricles).

Blood arrives at the heart from your body. It is deoxygenated and enters the right atrium of your heart through a large **vein** called the vena cava. As the heart contracts, it pushes your blood into the right ventricle, before pushing it out of the heart through the pulmonary **artery**, to the lungs.

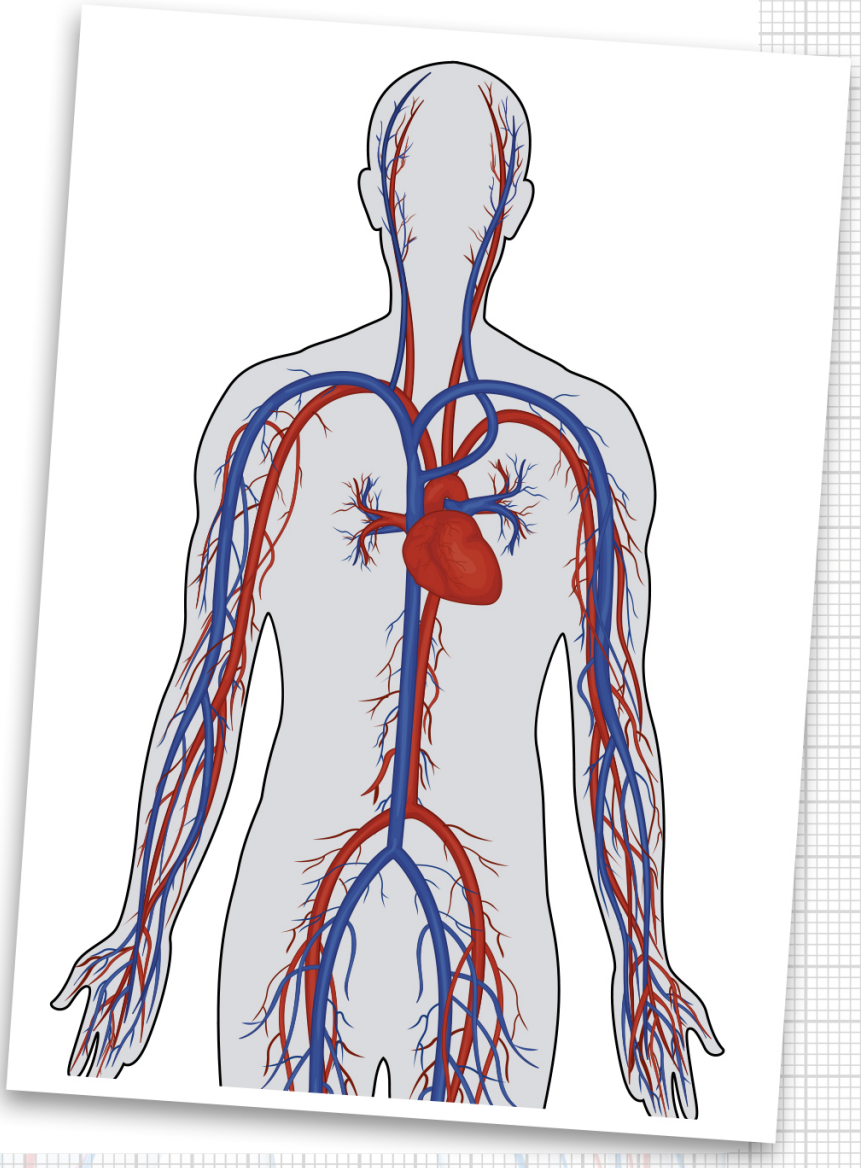


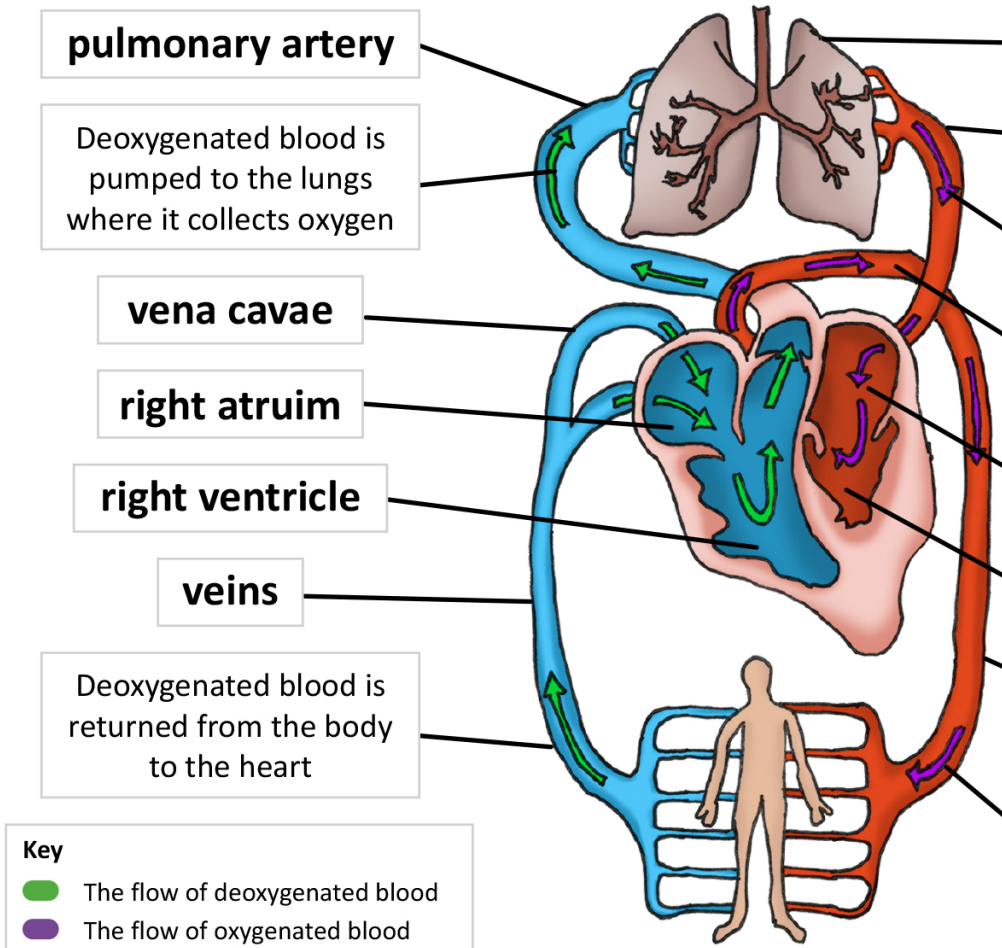
Key

- The flow of deoxygenated blood
- The flow of oxygenated blood

In the lungs, the blood 'collects' oxygen from the air you have breathed in. This oxygenated blood travels back to the heart this time entering the left atrium through the pulmonary vein. As your heart contracts again it moves this oxygenated blood into the left ventricle before sending it through an artery called the aorta to all parts of the body. This blood enters tiny blood vessels called capillaries, delivering oxygen to your organs and muscles, giving them the 'fuel' to work properly.

After delivering the oxygen around the body, the blood is now deoxygenated and travels back to your heart through the veins, ready for the process to start again.





The blood does not just carry oxygen; it carries nutrients to where they are needed and collects waste products for disposal.

What is a pulse?

As the heart beats, it makes a characteristic 'lub-dub' sound, which is created by the contraction and relaxation of the heart. This can also be felt as a pulse when you press an artery against a bone. The faster your heartbeat or pulse, the harder your heart is working to pump blood around your body.

Your heartbeat can change depending on what you are doing (for example exercising) or how you are feeling.

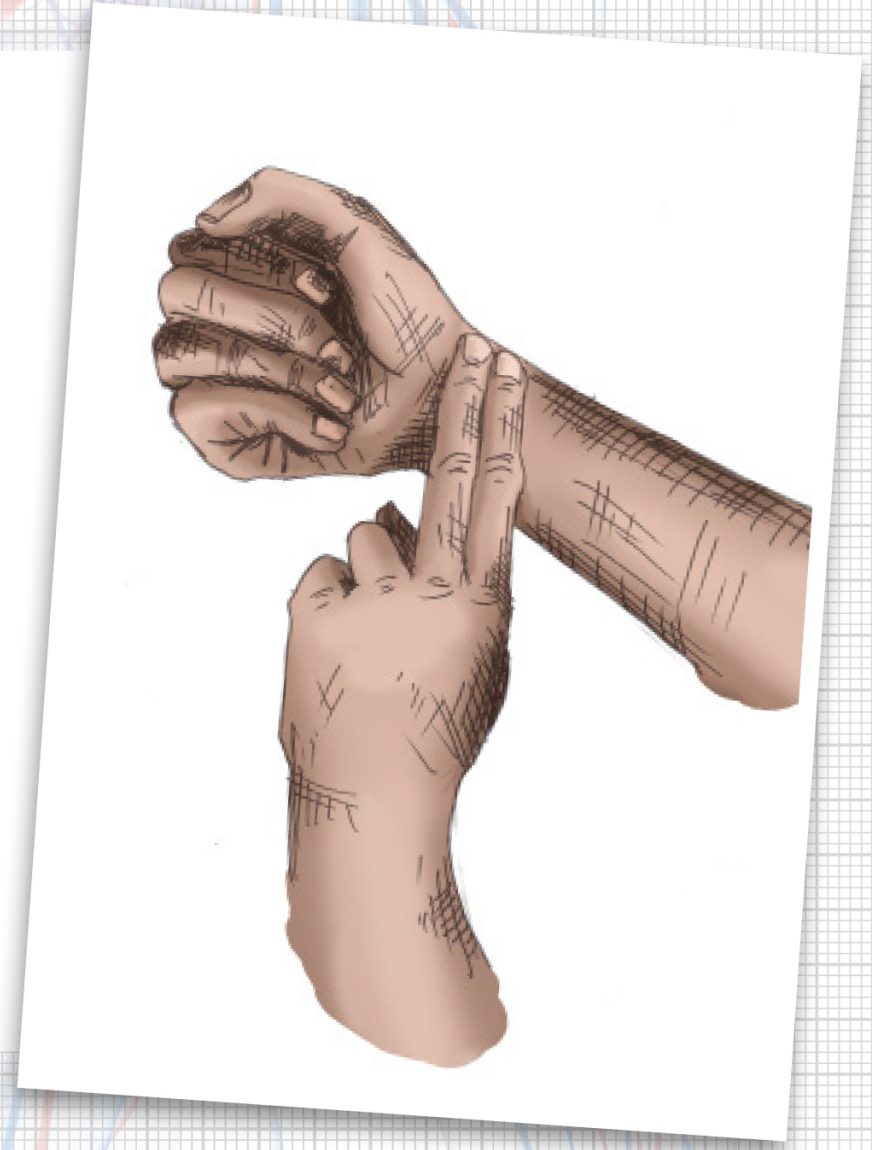
Did you know?

Your heart is the same size as your fist.

Heart rate

The average person's resting heart rate is 80 beats per minute (bpm). An athlete has a much lower resting pulse rate because they exercise regularly, which means their heart is used to being put through its paces. As a result, their heart grows really strong, which means it takes less effort to pump blood around their body.

The most common place to feel your pulse is on your wrist or neck. Have a go. Place your forefinger and middle finger on your wrist or neck and count how many times your heart beats in one minute.



Keeping your heart healthy

The heart works really hard and is constantly pumping blood around the body, so it is important to look after it! Eating plenty of fruit and vegetables, and being careful not to eat too much salt or saturated fat can help towards keeping your heart healthy.

Exercising regularly and taking part in the games and sports you enjoy, are also key to a happy heart.

Did you know?

Your heart beats approximately 100,000 times per day! That's about 3,600,000 times a year!

Love your heart!

So, next time your heart races, skips a beat or aches, have a heart and think about all the work it is having to do day after day, hour after hour, minute after minute, second after second.

Glossary

Artery	A blood vessel that typically transports blood containing oxygen away from the heart to the rest of the body.
Circulatory system	The system responsible for transporting blood, oxygen and nutrients around the body and taking waste materials away from the body's tissues.
Vein	Blood vessels that typically transport deoxygenated blood from capillaries in the body's organs and tissues back to the heart.