

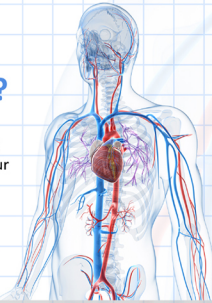
THE HEART

The heart of the matter

You often hear people talking about hearts and how to look after them, both physically and emotionally. The heart is a vital organ but how much do you actually know about how it works and what it does? Let's get to the heart of the matter and find out more...

1 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!

3 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.

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.

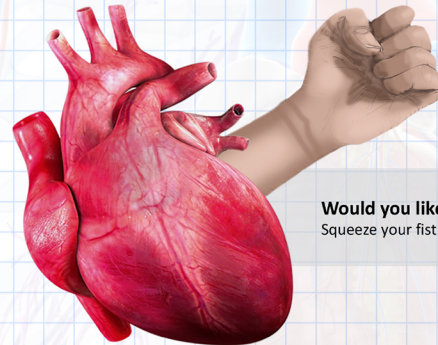


Did you know?

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

Would you like to know how big your heart is?

Squeeze your fist. That's how big it is.



4 Keeping your heart happy

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



2 How does the heart work?

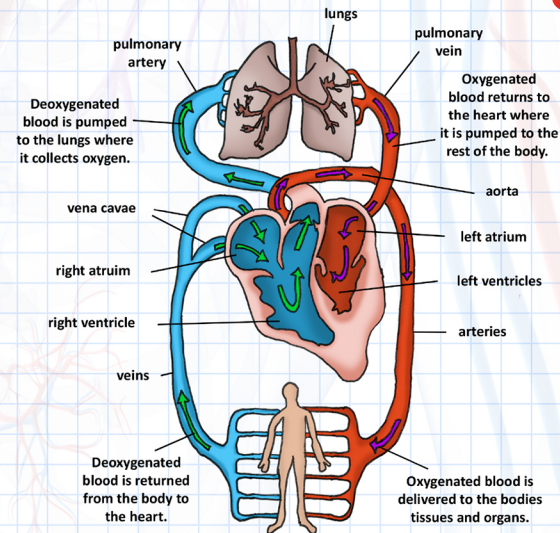
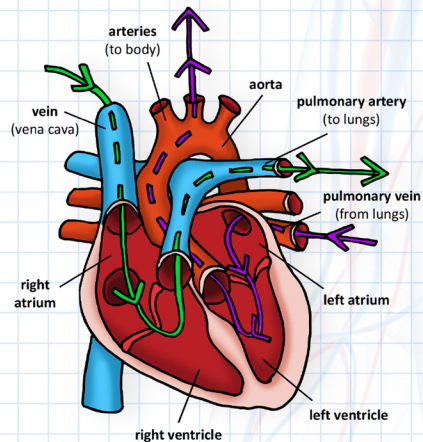
The heart has four chambers: two upper chambers (the atria) and two lower chambers (the ventricles).

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.

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.



5 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.