

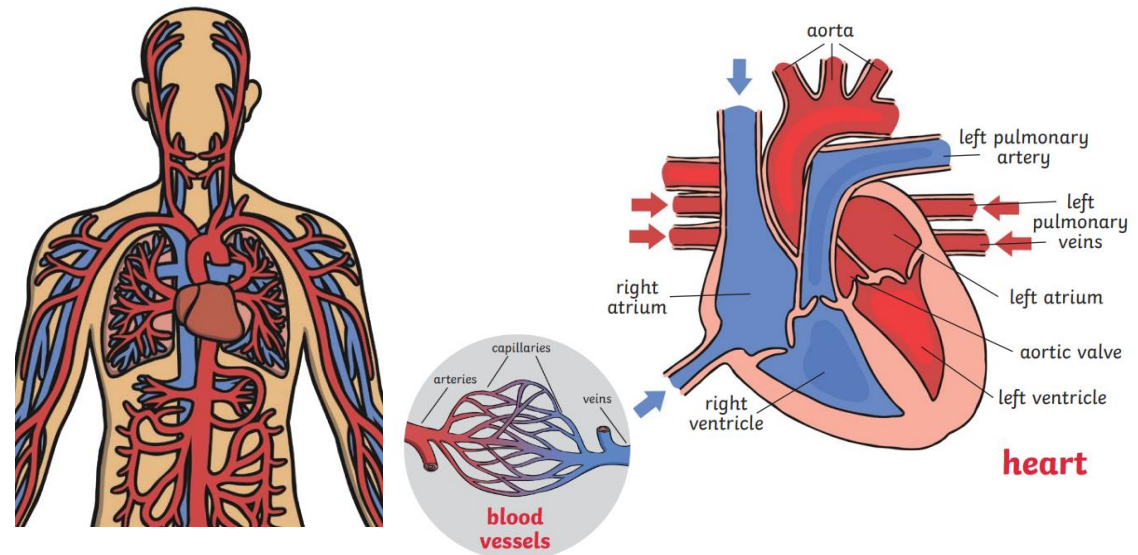
# Knowledge Mat- Science – Y6 The circulatory system

Year 4	Year 6	Secondary school
<ul style="list-style-type: none"> <li>Describe the simple functions of the basic parts of the digestive system in humans.</li> </ul>	<ul style="list-style-type: none"> <li>Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.</li> <li>Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.</li> <li>Describe the ways in which nutrients and water are transported within animals, including humans.</li> </ul>	<ul style="list-style-type: none"> <li>The structure and functions of the gas exchange system in humans, including adaptations to function.</li> <li>The mechanism of breathing to move air in and out of the lungs.</li> <li>The impact of exercise, asthma and smoking on the human gas exchange system.</li> </ul>

Subject Specific Vocabulary	
<b>blood vessels</b>	Blood vessels are a series of tubes inside your body. They move blood to and from your heart.
<b>drugs</b>	A drug is a chemical that is not food and that affects your body. Some drugs are given to people by doctors to make them healthy.
<b>atria</b>	The atria are the two upper most chambers of the heart. Blood is pushed from the atria to the ventricles.
<b>Cardiovascular</b>	The blood circulatory system (cardiovascular system) delivers nutrients and oxygen to all cells in the body.
<b>ultrasound</b>	An ultrasound machine uses sound waves to take pictures of the inside of the body.
<b>cardiologists</b>	A cardiologist is a doctor with special training and skill in finding, treating and preventing diseases of the heart and blood vessels.
<b>capillaries</b>	Capillaries are very thin blood vessels. They bring nutrients and oxygen to tissues and remove waste products.
<b>pulse</b>	Your heart has to push so much blood through your body that you can feel a little thump in your arteries each time the heart beats.
<b>ventricles</b>	The ventricles are the two lower chambers in the heart.

## Knowledge

- I know the name of the main parts of the human circulatory system.**
- I know the function of the heart, blood vessels and blood.**
- I know the impact of diet, exercise, drugs and lifestyle on health.**
- I know the ways in which nutrients and water are transported in animals, including humans.**



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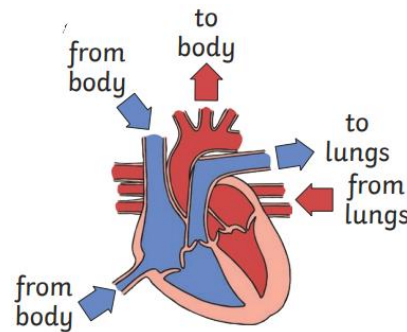
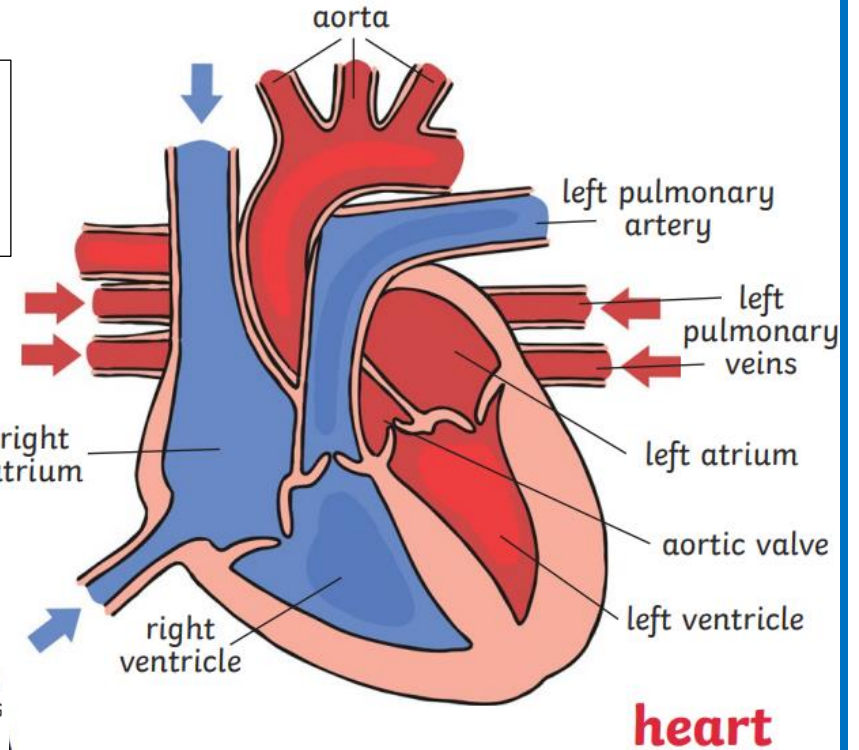
Regular exercise:

- strengthens muscles including the heart muscle;
- improves circulation;
- increases the amount of oxygen around the body;
- releases brain chemicals which help you feel calm and relaxed;
- helps you sleep more easily;
- strengthens bones.

It can even help to stop us from getting ill.



The heart pumps blood to the lungs to get oxygen. It then pumps this oxygenated blood around the body.



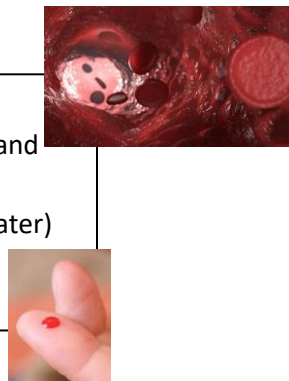
**Drugs, alcohol** and smoking have negative effects on the body.

A healthy diet involves eating the right types of **nutrients** in the right amounts.

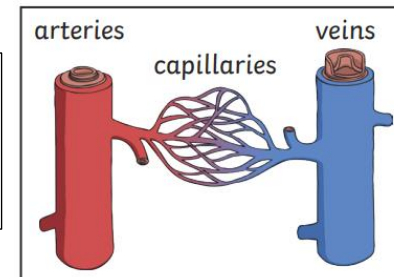


Blood transports:

- gases (mostly oxygen and carbon dioxide)
- nutrients (including water)
- waste products around the body



Arteries carry oxygenated blood away from the heart.



Veins carry deoxygenated blood toward the heart.