



Structure of the cardiovascular system

If you clench your hand into a fist, this is approximately the same size as your heart.

It is located in the middle of the chest and slightly towards the left.

The heart is a large muscular pump and is divided into two halves - the right-hand side and the left-hand side.

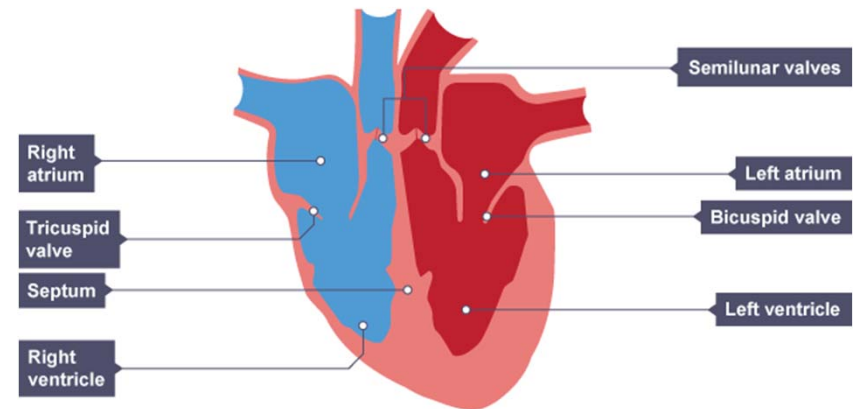
The **right-hand side** of the heart is responsible for pumping deoxygenated blood to the lungs.

The **left-hand side** pumps oxygenated blood around the body. Each side of the heart consists of an atrium and a ventricle which are two connected chambers.

The **atria** (plural of atrium) are where the blood collects when it enters the heart.

The **ventricles** pump the blood out of the heart to the lungs or around the body.

The **septum** separates the right-hand and left-hand side of the heart.



The **tricuspid valve** is located between the right atrium and right ventricle and opens due to a build-up of pressure in the right atrium.

The **bicuspid valve** is located between the left atrium and left ventricle and likewise opens due to a build-up of pressure, this time in the left atrium.

The **semilunar valves** stop the back flow of blood into the heart. There is a semilunar valve where the aorta leaves the left ventricle and another where the pulmonary artery leaves the right ventricle.



Blood vessels leading into and out of the heart

There are four main blood vessels that take blood into and out of the heart.

The aorta is the largest artery in the body. It carries oxygenated blood away from the left ventricle to the body.

The vena cava is the largest vein in the body. It carries deoxygenated blood from the body back to the heart.

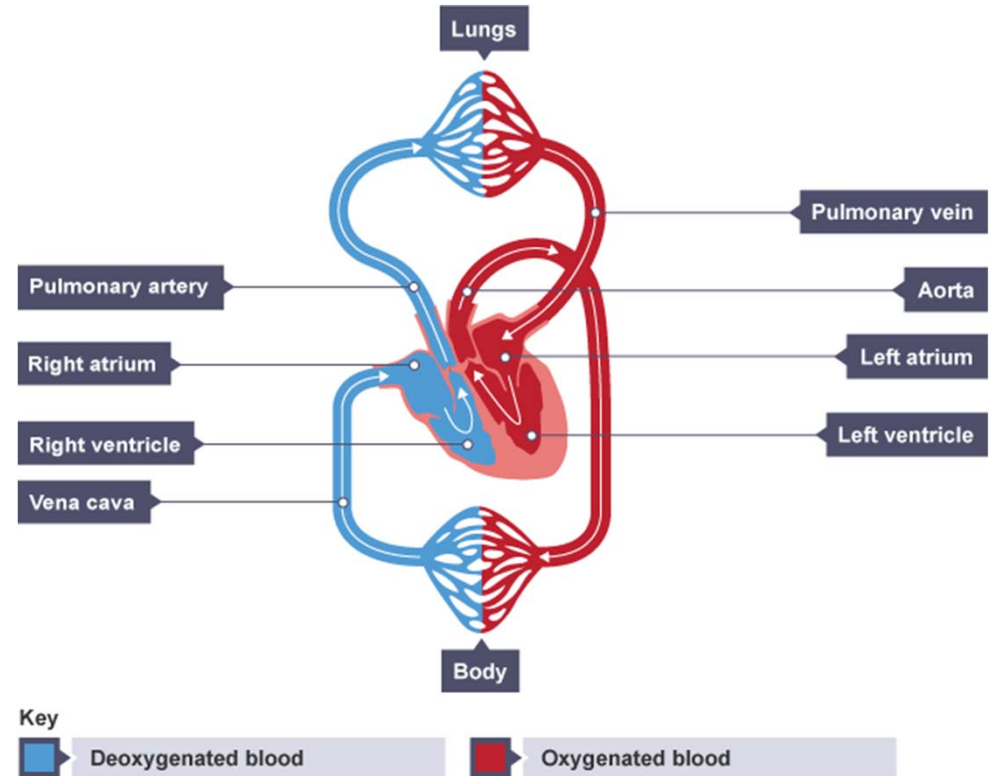
The pulmonary artery carries **deoxygenated blood** away from the right ventricle to the lungs.

The pulmonary vein returns **oxygenated blood** from the lungs to the heart.

Arteries carry *oxygenated* blood away from the heart (except for the pulmonary artery which carries *deoxygenated* blood away from the right ventricle to the lungs).

The main artery is the aorta.

The main vein is the vena cava.



ASSESSMENT

For your end of unit (half term) assessment, you will be required to complete the following task:

- Written knowledge test on the Cardiovascular System (20 multiple choice questions).