

The Human Circulatory System

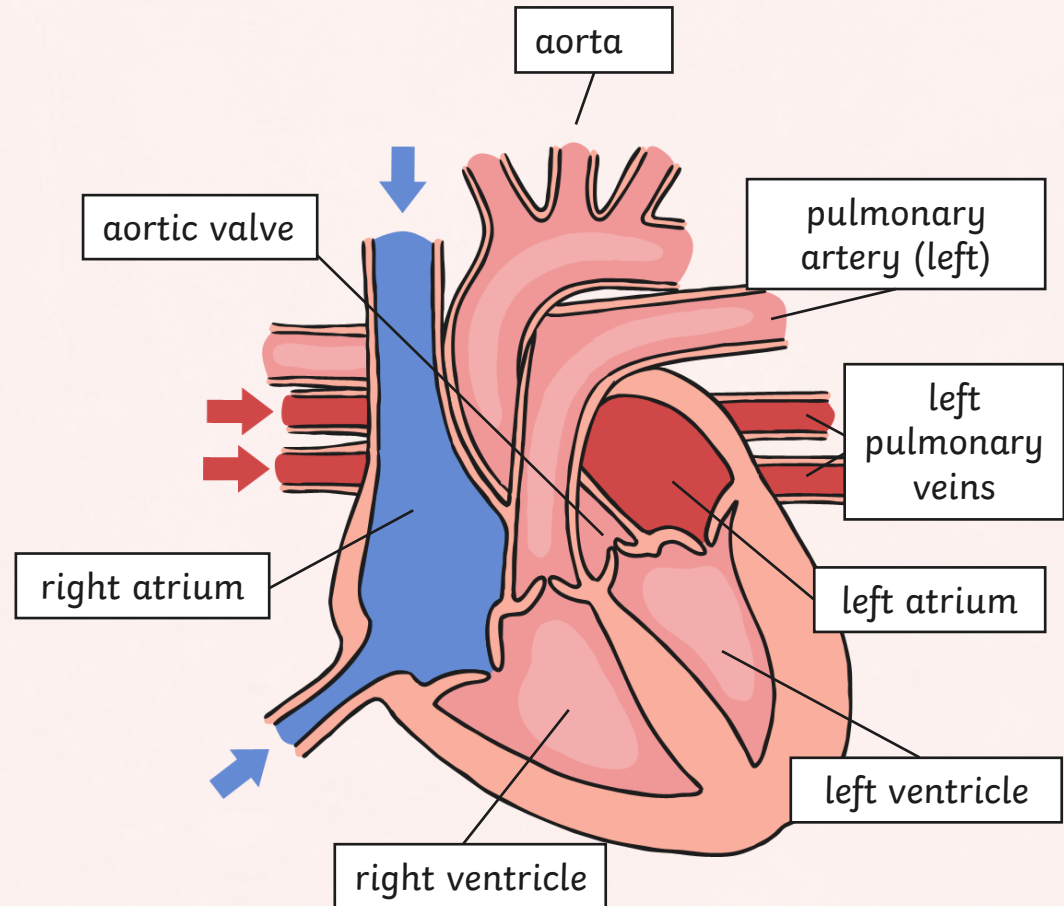
The background of the slide is a textured, light red color. Scattered across this background are several stylized red blood cells. These cells are depicted as red, biconcave discs with a darker red center and a lighter red outer ring, giving them a three-dimensional appearance. They are arranged in a way that some are in the foreground, overlapping others in the background.

The Function of the Heart

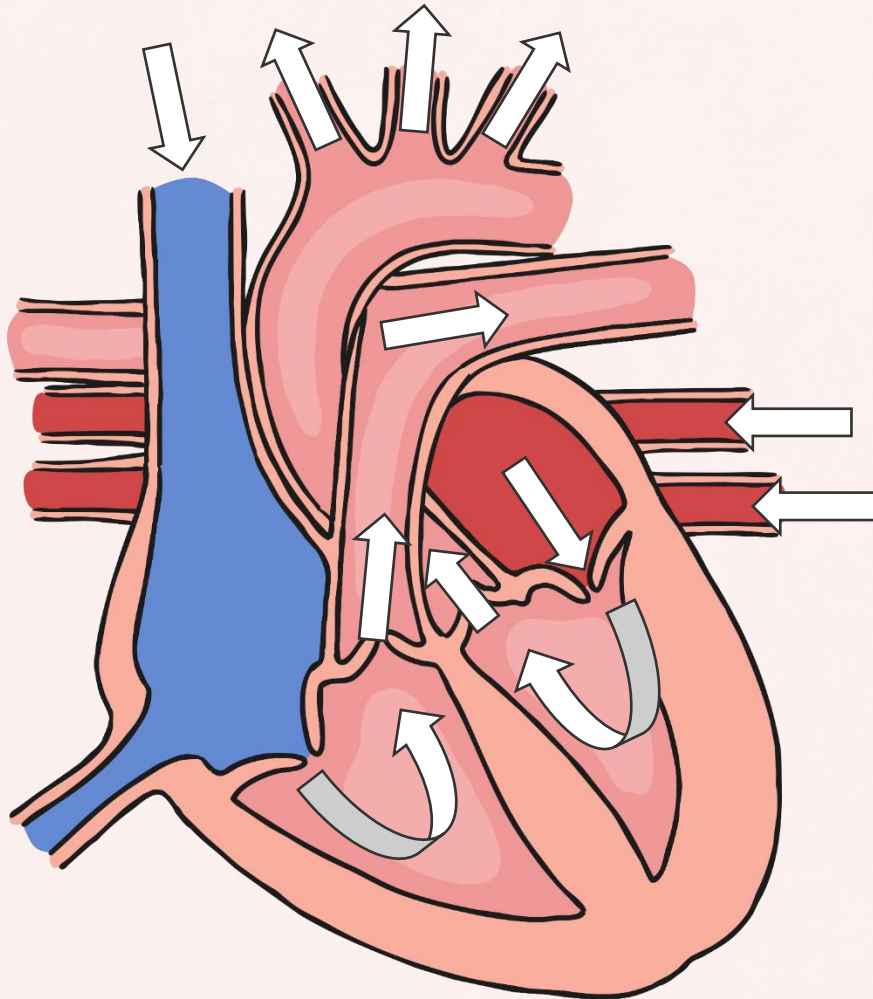
The heart is a powerful muscle that is situated between your lungs, protected by the ribcage.

The heart pumps blood to the lungs to get oxygen.

The heart pumps the oxygenated blood to the rest of the body.



How the Heart Works



Click to go through each stage of the process.

right atrium

right ventricle

pulmonic valve

pulmonary artery (left)

left pulmonary veins

left atrium

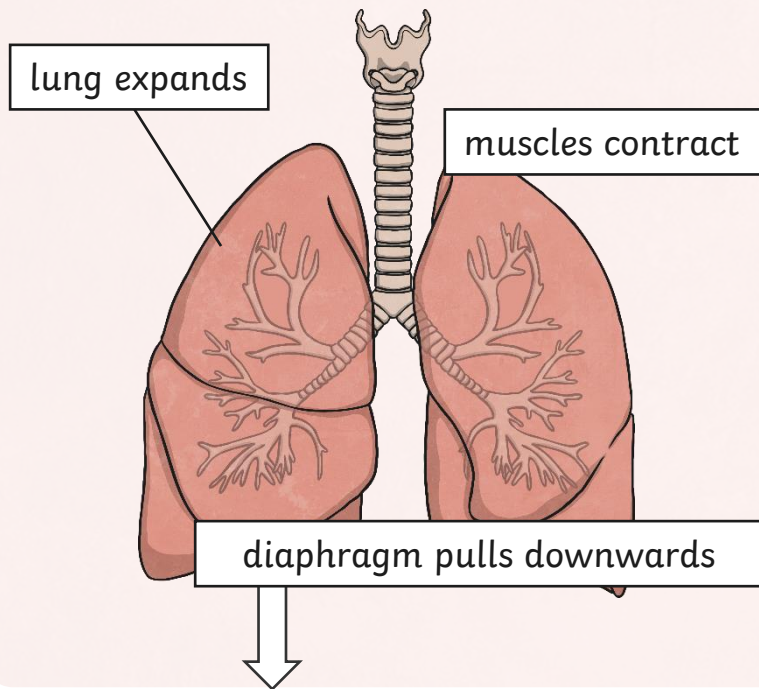
left ventricle

aortic valve

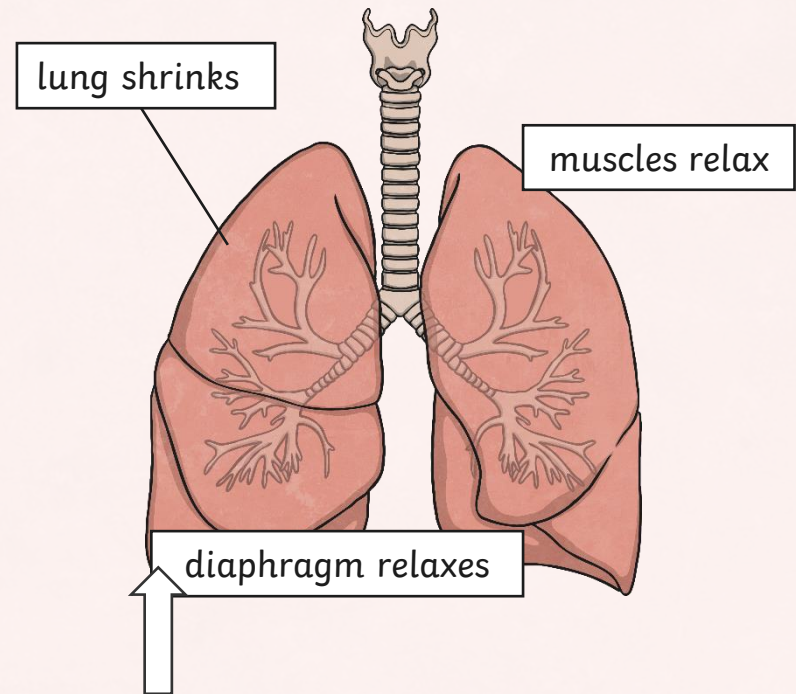
aorta

The Function of the Lungs

When we breathe in (inhale), the intercostal muscles contract and the diaphragm pulls down, making the chest expand. This causes air to be sucked into the lungs.

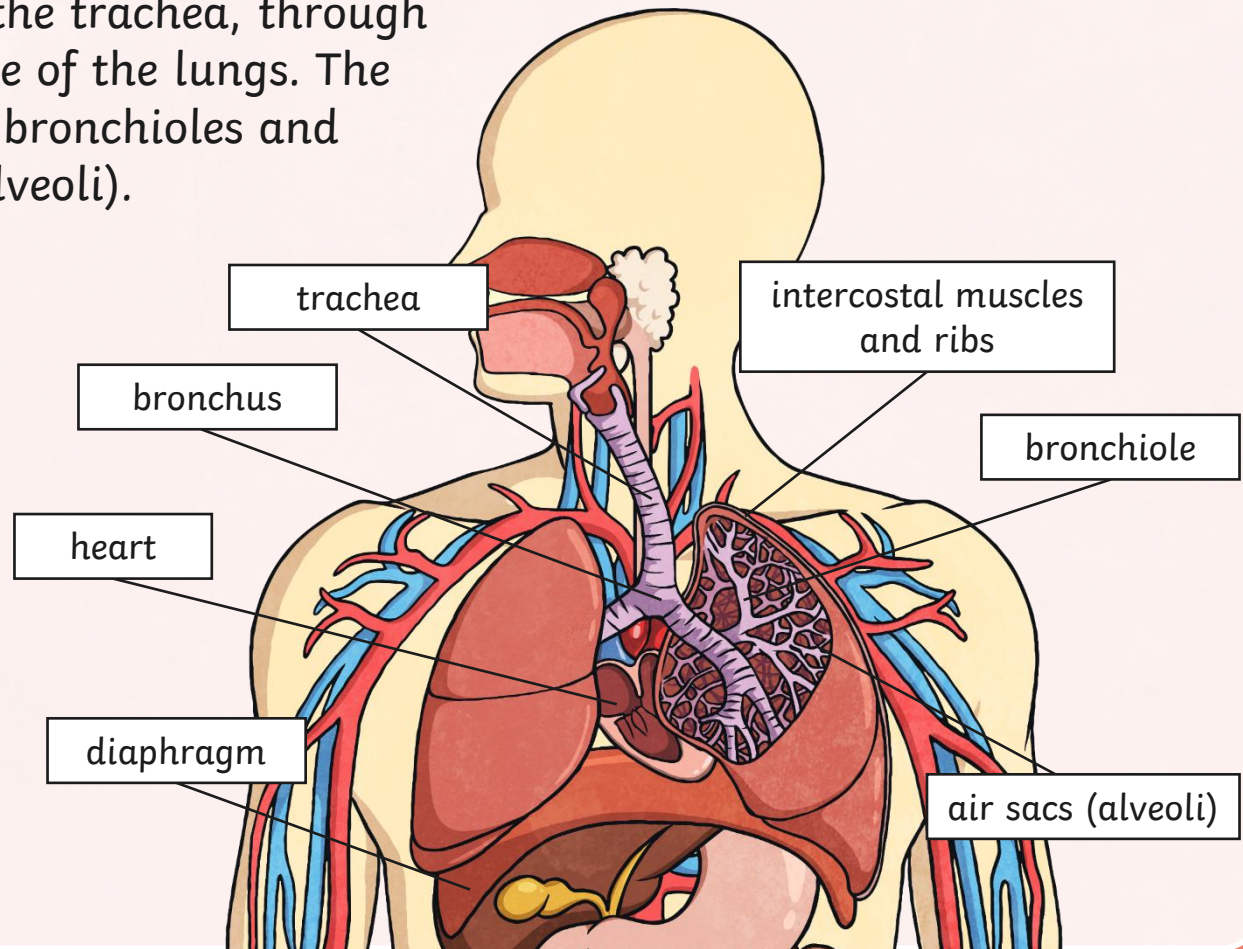


The intercostal muscles and diaphragm then relax and the air is pushed out of the lungs (exhale) as the ribcage falls downward and inhale.



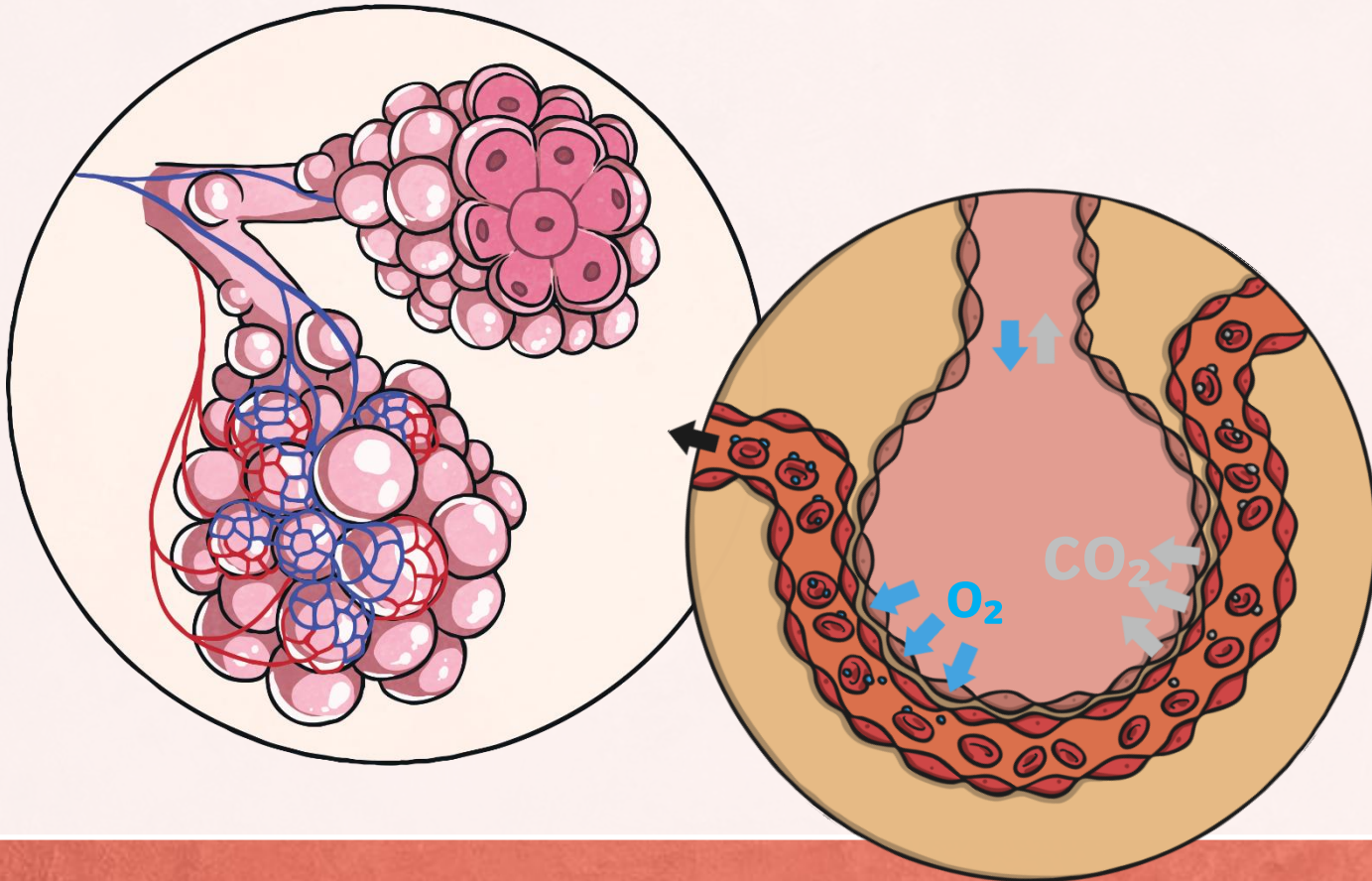
The Function of the Lungs

Air breathed in through the mouth or nose travels down the trachea, through the bronchi into one of the lungs. The air travels into the bronchioles and into the air sacs (alveoli).



The Function of the Alveoli

The oxygen is absorbed into the blood through a layer of moisture in the air sacs (alveoli). Carbon dioxide in the blood is transferred back into the air, which then travels back out of the lungs.



What Blood Vessels Do

Arteries – carries oxygenated blood **away** from the heart

Capillaries – enable **exchange** of oxygen with body

Veins – carries blood from capillaries back to the heart to be pumped **to** the lungs to be re-oxygenated.

