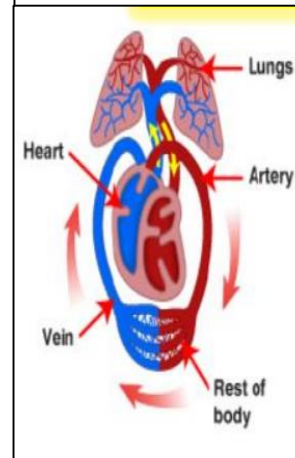


**Key Vocabulary**

arteries	tubes in your body that carry oxygenated blood from your heart to the rest of your body.
atrium	the part of the heart that receives blood from the veins.
blood vessels	narrow tubes that your blood flows through.
carbon dioxide	a gas produced by animals and people breathing out.
Circulatory system	the system responsible for circulating blood through the body, that supplies nutrients and oxygen to the body and removes waste products such as carbon dioxide
Deoxygenated blood	blood that does not contain oxygen
heart	the organ in your body that pumps blood around the body .
lungs	two organs in your chest which fill with air when you breathe in. They oxygenate the blood and remove carbon dioxide from it.
nutrients	substances that help animals and plants grow
pulse	the regular beating of blood through your body. How fast or slow your pulse rate is depends on how active you are
respiration	inhaling oxygen-rich air and exhaling air filled with carbon dioxide
veins	a tube in your body that carries deoxygenated blood to your heart from the rest of your body.
ventricle	the part of the heart from which blood passes into the arteries.
capillaries	the part of the heart from which blood passes into the arteries.

**The Circulatory System**

The circulatory system is made up of the **heart, lungs and blood vessels**. Arteries carry oxygenated blood from the heart to the rest of the body. Veins carry deoxygenated blood from the body to the heart. Nutrients, oxygen and carbon dioxide are exchanged via the **capillaries**.



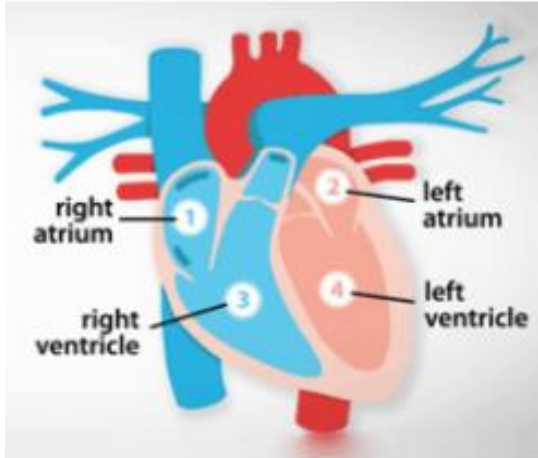
**Healthy diet and Exercise**

- A healthy and balanced diet and regular exercise is important in helping the body to function.
- Exercise can:
  - tone our muscles and reduce fat.
  - increase fitness.
  - make you feel physically and mentally healthier.
  - strengthens the heart.
  - improves lung function.
- Some choices, such as smoking and drinking alcohol can be harmful to our health.
- Tobacco can cause short-term effects such as shortness of breath, difficulty sleeping and loss of taste and long-term effects such as lung disease, cancer and death.
- Alcohol can cause short-term effects such as addiction and loss of control and long-term effects such as organ damage, cancer and an earlier death.

**The Heart**

The heart is composed of four chambers; the right **atrium**, the right **ventricle**, the left **atrium** and the left **ventricle**. How often your heart pumps is called your **pulse**.

**Blood:**  
 Transports oxygen and nutrients to the lungs and tissues  
 Forms blood clots to prevent blood loss  
 Carries cells to fight infection  
 Brings waste products to organs  
 Regulates body temperature



**The Function of the Heart**

- Deoxygenated blood flows into the heart from the body through the veins.
- This blood is pumped out of the lungs through the pulmonary artery.
- Blood is then the oxygenated in lungs
- Blood returns to the heart through the pulmonary veins.
- The oxygenated blood is then pumped out of the heart through the aorta.
- The blood travels around the body delivering oxygen and nutrients to the organs.

**Focused Scientist – Barbara Casadei**

Barbara Casadei is a British Heart Foundation Professor and an Honorary Consultant Cardiologist at the John Radcliffe Hospital in Oxford. She is a researcher helping the British Heart Foundation find cures for cardiovascular conditions.

