

Human circulatory system

Humans have **two circuits** of blood flow. This is called **double circulation**. This means that blood flows in **two different directions** at the same time.

These two circuits of blood flow are :

- a) The pulmonary circulatory system.
- b) The systemic circulatory system.

Human circulatory system

- ▶ Blood flows from the heart to the lungs and back
- ▶ Deoxygenated blood leaves the **right ventricle** through the **pulmonary artery** to the lungs
- ▶ The blood absorbs oxygen from the lungs via diffusion and release carbon dioxide
- ▶ Oxygenated blood flows back to the left atrium via the **pulmonary vein**.

Human circulatory system

Systemic circulatory system

- ▶ Blood flows from the heart to the rest of the body and back
 - ▶ Oxygenated blood leaves the **left ventricle** through the **aorta** and branches throughout the body into smaller arteries, arterioles and capillaries
 - ▶ Exchange of substances occur between the capillaries and tissue cells
 - ▶ Capillaries form venules and veins
 - ▶ Deoxygenated blood flows through the superior- and inferior vena cava to the right atrium
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