

# The Cardiovascular System

What does your cardiovascular system do?

The **cardiovascular system** delivers nutrients to cells and carries away their wastes. It includes your blood, heart, and blood vessels.

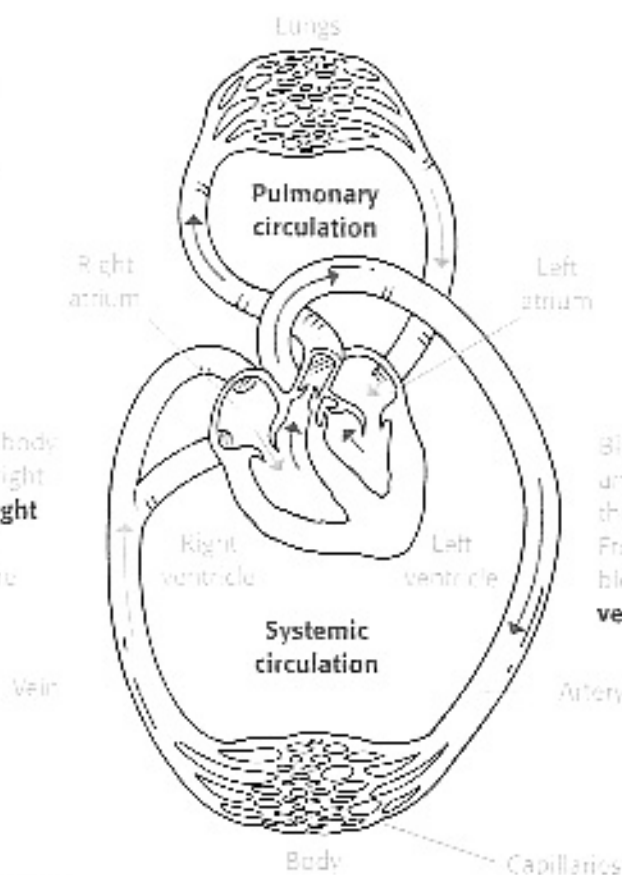
**Blood** is a tissue made of cells and cell parts floating in a liquid. The liquid is called **plasma**. There are two kinds of blood cells. **Red blood cells** carry oxygen to cells. Cells need oxygen to live.

**White blood cells** fight germs that invade your body. **Platelets** are cell parts that help blood clot when you are cut.

Oxygen-poor blood from the body enters the **right atrium**. The right atrium pumps blood to the **right ventricle**, which then pumps blood to the lungs through the pulmonary arteries.

How blood flows through the body

The **heart** is a muscular organ that pumps blood through the body in two loops. **Pulmonary circulation** moves blood from the heart to the lungs and back. **Systemic circulation** moves blood from the heart to the body and back. Three types of vessels carry the blood. **Arteries** carry blood from the heart to the body. **Veins** carry blood from the body to the heart. **Capillaries** connect arteries and veins. They have thin walls through which dissolved materials can pass.



Blood gains oxygen in the lungs and returns to the **left atrium** through the pulmonary veins. From there, the oxygen-rich blood is pumped to the **left ventricle** and then to the body.

## Show What You Know

**Why does blood from the body need to be pumped through the lungs before it is pumped back out to the body?**

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