

Heart Key Terms

The words you need to describe the heart precisely, each with a short definition.

♥ Parts of the heart

Atrium (plural: atria)

One of the two upper chambers. The atria receive blood from veins and pass it down to the ventricles.

Ventricle

One of the two lower chambers. Their thick walls contract to pump blood out of the heart into arteries.

Septum

The wall of muscle that separates the right and left sides of the heart, keeping oxygen-poor and oxygen-rich blood apart.

Myocardium

The thick middle layer of the heart wall, made of cardiac muscle, which contracts to pump blood.

Coronary arteries

Arteries that branch off the aorta and run over the surface of the heart, supplying the heart muscle itself with oxygen.

🏠 Valves

Atrioventricular valves

The valves between each atrium and ventricle: the tricuspid (three flaps, right side) and the mitral or bicuspid (two flaps, left side).

Semilunar valves

The pulmonary and aortic valves at the exits of the ventricles. They stop blood flowing back from the arteries into the heart.

Chordae tendineae

Strong cords that anchor the flaps of the atrioventricular valves, so the flaps cannot be pushed back up into the atria.

🔄 Circulation

Double circulation

A system of two loops in which blood passes through the heart twice on each full circuit: once to the lungs, once to the body.

Pulmonary circulation

The loop from the right ventricle to the lungs, where blood gains oxygen, and back to the left atrium.

Systemic circulation

The loop from the left ventricle round the rest of the body and back to the right atrium.

Oxygenated / deoxygenated

Oxygen-rich and oxygen-poor blood. Diagrams colour them red and blue, but real blood is always red.

📶 The heartbeat

Sinoatrial (SA) node

The heart's natural pacemaker: a group of cells in the wall of the right atrium that starts each beat with an electrical signal.

Atrioventricular (AV) node

Passes the signal from the atria to the ventricles after a short delay, so the ventricles can finish filling first.

Systole and diastole

Systole is the contracting, pumping phase of a heartbeat. Diastole is the relaxing phase, when the chambers fill with blood.

Stroke volume and cardiac output

Stroke volume: blood pumped by one ventricle in a beat. Cardiac output: blood pumped per minute = stroke volume × heart rate.

ECG (electrocardiogram)

A recording of the heart's electrical signals made with sensors on the skin. Its main waves are labelled P, QRS and T.

💡 Memory hook

Arteries carry blood Away from the heart: both start with A. The rule is about direction, not oxygen, which is why the pulmonary artery can carry oxygen-poor blood.

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