

Anatomy of the Heart: A Quick Review

This document provides a concise overview of key anatomical structures of the human heart for testing purposes.

Chambers of the Heart

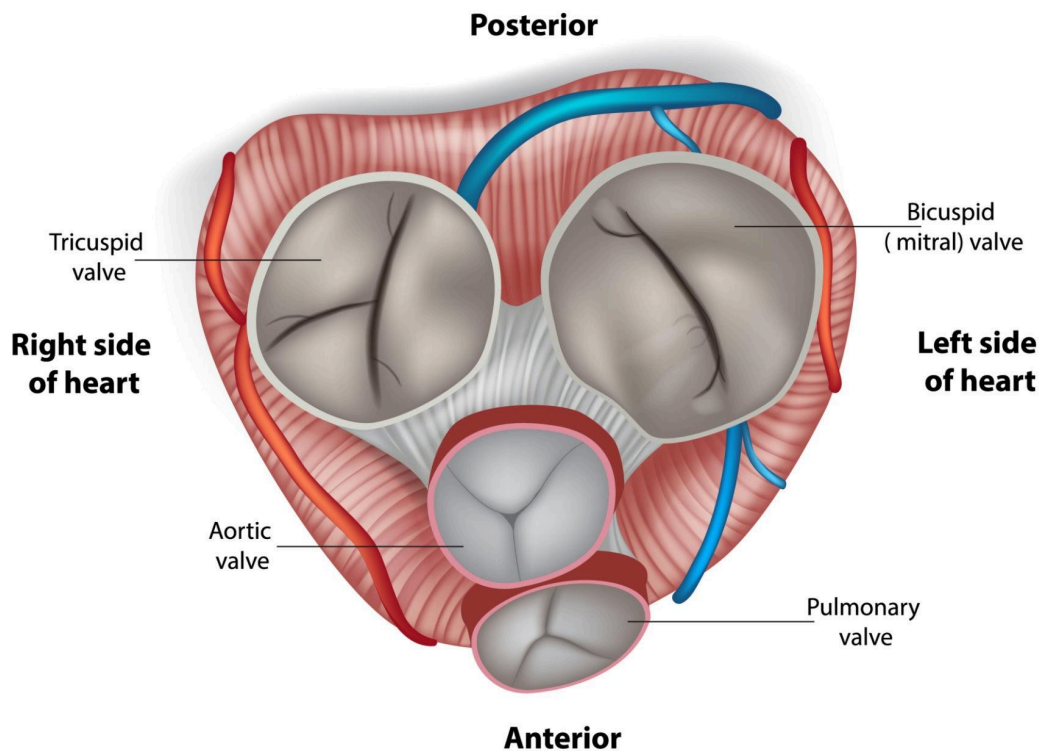
The heart is a four-chambered muscular organ.

- **Right Atrium (RA):** Receives deoxygenated blood from the body via the Superior and Inferior Vena Cava.
- **Right Ventricle (RV):** Pumps deoxygenated blood to the lungs via the Pulmonary Artery.
- **Left Atrium (LA):** Receives oxygenated blood from the lungs via the Pulmonary Veins.
- **Left Ventricle (LV):** Pumps oxygenated blood to the rest of the body via the Aorta. The LV wall is the thickest of the four chambers due to the high pressure required for systemic circulation.

Heart Valves

Valves ensure unidirectional blood flow, preventing backflow (regurgitation). There are two types: atrioventricular and semilunar.

- **Tricuspid Valve:** An atrioventricular valve located between the Right Atrium and Right Ventricle. It has three leaflets.
- **Mitral (Bicuspid) Valve:** An atrioventricular valve between the Left Atrium and Left Ventricle. It has two leaflets.
- **Pulmonary Valve:** A semilunar valve located between the Right Ventricle and the Pulmonary Artery.
- **Aortic Valve:** A semilunar valve located between the Left Ventricle and the Aorta.



Layers of the Heart Wall

The wall of the heart is composed of three distinct layers.

- **Epicardium:** The outermost layer, also known as the visceral layer of the pericardium.
 - **Myocardium:** The middle, muscular layer responsible for the heart's contraction. This is the thickest layer.
 - **Endocardium:** The innermost layer, lining the chambers and valves. It is composed of simple squamous endothelium.
-

Major Blood Vessels

- **Vena Cava (Superior & Inferior):** Large veins that carry deoxygenated blood from the body into the Right Atrium.
 - **Pulmonary Artery:** Carries deoxygenated blood from the Right Ventricle to the lungs. It is the only artery to carry deoxygenated blood.
 - **Pulmonary Veins:** Carry oxygenated blood from the lungs to the Left Atrium. They are the only veins to carry oxygenated blood.
 - **Aorta:** The largest artery in the body, carrying oxygenated blood from the Left Ventricle to the systemic circulation.
-

Coronary Circulation

The myocardium receives its own blood supply from the coronary arteries, which branch off the aorta.

- **Right Coronary Artery (RCA):** Supplies the right atrium, right ventricle, and the posterior third of the interventricular septum.
- **Left Main Coronary Artery (LMCA):** A short vessel that quickly divides into two major branches.
 - **Left Anterior Descending (LAD):** Supplies the anterior two-thirds of the interventricular septum and the anterior wall of the left ventricle.
 - **Left Circumflex Artery (LCX):** Supplies the posterolateral aspect of the left ventricle.

