



SNS COLLEGE OF ALLIED HEALTH SCIENCES
SNS Kalvi Nagar, Coimbatore - 35
Affiliated to Dr MGR Medical University, Chennai



DEPARTMENT : CARDIAC TECHNOLOGY

COURSE NAME: ANATOMY

UNIT : HEART

TOPICS : CHAMBERS AND VALVES OF THE HEART



CHAMBERS OF THE HEART

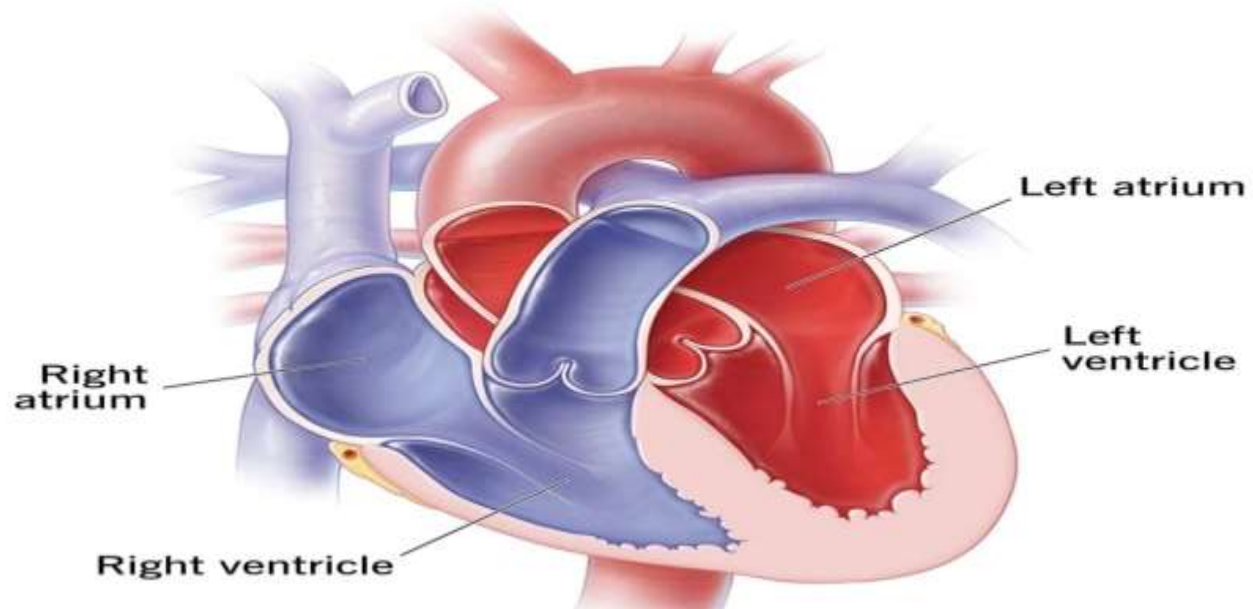


Right Atrium:

- Receives deoxygenated blood from the superior vena cava (bringing blood from the upper body) and the inferior vena cava (bringing blood from the lower body).
- Also receives blood from the coronary sinus, which collects blood from the heart muscle itself.
- Contracts to push blood through the tricuspid valve into the right ventricle.



Heart Chambers





Right Ventricle:

- Receives deoxygenated blood from the right atrium.
- Contracts to pump blood through the pulmonary valve into the pulmonary artery, sending it to the lungs for oxygenation.



Left Atrium:

- Receives oxygenated blood from the lungs through the pulmonary veins (four in total)
- Contracts to push blood through the bicuspid (mitral) valve into the left ventricle.



Left Ventricle:

- Receives oxygenated blood from the left atrium.
- Contracts to pump blood through the aortic valve into the aorta, sending it to the rest of the body.



Valves of the Heart



Atrioventricular (AV) Valves:

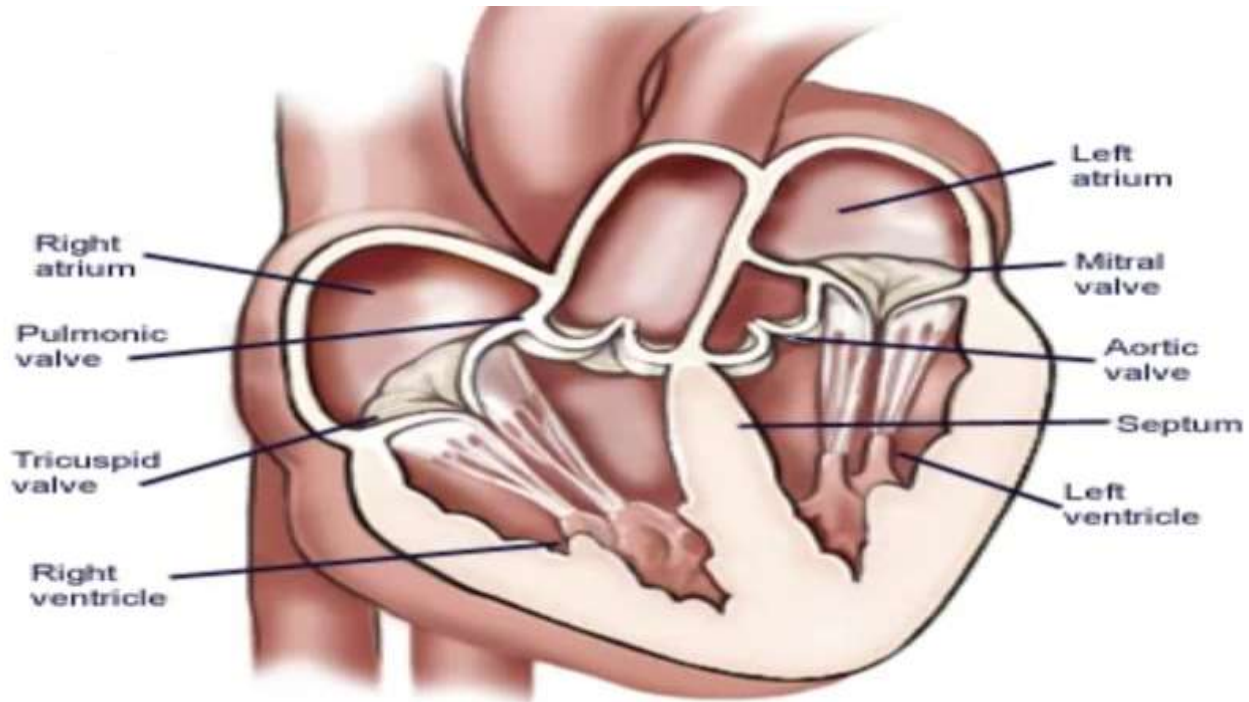
Tricuspid Valve:

- Located between the right atrium and the right ventricle.
- Composed of three cusps (flaps).
- Prevents the backflow of blood from the right ventricle into the right atrium during ventricular contraction.



Bicuspid (Mitral) Valve:

- Located between the left atrium and the left ventricle.
- Composed of two cusps.
- Prevents the backflow of blood from the left ventricle into the left atrium during ventricular contraction.





Ascending Aorta:

- Originates from the left ventricle.
- Carries oxygenated blood to the systemic circulation.

Superior Vena Cava:

- Large vein bringing deoxygenated blood from the upper body into the right atrium.

Inferior Vena Cava:

- Large vein bringing deoxygenated blood from the lower body into the right atrium.



Semilunar Valves:

Pulmonary Valve:

- Positioned at the base of the pulmonary trunk.
- Consists of three semilunar cusps.
- Prevents the backflow of blood from the pulmonary artery into the right ventricle during ventricular relaxation.



Aortic Valve:

- Positioned at the base of the aorta.
- Consists of three semilunar cusps.
- Prevents the backflow of blood from the aorta into the left ventricle during ventricular relaxation.



ASSESSMENT



- What all are the Chambers of the Heart ?
- What all are the Valves of the Heart ?