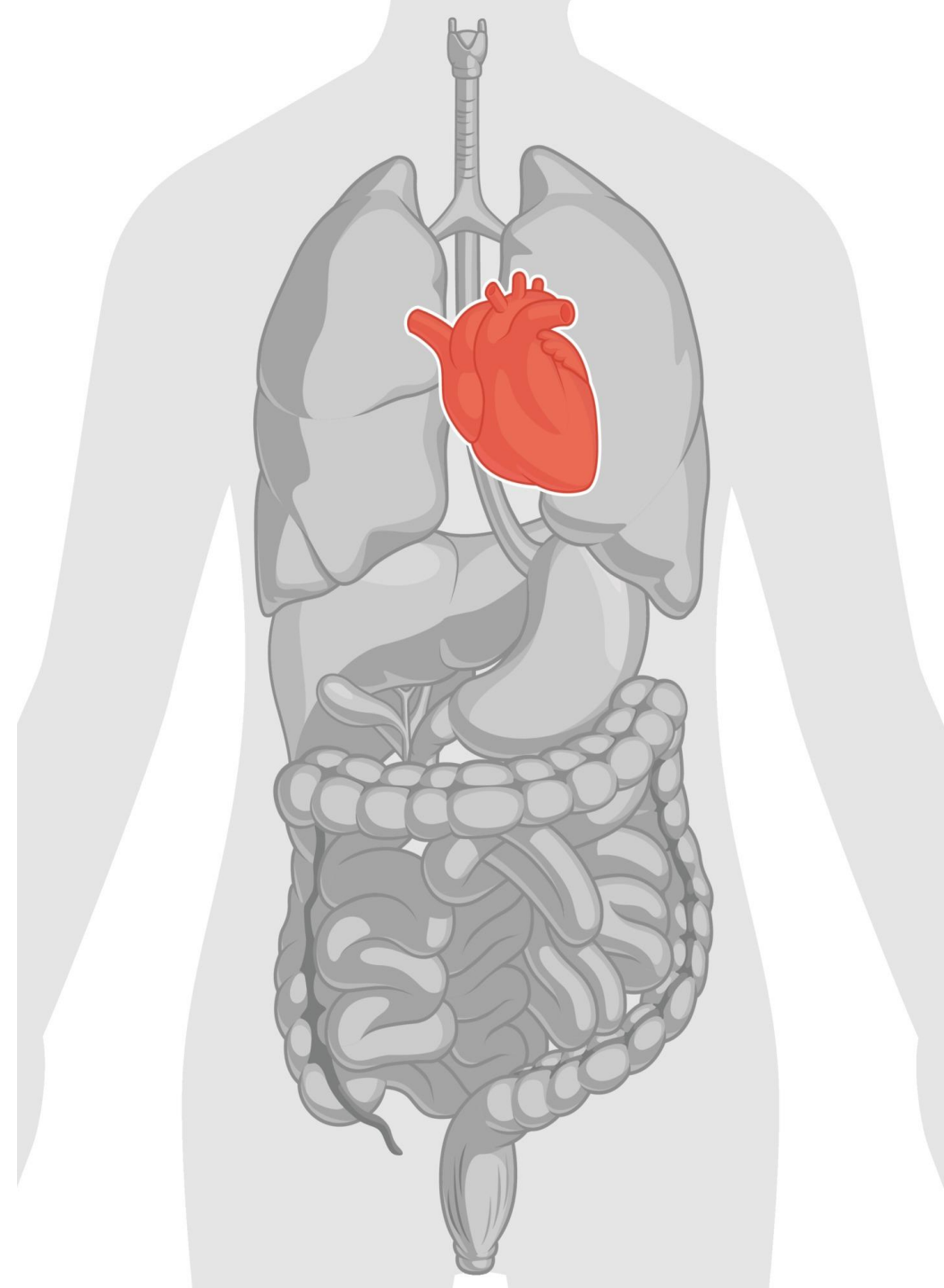


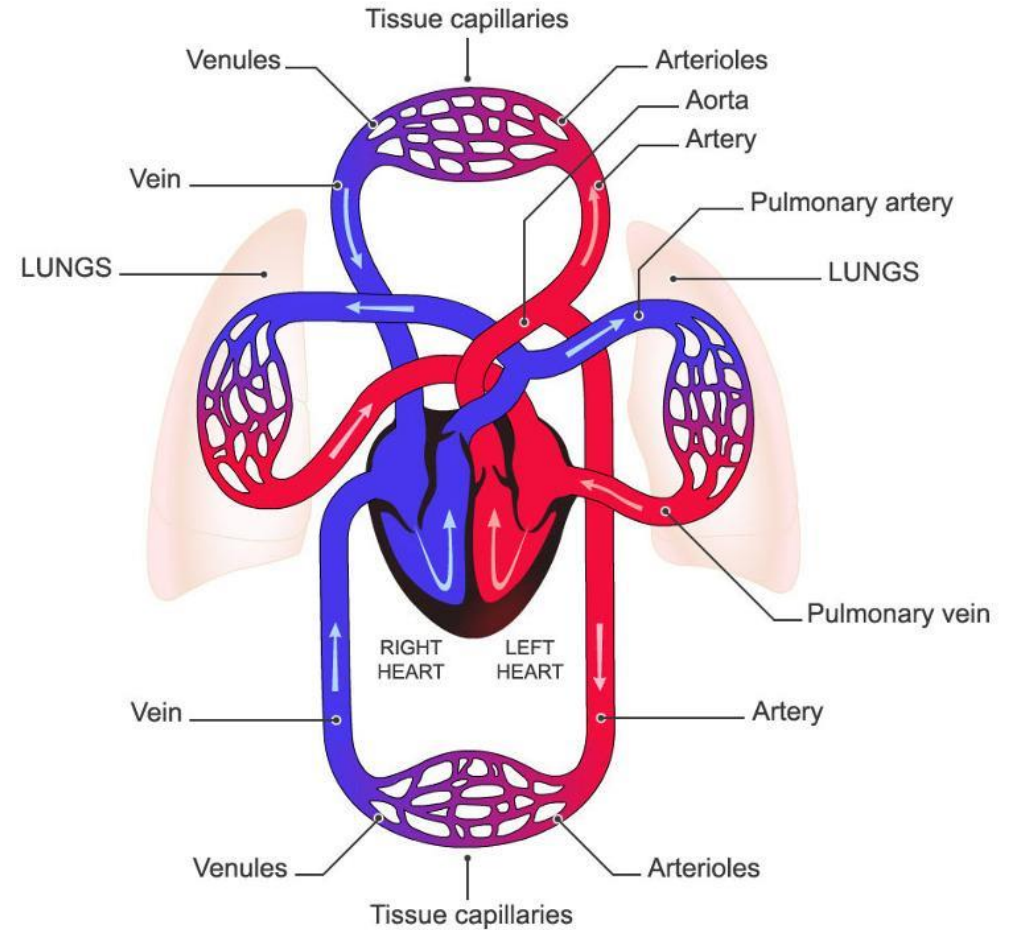
Anatomy of Cardiovascular System

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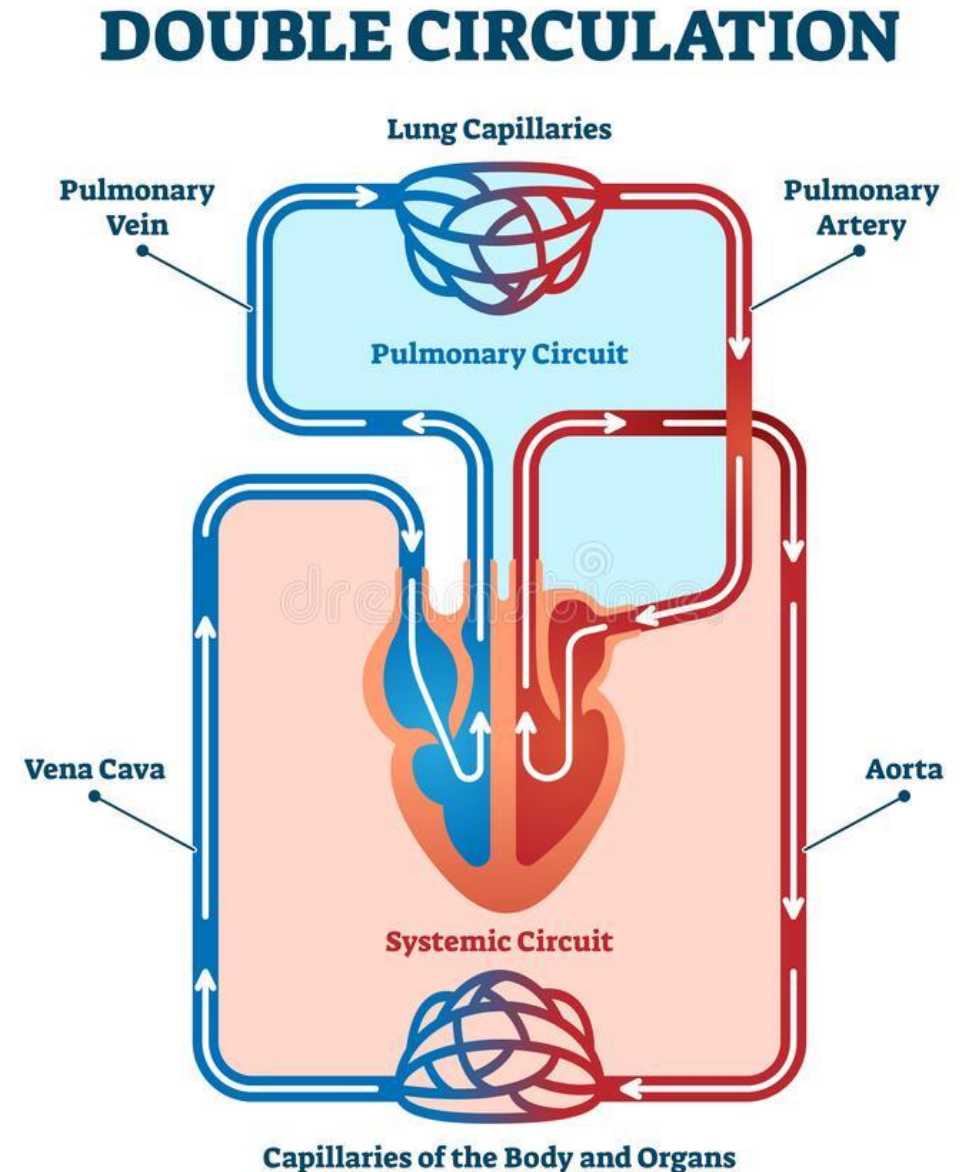
Cardiovascular System

- Also called circulatory system
- Consists of:
 1. the heart,
 2. arteries,
 3. veins,
 4. capillaries



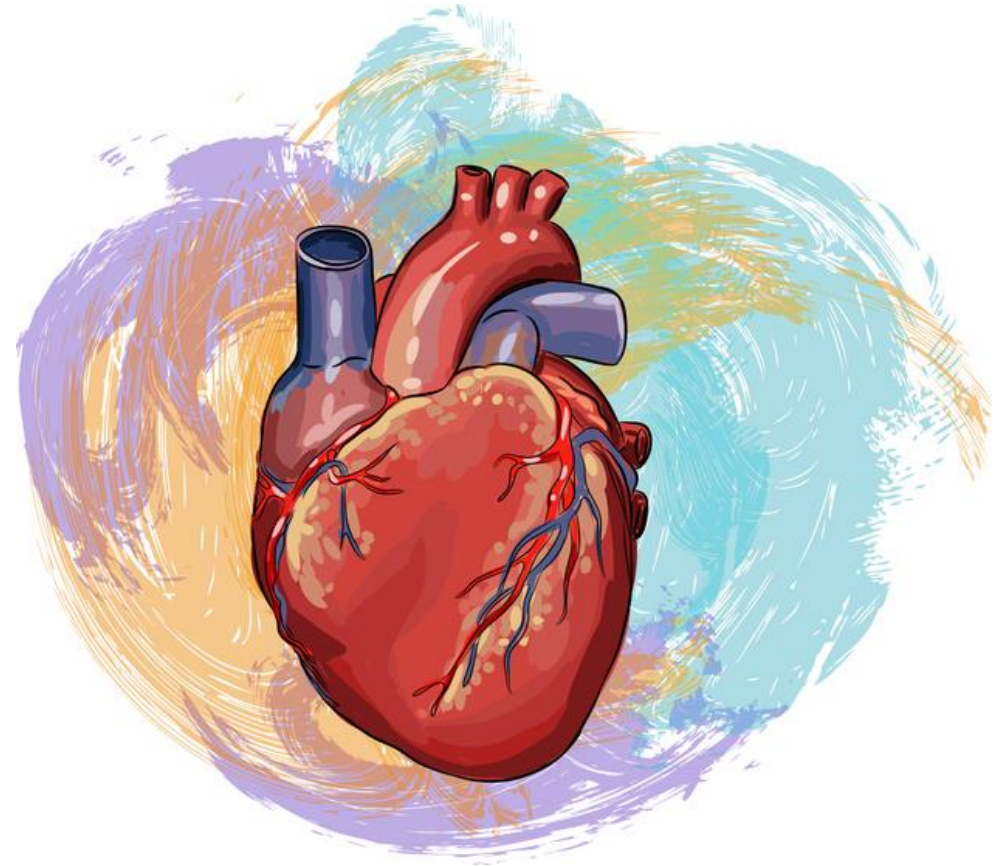
Circulatory Routes

- **Systemic Circulation** – blood flow from the L ventricle to the body & back to the R atrium
- **Pulmonary Circulation** – blood flow from the R ventricle to the lungs and back to the L atrium

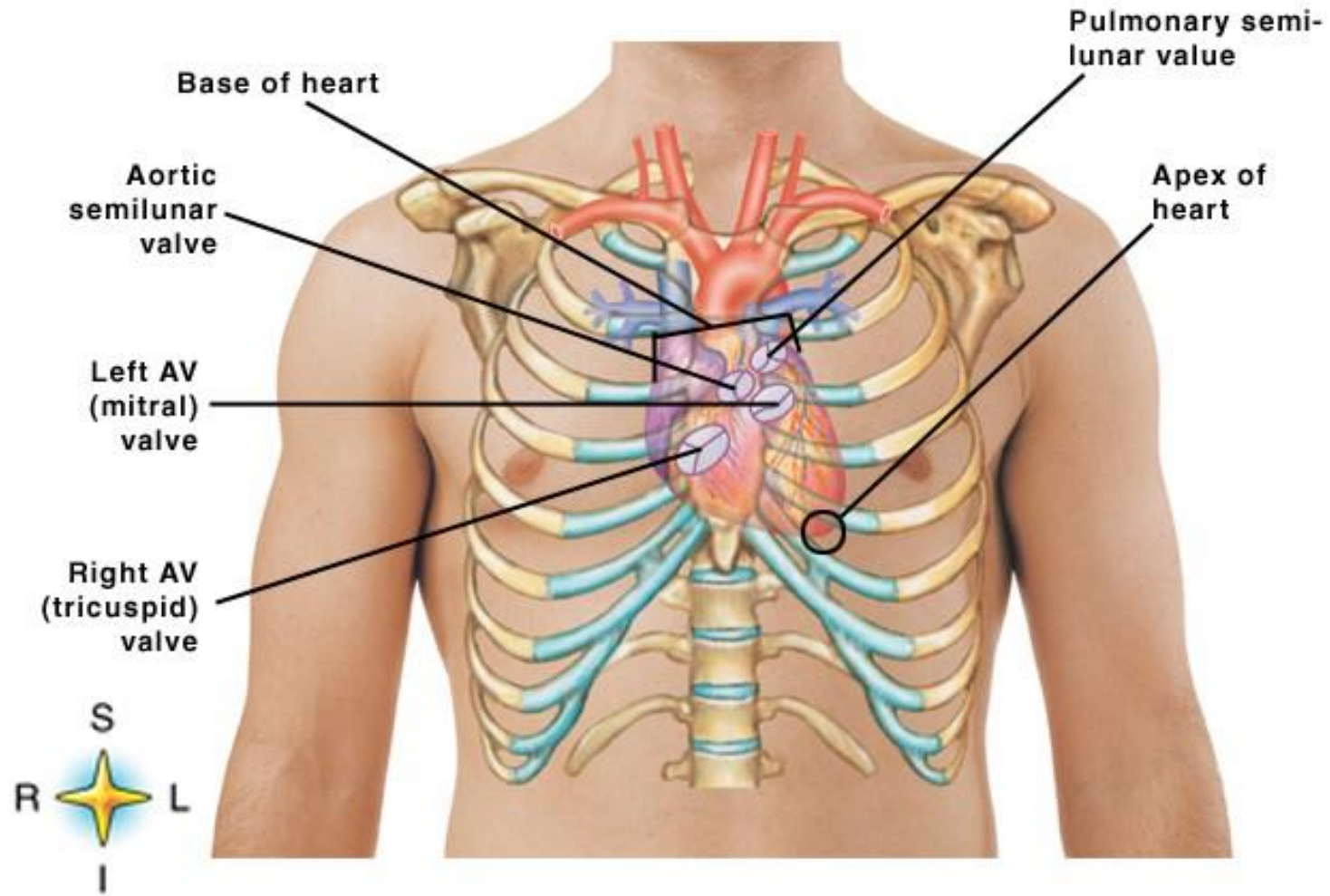


Heart

- Four chamber muscular organ
- Comparable to the size of a closed fist
- Located in the mediastinum
 - Behind sternum
 - Between 2nd and 6th ribs
 - Between T5-T8
- Apex – base of heart
 - Located at the 5th intercostal space

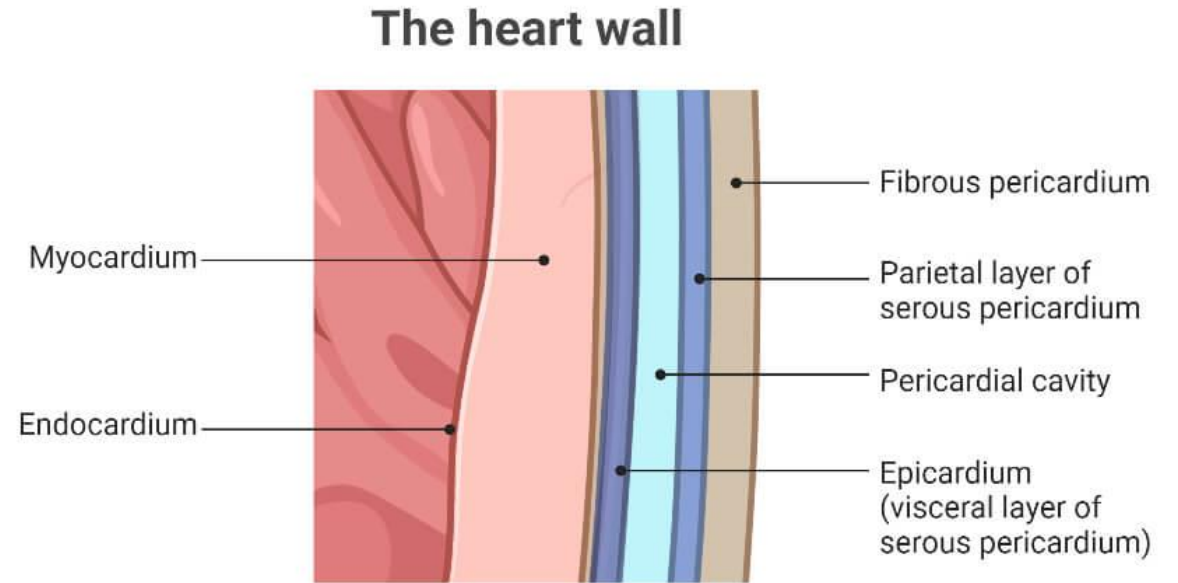


Heart



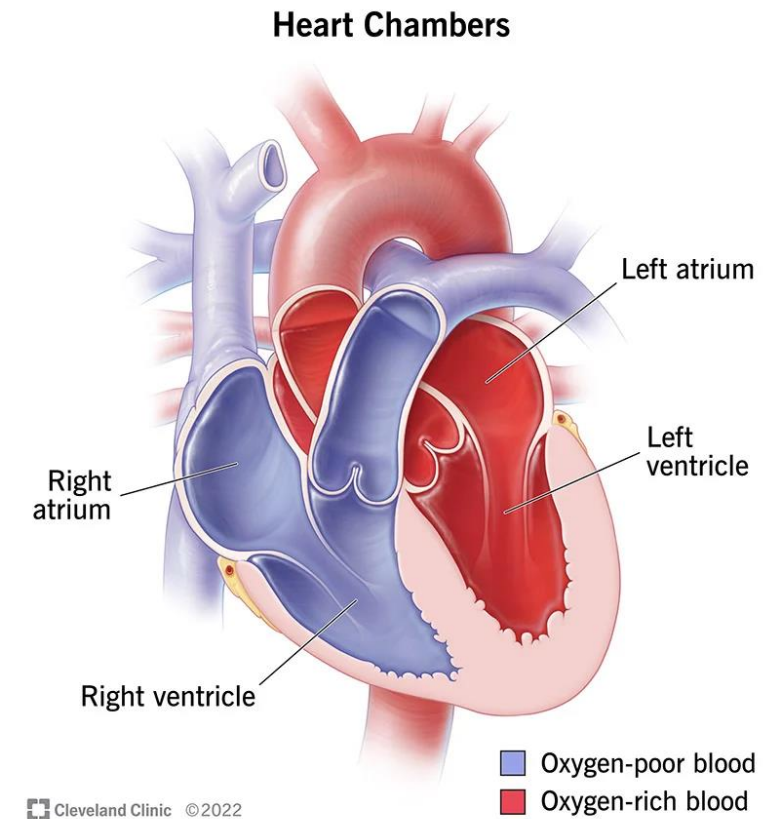
Walls of the Heart

- **Epicardium** – outer layer
 - Epicardium = serous pericardium
- **Myocardium** – thick, contractile layer composed of cardiac muscle cells
 - Intercalated disks contain many gap junctions
 - Allow cardiac muscle cells to function as a single unit → syncytium
- **Endocardium** – interior of cardiac wall
 - Endothelial tissue
 - Covers projections of myocardial tissue called trabeculae



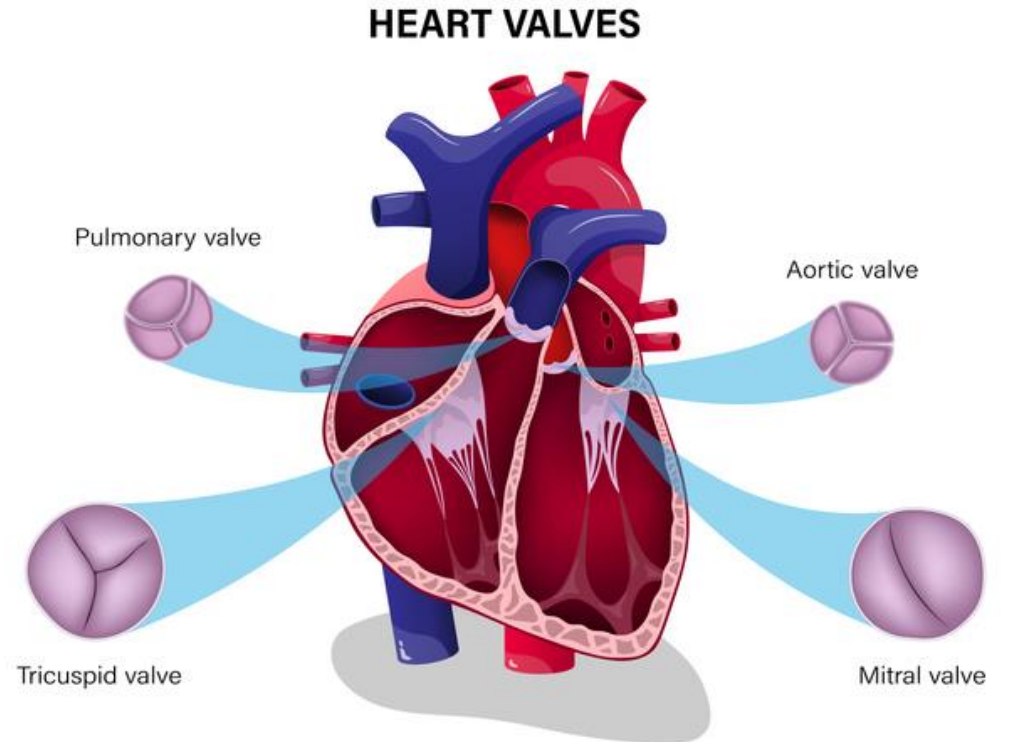
Chambers of the Heart

- **Atria – two superior chambers**
 - “Receiving chambers”
 - Blood from veins enters atria
- **Ventricles – two inferior chambers**
 - “pumping chambers”
 - Thick muscular walls to increase force of pumping action
 - Left > right
 - Separated by interventricular septum



Valves of the Heart

- Permit blood flow in one direction during circulation
- the four valves of the heart are:
 1. Aortic valve.
 2. Mitral valve.
 3. Pulmonary valve (or pulmonic valve).
 4. Tricuspid valve.



Types of Blood Vessels

- There are three types of [blood vessels](#):
- **Arteries** carry blood away from your heart.
- **Veins** carry blood back toward your heart.
- **Capillaries**, the smallest blood vessels, connect arteries and veins.

