



Medical Terminology

Lecture 5: The cardiovascular system

Cardiovascular System



-Functions of Cardiovascular (CV) System

- Distribute blood to all areas of body
- Delivery of needed substances to cells
- Removal of waste

Organs of Cardiovascular System



Heart



Arteries



Capillaries

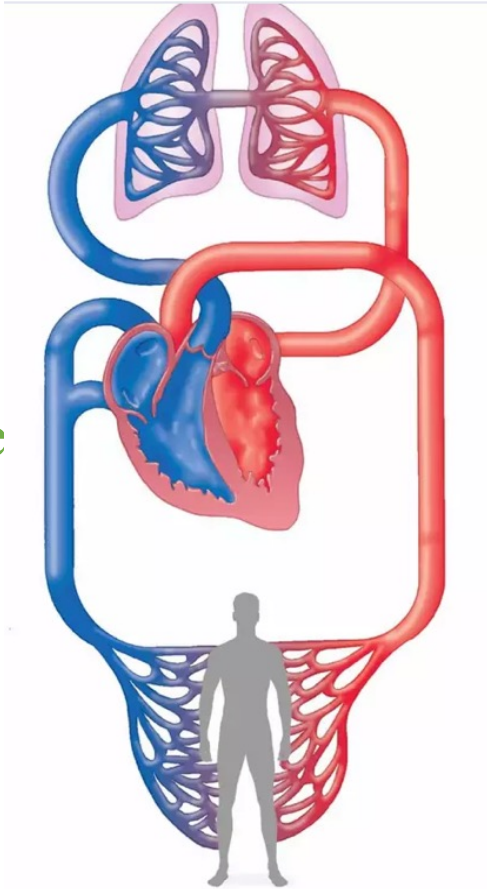


Veins



Cardiovascular Combining Forms

- angi/o
 - vessel
- aort/o
 - aorta
- arteri/o
 - arter
- ather/o
 - fatty substance
- atri/o
 - atriu



- hemangi/o
 - blood vessel
- phleb/o
 - vei
- sphygm/o
 - pulse
- steth/o
 - ches



Cardiovascular System Suffixes

- manometer

 - instrument to measure pressure

- ole

 - small

- -tension

 - pressure





Anatomy and Physiology

- Also called **circulatory system**
- Maintains distribution of blood throughout body
 - Delivers **oxygen** and nutrients like **glucose** and **amino acids** to cells
 - Picks up **carbon dioxide** and other **waste products** from cells and delivers to lungs, liver, and kidneys for elimination



Anatomy and Physiology

- Is composed of:

- Heart

- Arteries

- Capillaries

- Veins

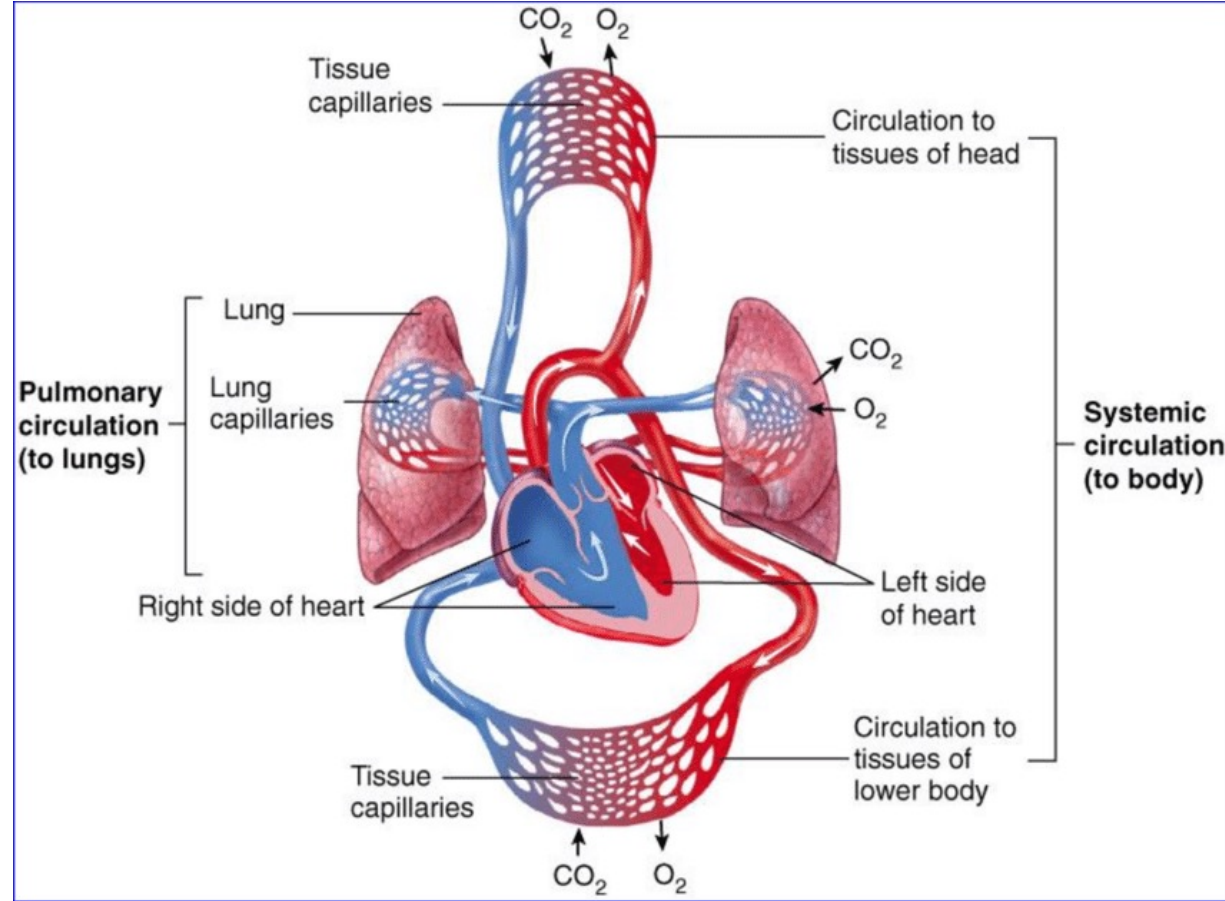
- Divided into

- pulmonary circulation

- systemic circulation

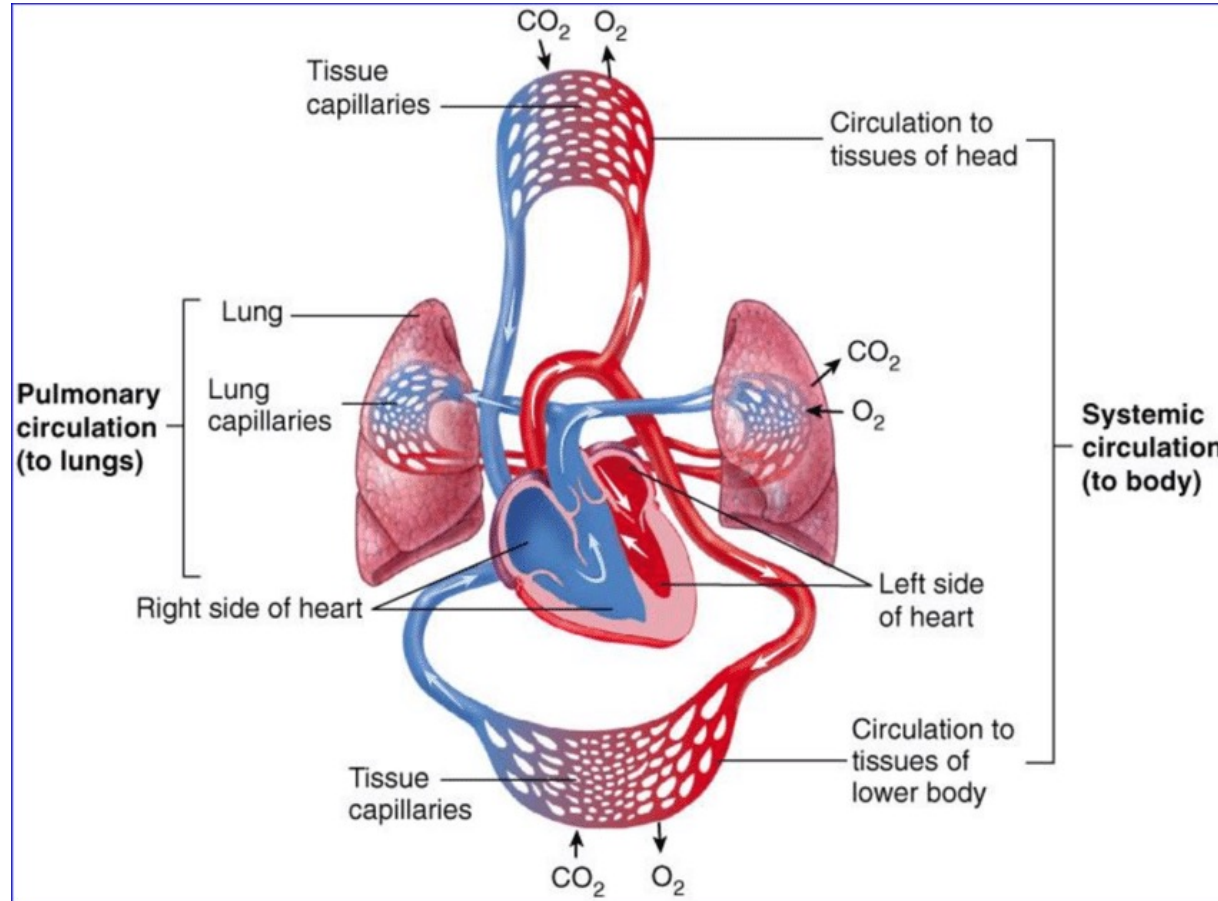


Pulmonary Circulation



- Between heart and lungs
- Carries deoxygenated blood away from right side of heart to lungs
- Carries oxygenated blood from lungs to left side of heart

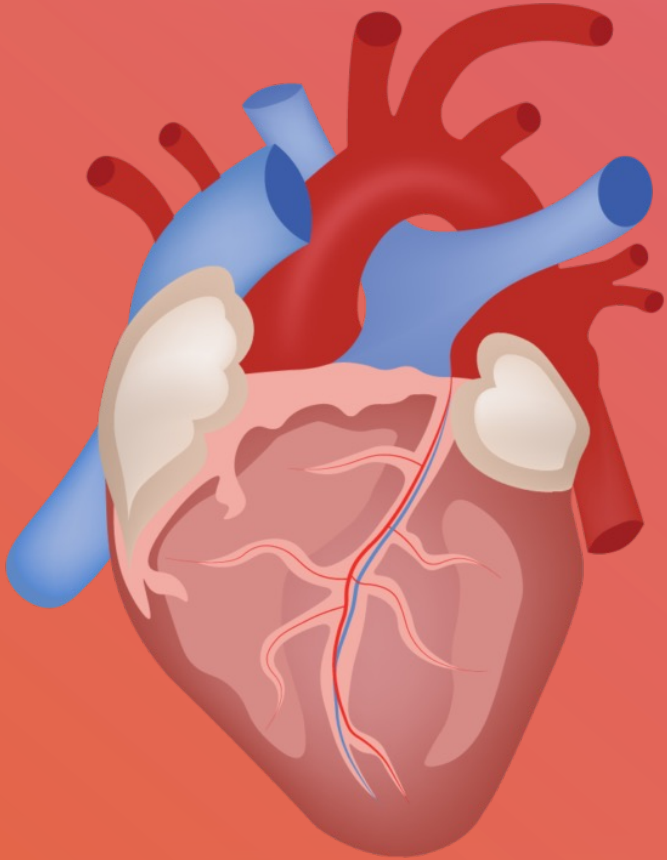
Systemic Circulation



- Between heart and cells of body
- Carries oxygenated blood away from left side of heart to body
- Carries deoxygenated blood from body to right side of heart



The HEART

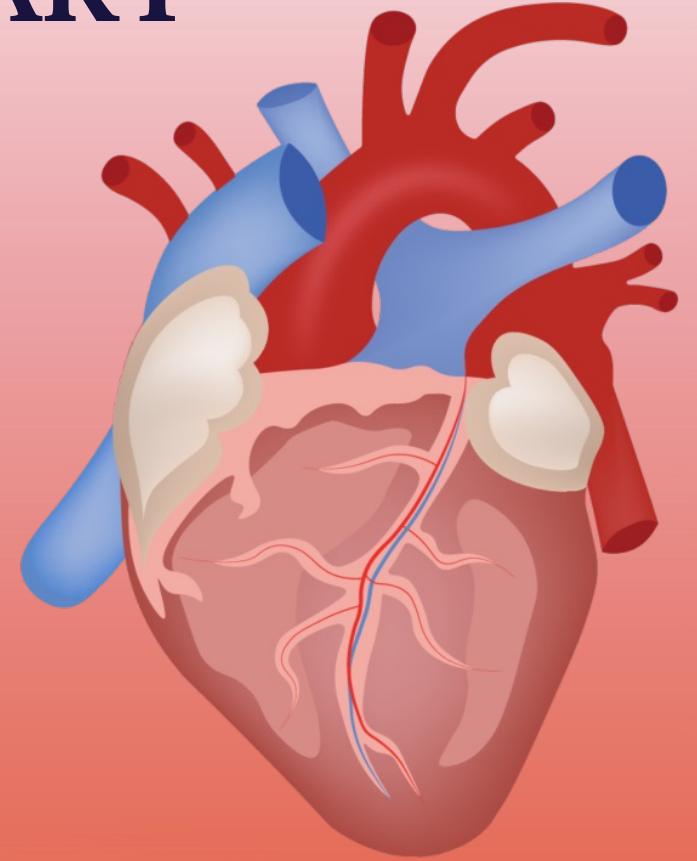


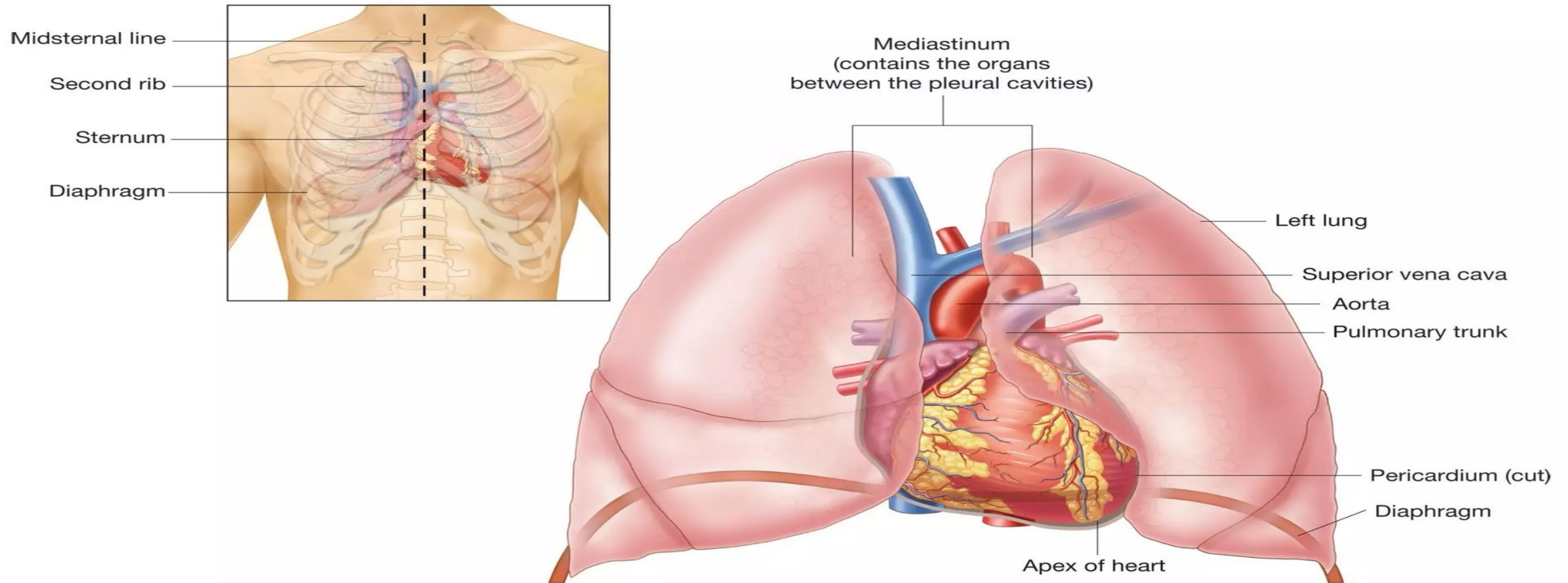
- Muscular pump
 - Made up of cardiac muscle fibers
 - Could be called a **muscle** instead of an **organ**
- Beats an average of 60 - 100 beats per minute (bpm), or about 100,000 times a day
- Each time the muscle contracts:
 - Blood is **ejected** from heart
 - Pushed throughout body within blood vessel



The HEART

- Located in the mediastinum
 - More to **left side of chest**
 - Directly **behind sternum**
- About size of a fist
- Shaped like upside-down pear
- Tip of heart at lower edge
 - Called the **apex**





Location of the heart within the mediastinum of the thoracic cavity.

Heart Chambers



- Divided into four chambers
 - Two atria
 - Two ventricles
- Heart is divided into right and left sides by a wall called the septum

Atria

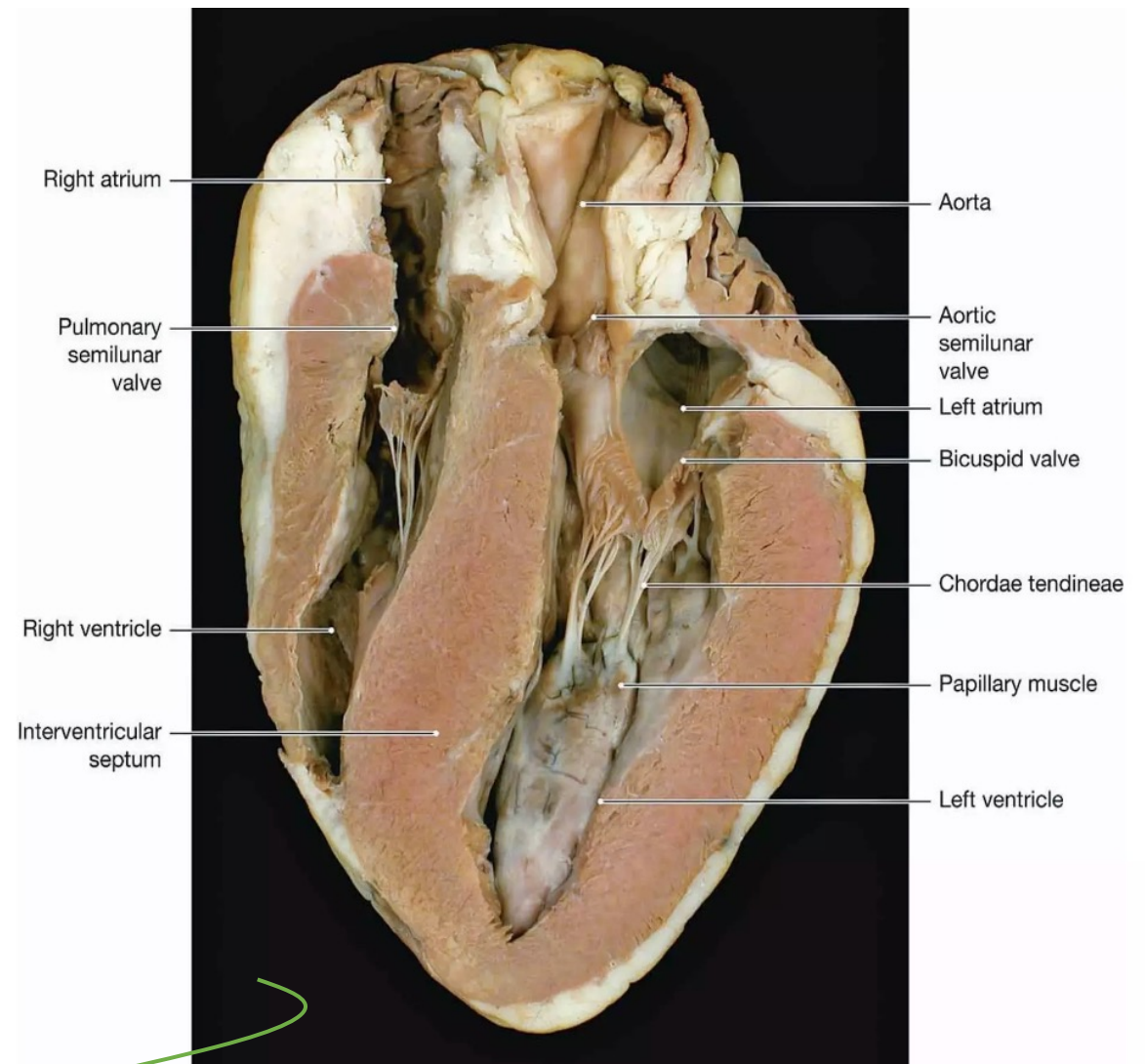
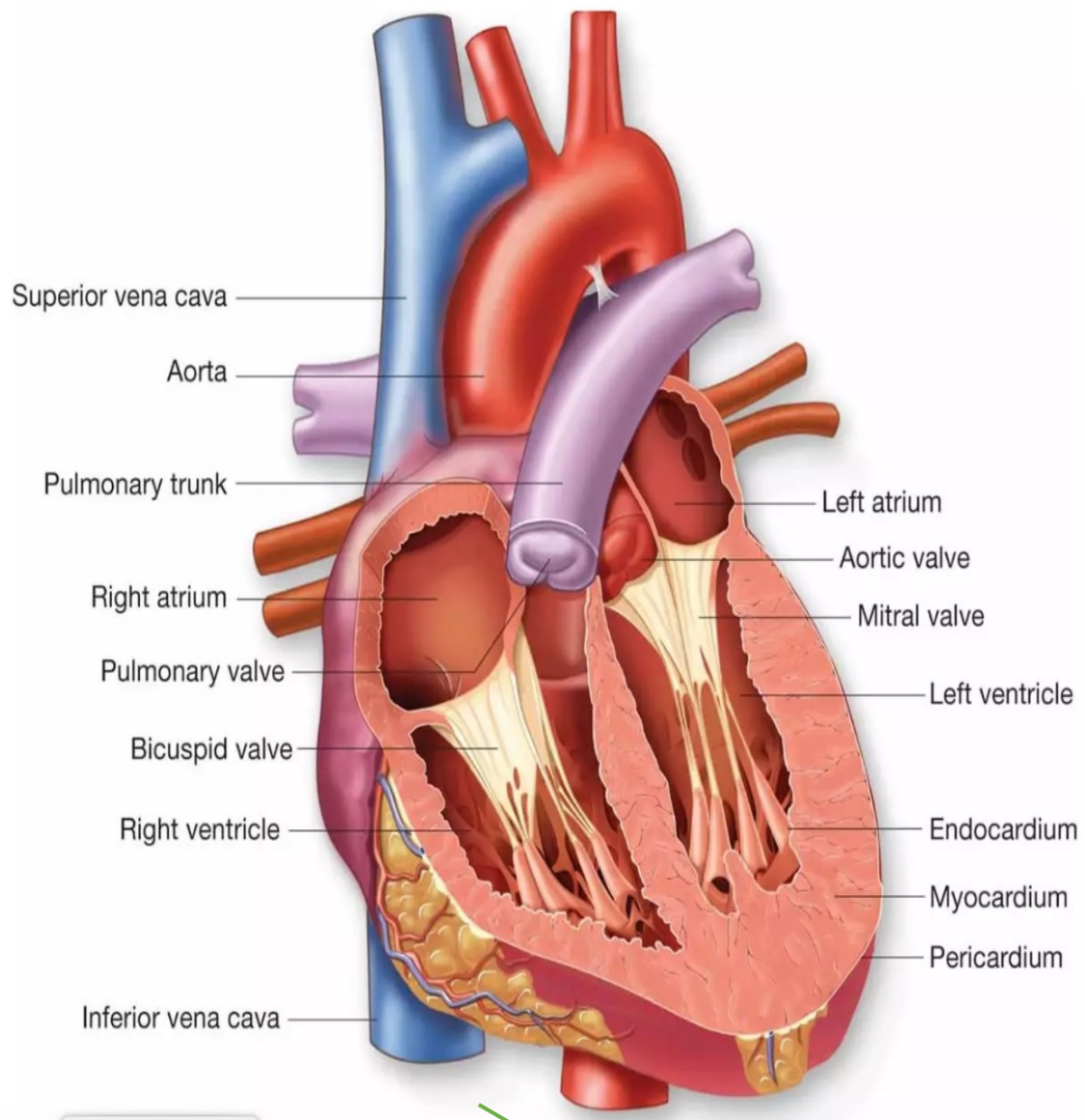


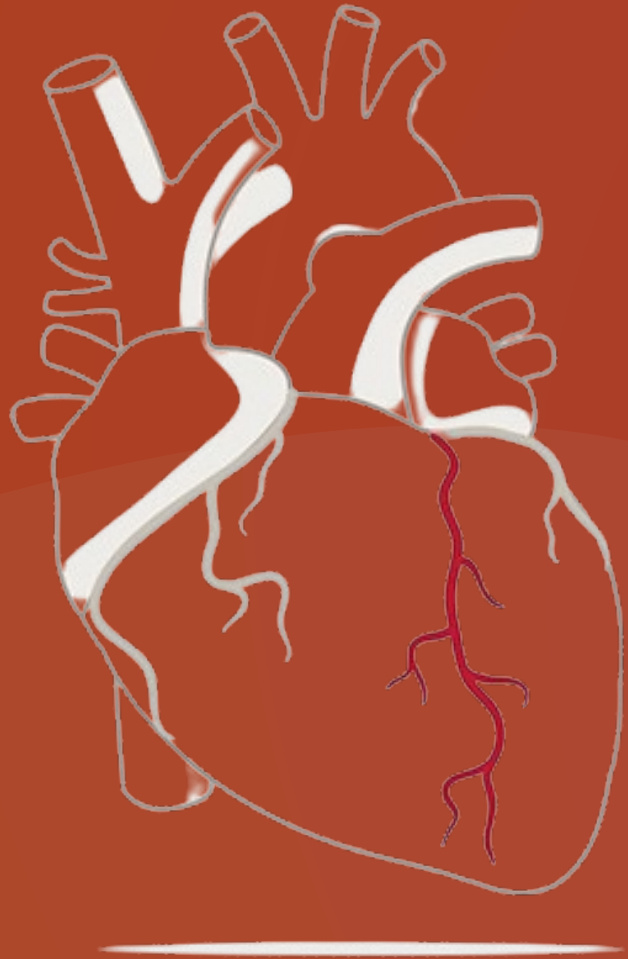
- Left and right upper chambers
- Receiving chambers
- Blood returns to atria in veins
 - Superior
 - Inferior vena cava
 - Pulmonary vein

Ventricles



- Left and right lower chambers
- Pumping chambers
 - Thick myocardium
- Blood exits ventricles into arteries
 - Aorta
 - Pulmonary artery





Thank You

Do you have any question!!!!