

# **The Circulatory System**

## **Unit 3, Lesson 7**

# I. Purpose of the Circulatory System

- Provides food and oxygen to the cells of the body and filters waste materials from the body.

## II. Components of the Circulatory System

- a. Heart—hollow, muscular organ that pumps blood through the body.
- b. Lungs—elastic, spongy organs used in breathings; must be supplied with adequate blood.
- c. Kidneys—paired organ that removes waste from the blood.
- d. Arteries—Tubular vesicles that carry oxygenated blood from the heart to the rest of the body.

## II. Components of the Circulatory System, Con't.

- e. Aorta—principal artery that carries oxygenated blood to other smaller arteries in the body.
- f. Capillary—tiny blood vessels that connect veins to arteries.
- g. Valve—Closure on arteries and veins
- h. Red blood cells—oxygen-carrying components of the blood, most numerous blood cells
- i. White blood cells—make up 1% of the blood, attack foreign bodies in the blood

## II. Components of the Circulatory System, Con't.

- j. Platelets—sticky surfaces allow them to form structures to stop blood flow; a component of blood.
- k. Plasma—clear, yellowish liquid that forms the fluid portion of blood and lymph. Plasma transports red and white blood cells and platelets.
- l. Ventricle—either of the two lower chambers of the heart that receive blood from the upper chambers (**atria**) and pump it into the arteries by contraction of its thick, muscular walls.
- m. Veins—in anatomy, blood vessels that conduct the deoxygenated blood from the capillaries back to the heart.

# Passage of Blood in the Heart

- Heart rate - the rate at which the heart pumps blood through the heart.  
Upper right chamber - collects blood from the body.  
Lower right chamber - pumps blood to the lungs.  
Upper left chamber - receives blood from the lungs.  
Lower right chamber - pushes blood to the rest of the body.

Superior Vena Cava

Right Pulmonary Artery

Pulmonary Trunk

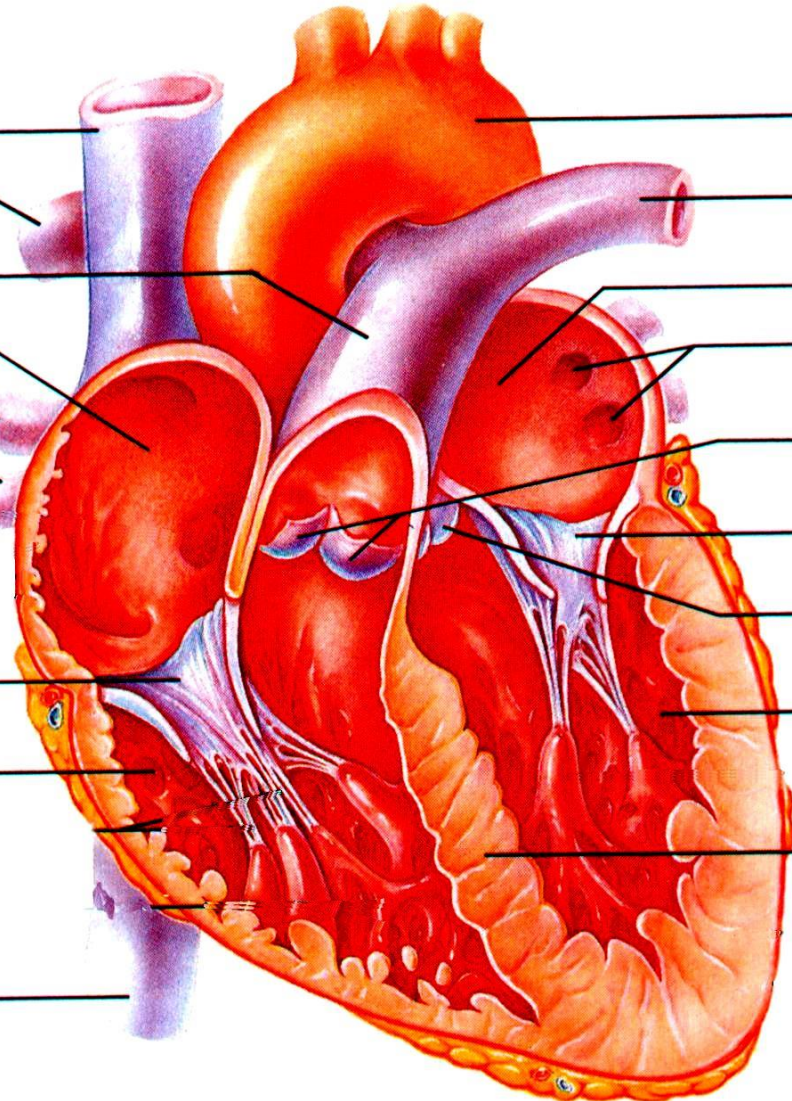
Right Atrium

Right Pulmonary Veins

Tricuspid Valve

Right Ventricle

Inferior Vena Cava



Aorta

Left Pulmonary Artery

Left Atrium

Left Pulmonary Veins

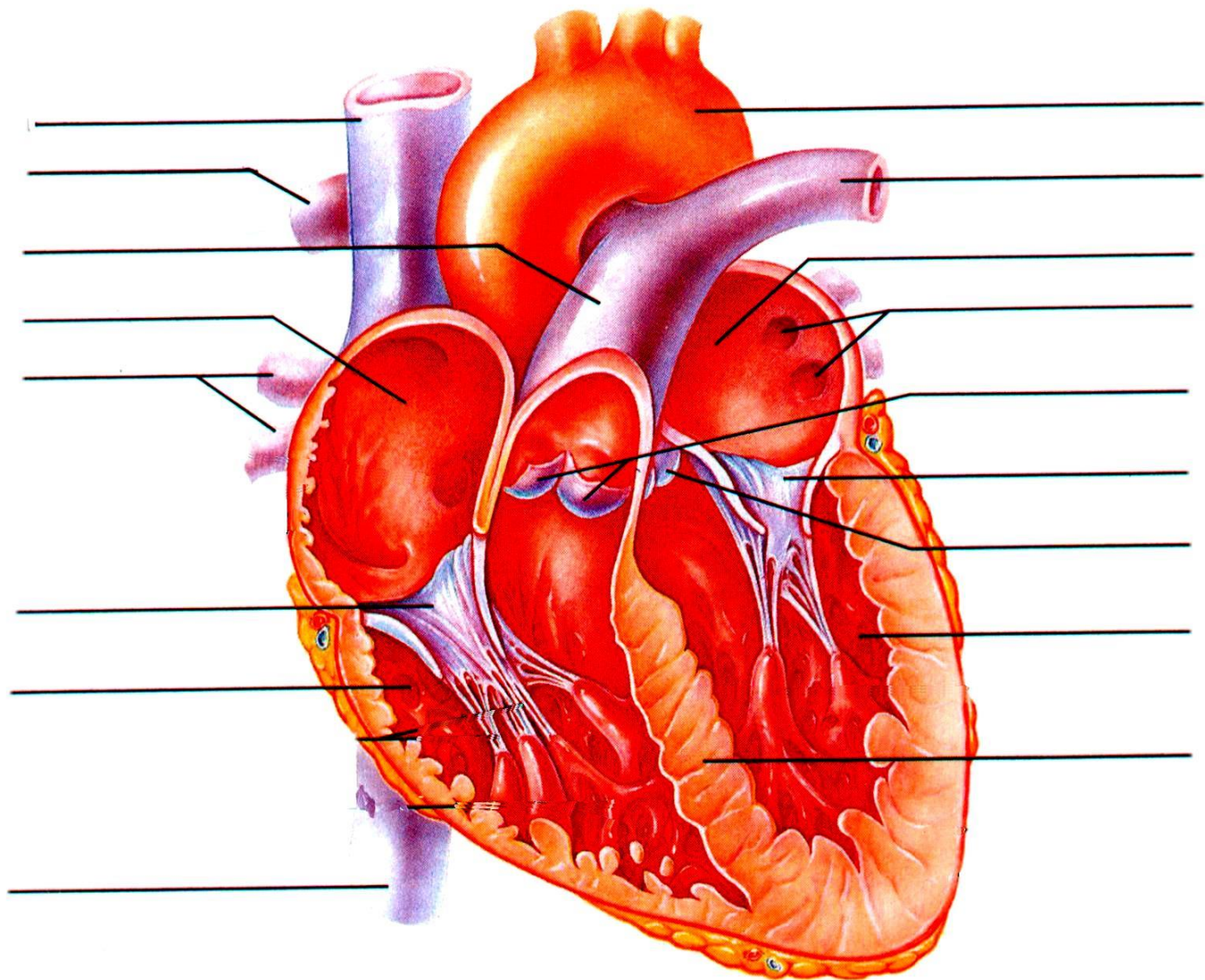
Pulmonary Semilunar Valve

Bicuspid Valve

Aortic Semilunar Valve

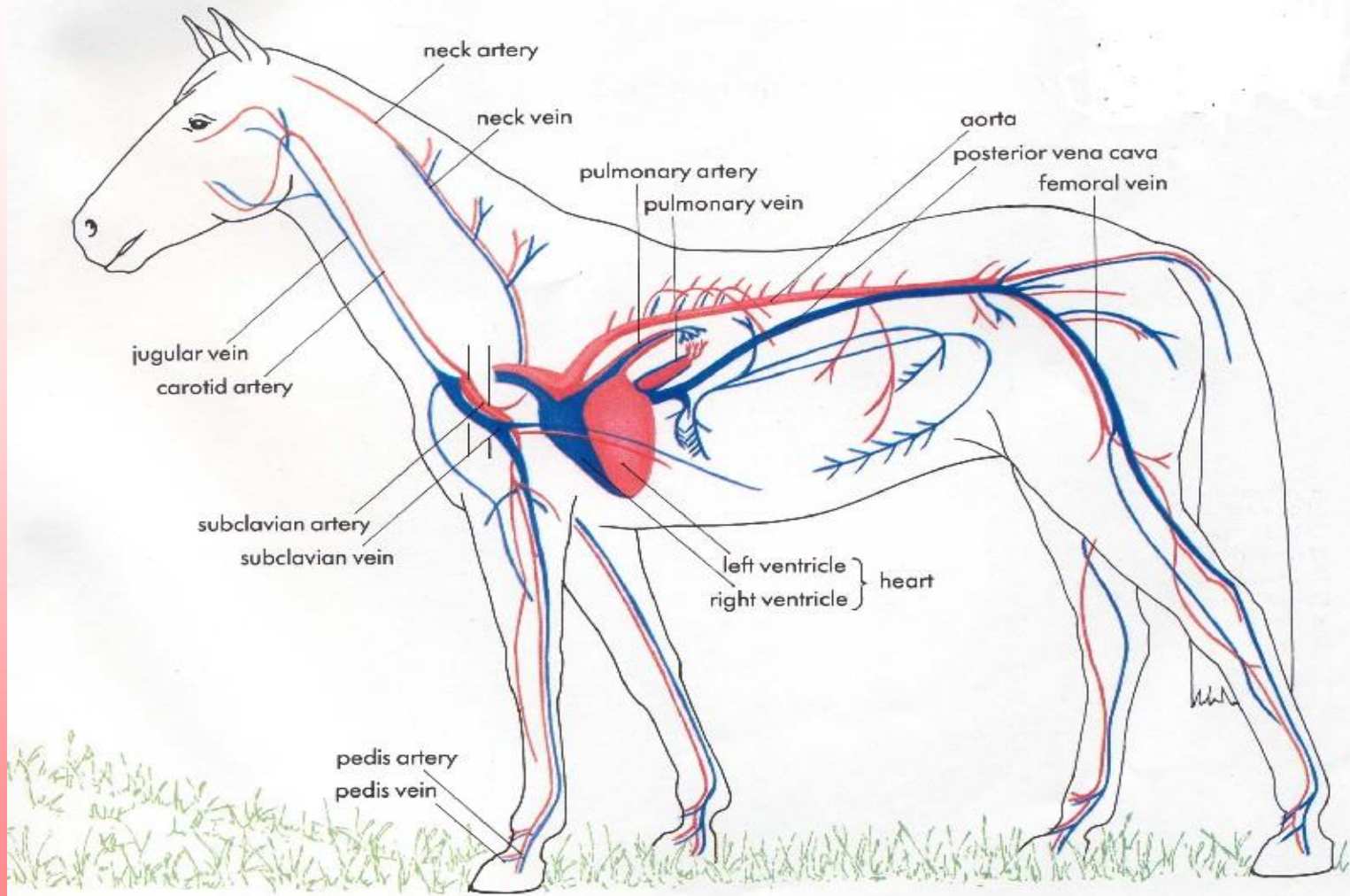
Left Ventricle

Interventricular Septum





# Veins and arteries



# Veins and arteries

