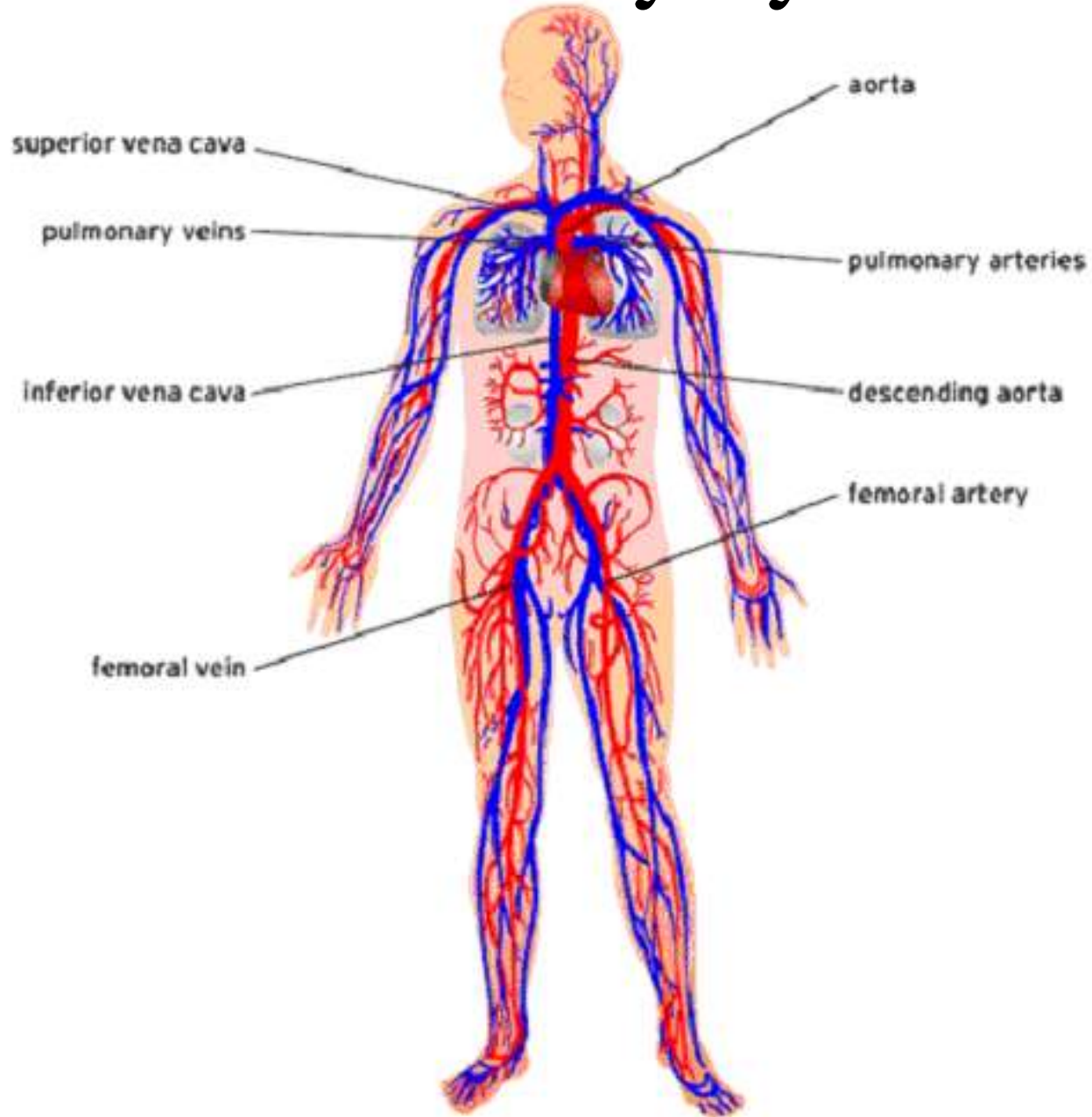
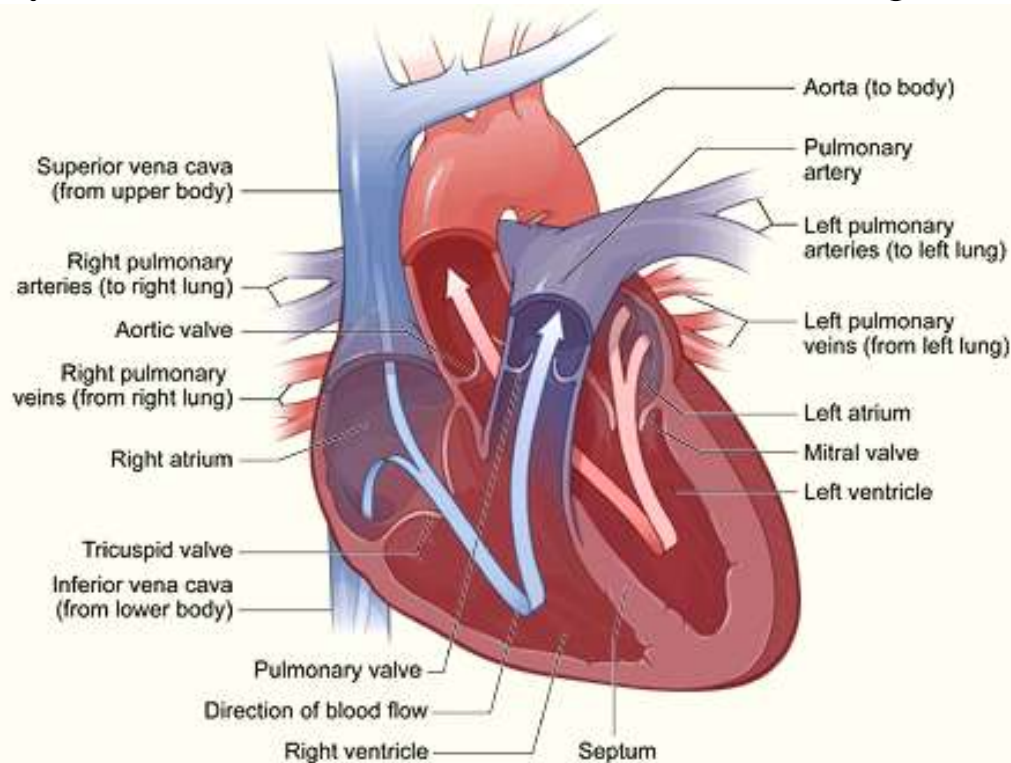


The Circulatory System



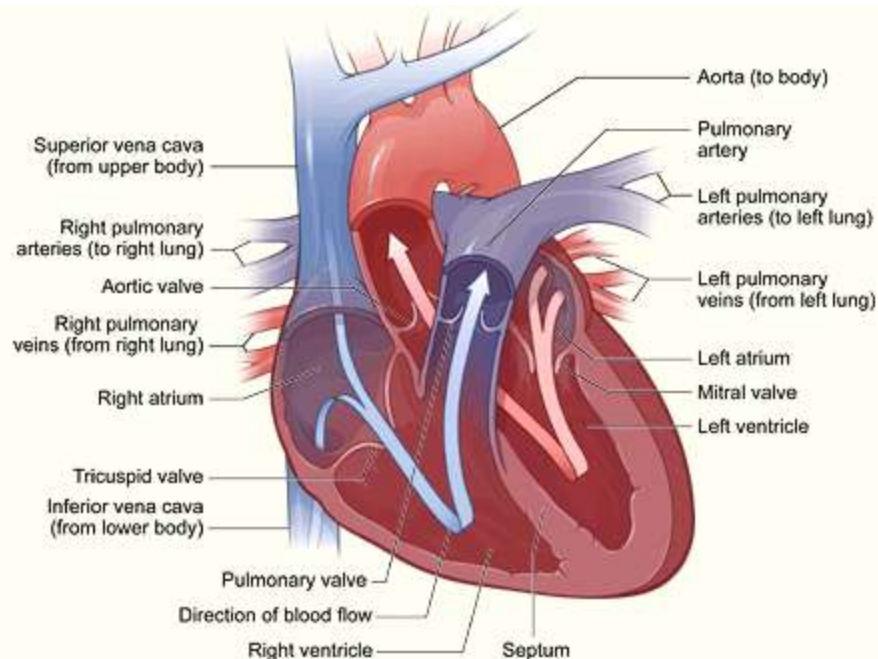
Heart

- Vena cava - blood comes into your heart
- Right Atrium - first chamber of the heart
- Tricuspid valve - The valve between the right atrium and right ventricle
- Right Ventricle - The very muscular chamber that pumps blood to the lungs
- Semi Lunar valve - The valve between the right ventricle and pulmonary artery that keeps blood from going back into the heart
- Pulmonary artery - takes blood from the heart to the lungs



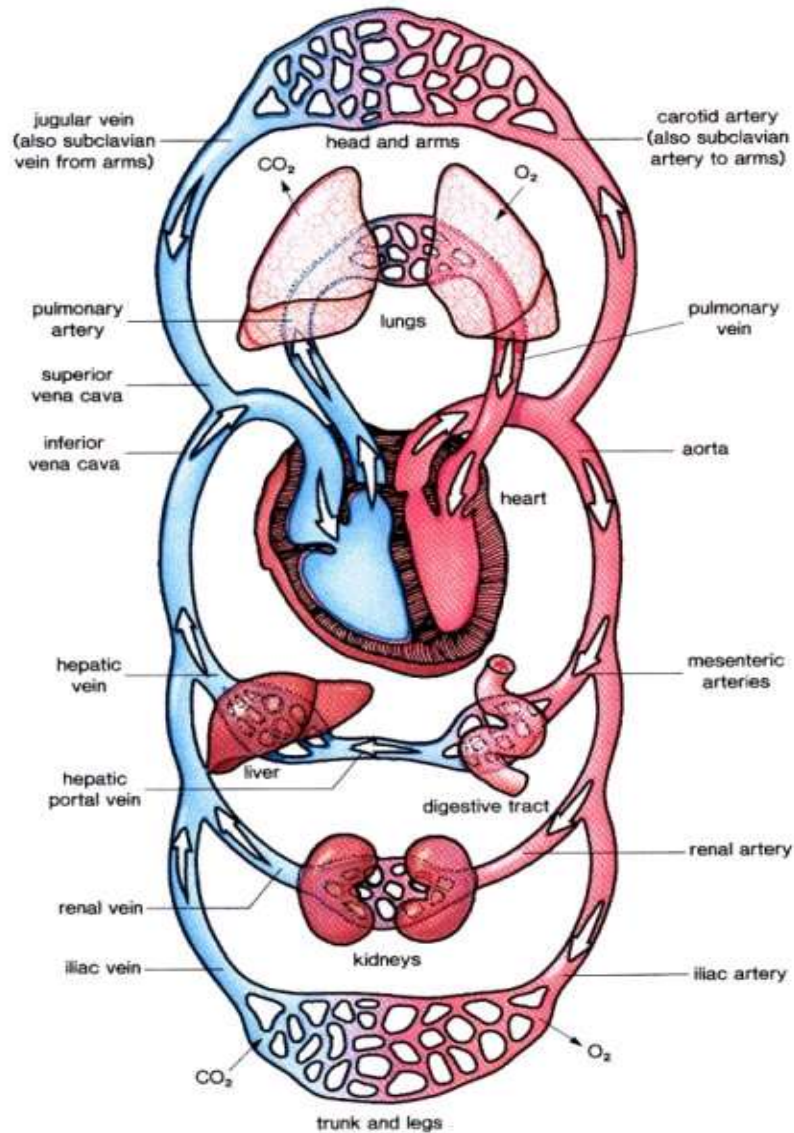
Heart

- Pulmonary vein - takes blood back to the left atrium of the heart
- Left atrium - the chamber that oxygenated blood enters when it returns to the lungs
- Bicuspid valve - The valve between the Left Atrium and Left Ventricle
- Left Ventricle - Muscular chamber that pushes blood through the body
- Semi lunar valve - The valve that keeps blood from going back into the left ventricle
- Aortic arch - the large major artery that all the other arteries in the body receive blood



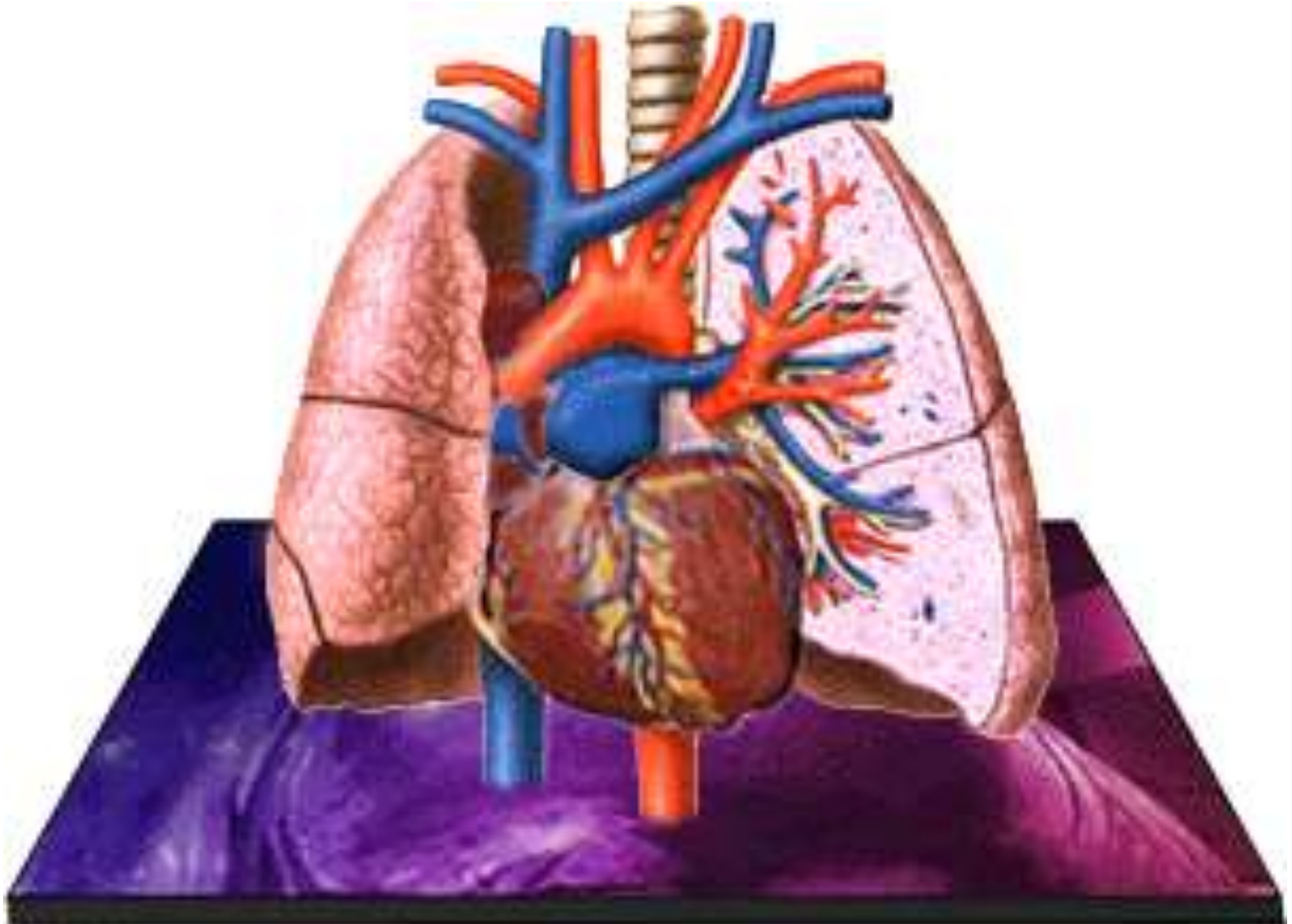
Circulation

- Cardiovascular - Heart and vessels



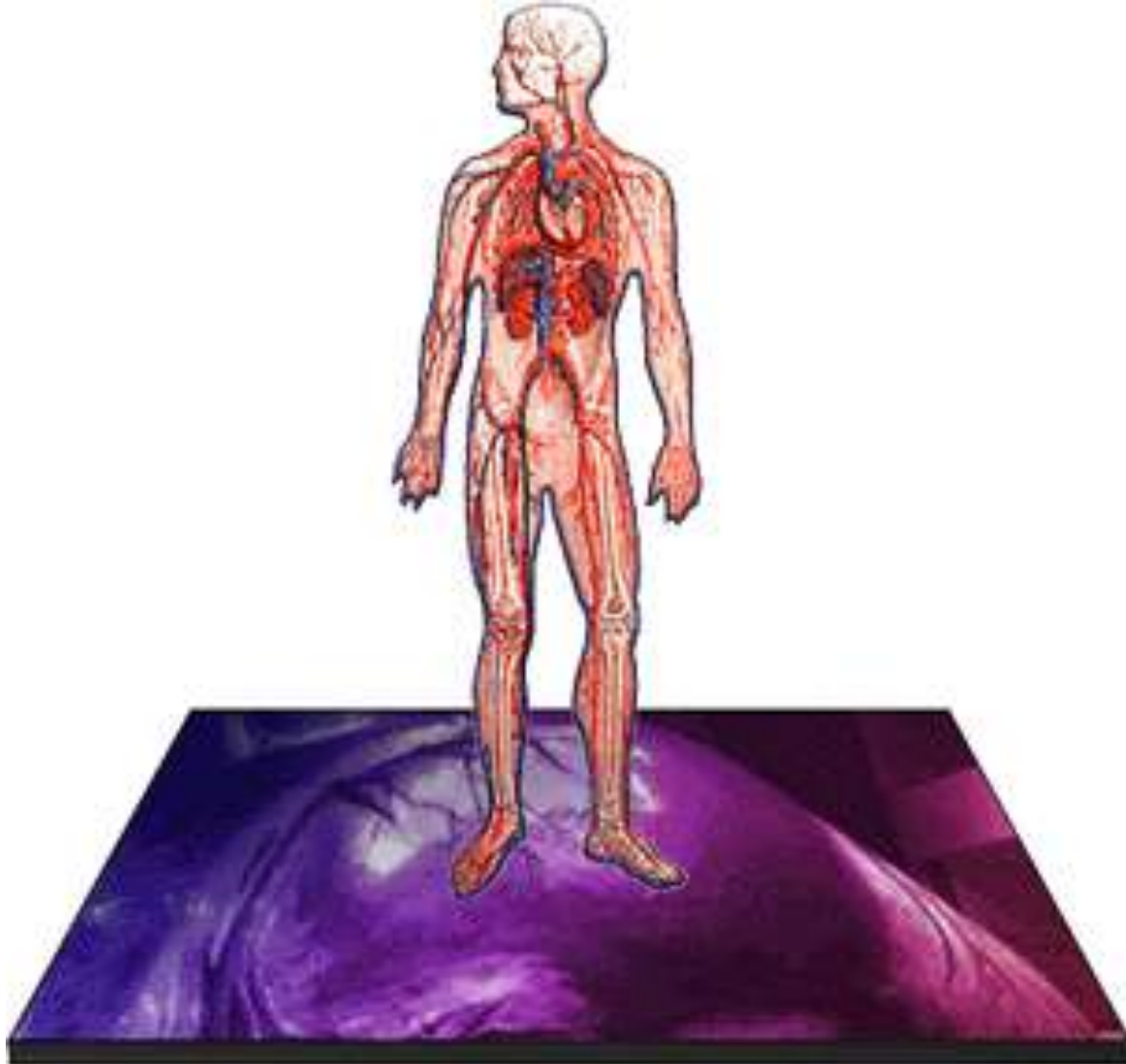
Pulmonary circulation -

- Circulation to the Lungs



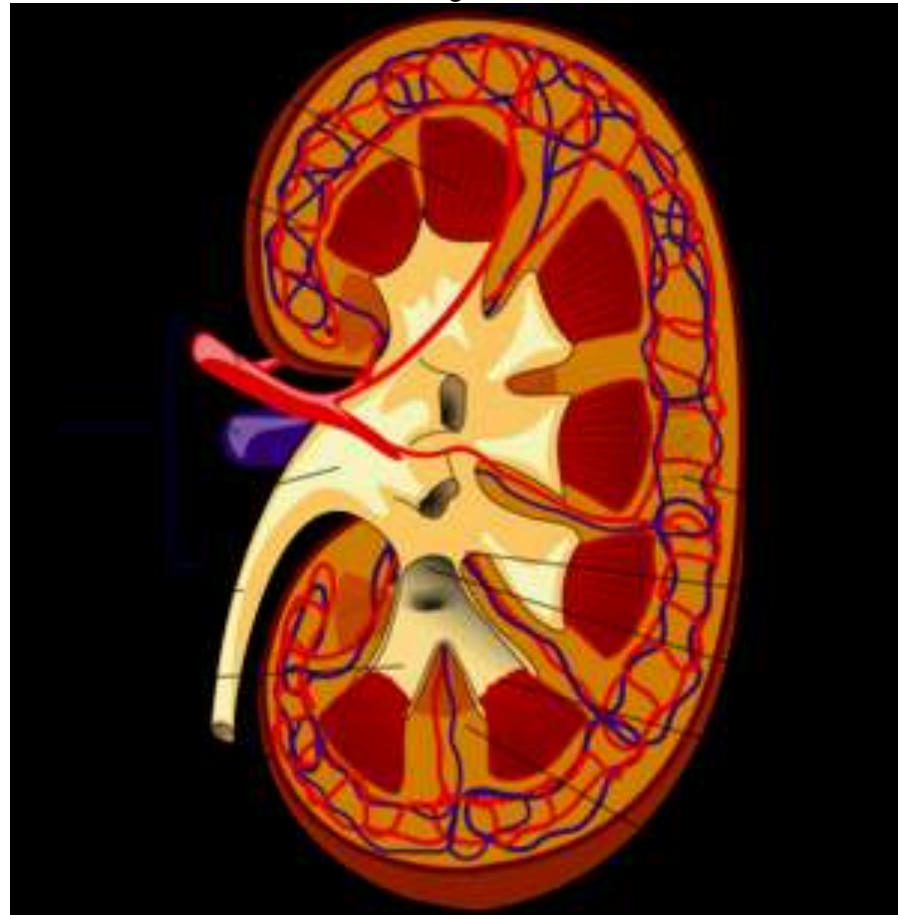
Systemic circulation –

- Circulation to the body



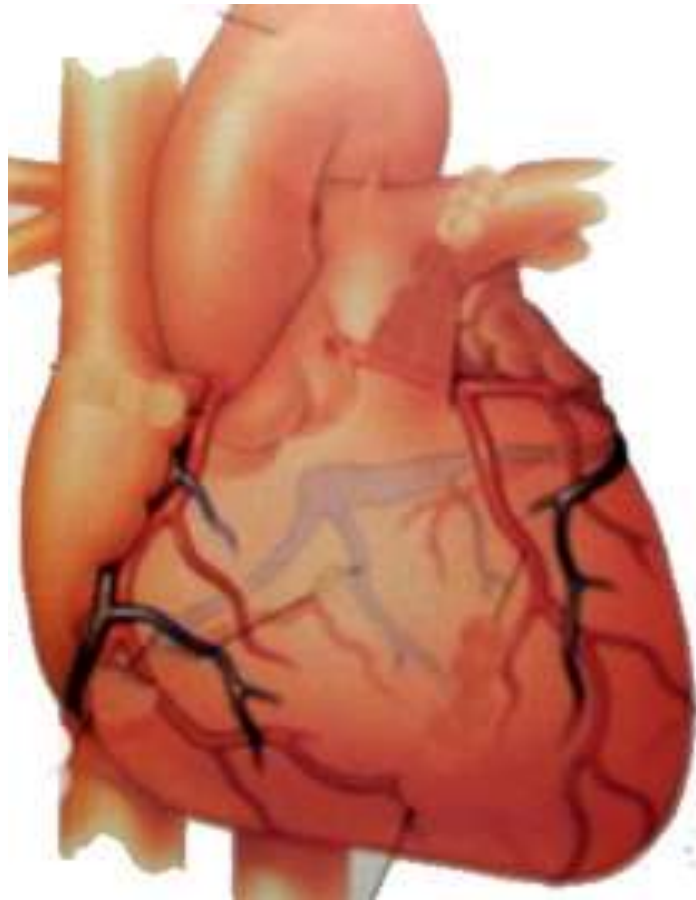
Renal circulation -

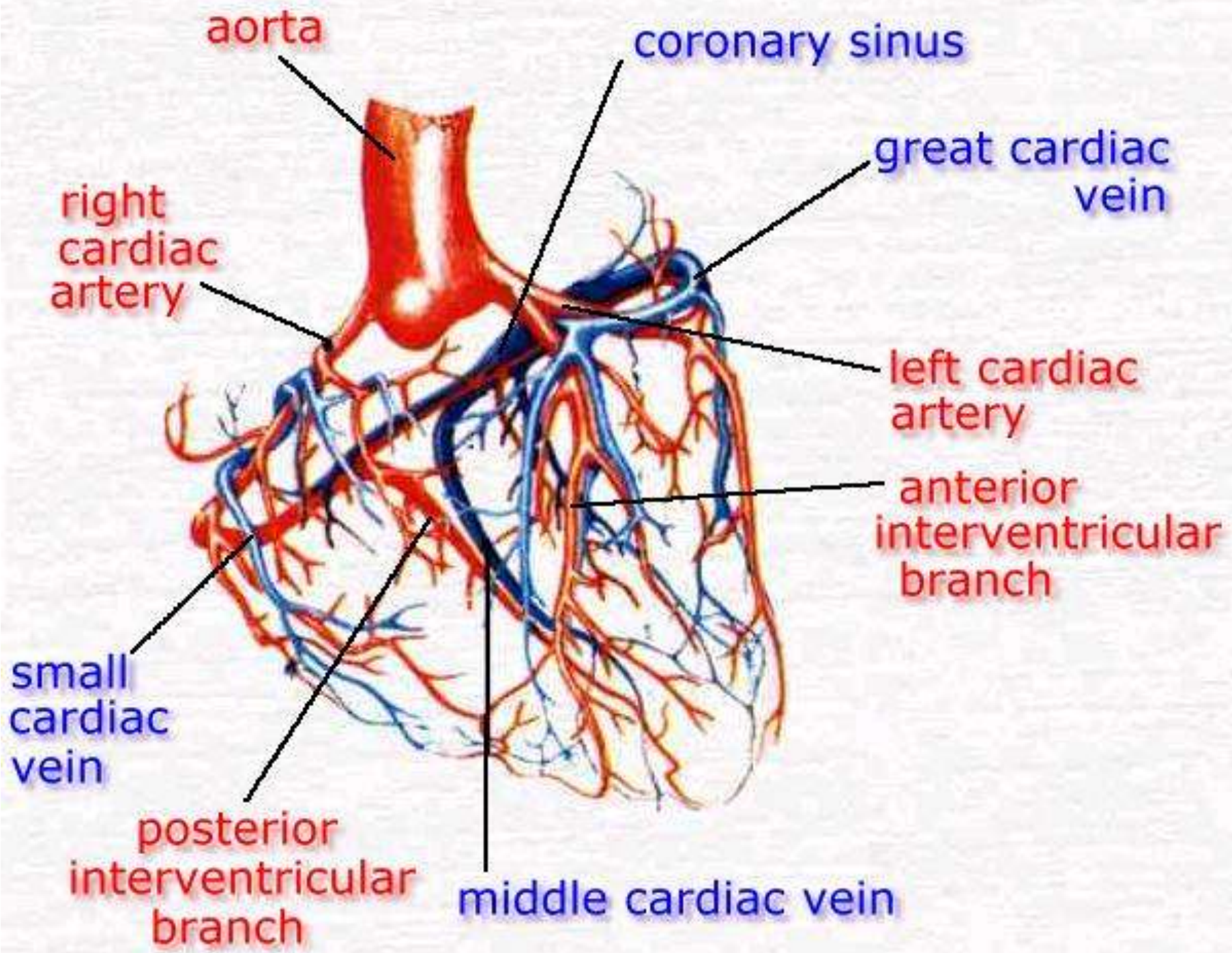
- Circulation to the kidneys



Coronary Circulation –

- Circulation to the heart





Blood Vessels

- Arteries carry blood away from the heart
- Capillaries are microscopic vessels that attach arteries to veins
- Veins take blood back to the heart

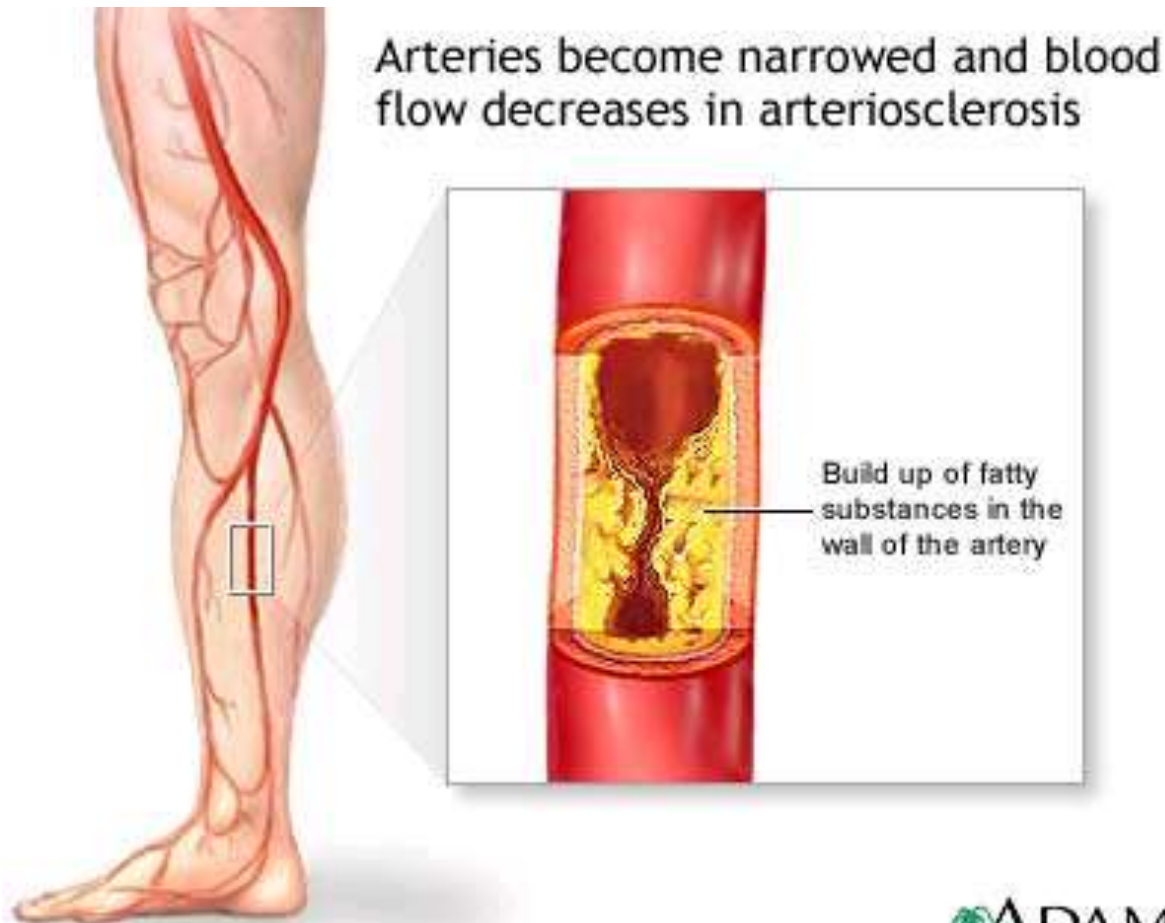
Blood Pressure

- The result of the heart contractions putting pressure on the arteries
- Systolic pressure is the pressure when the heart contracts and blood is forced in the arteries
- Diastolic pressure is the pressure in the arteries when the heart is relaxed.
- Control of the blood pressure is in the walls of the arteries.



Cardio Vascular disease.

- Arteriosclerosis - a condition caused by fatty deposits on the arterial walls
- Hypertension - increase in blood pressure










Blood

- Functions of Blood
 - Carries Oxygen and removes CO₂ from the blood
 - Carries waste to the kidneys
 - Transports nutrients
- About 8% of your body mass
- Parts of your blood
 - Plasma – liquid portion of the blood
 - Hematocrit portion of the blood
 - Red blood cells that carry oxygen
 - Hemoglobin is the protein in the blood that helps it to carry oxygen
 - White Blood cells fight off disease
 - Platelets are irregular shaped cell fragments that help clot the blood

Blood types

- A, B, AB, and O
- Type A
 - Antigen A
 - Antibody B
- Type B
 - Antigen B
 - Antibody A
- Type AB
 - Antigen A&B
 - No Antibodies
- Type O
 - No Antigens
 - Has Antibodies A&B

The ABO Blood System

Blood Type (genotype)	Type A (AA, AO)	Type B (BB, BO)	Type AB (AB)	Type O (OO)
Red Blood Cell Surface Proteins (phenotype)	 <p>A agglutinogens only</p>	 <p>B agglutinogens only</p>	 <p>A and B agglutinogens</p>	 <p>No agglutinogens</p>
Plasma Antibodies (phenotype)	 <p>b agglutinin only</p>	 <p>a agglutinin only</p>	<p>NONE.</p> <p>No agglutinin</p>	 <p>a and b agglutinin</p>

Transfusions

- Type A
 - Can receive A&O
 - Can Donate to A&AB
- Type B
 - Can receive B & O
 - Can Donate to B&AB
- Type AB
 - Can receive from all
 - Can Donate to AB
- Type O
 - Can receive for O
 - Can Donate to all

Rh Factor -

- Is the Rh protein in the blood
- Erithroblastosis fetalis

Blood disorders

- Anemia
- Leukemia
- Hemophilia
- Lymphatic System Page 644

The Lymphatic System –

- collects this fluid from body tissue spaces and returns it to the blood through a system of lymph capillaries and larger lymph vessels.
- Contains cells lymphocytes that help your body defend itself
- Lymphatic organs
 - Lymph Nodes – small structures through out the body that filter out microorganisms and foreign materials
 - Tonsils
 - Thymus
 - Spleen
- Diseases of the lymph system
 - HIV
 - Lymphoma