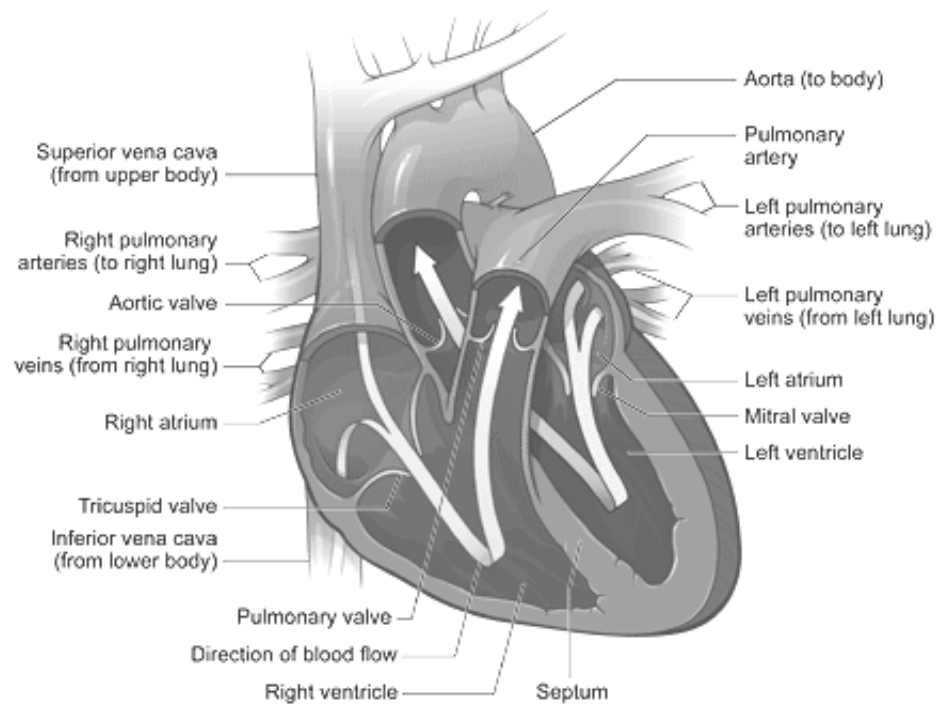


## The Circulatory System



### 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
- 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
- Portal circulation - Circulation to the digestive systems
- Coronary Circulation – Circulation to the heart

### Blood Vessels

- Arteries carry blood away from the heart
- Capillaries are microscopic vessels that attach arteries to
- 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 CO<sub>2</sub> 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

### 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