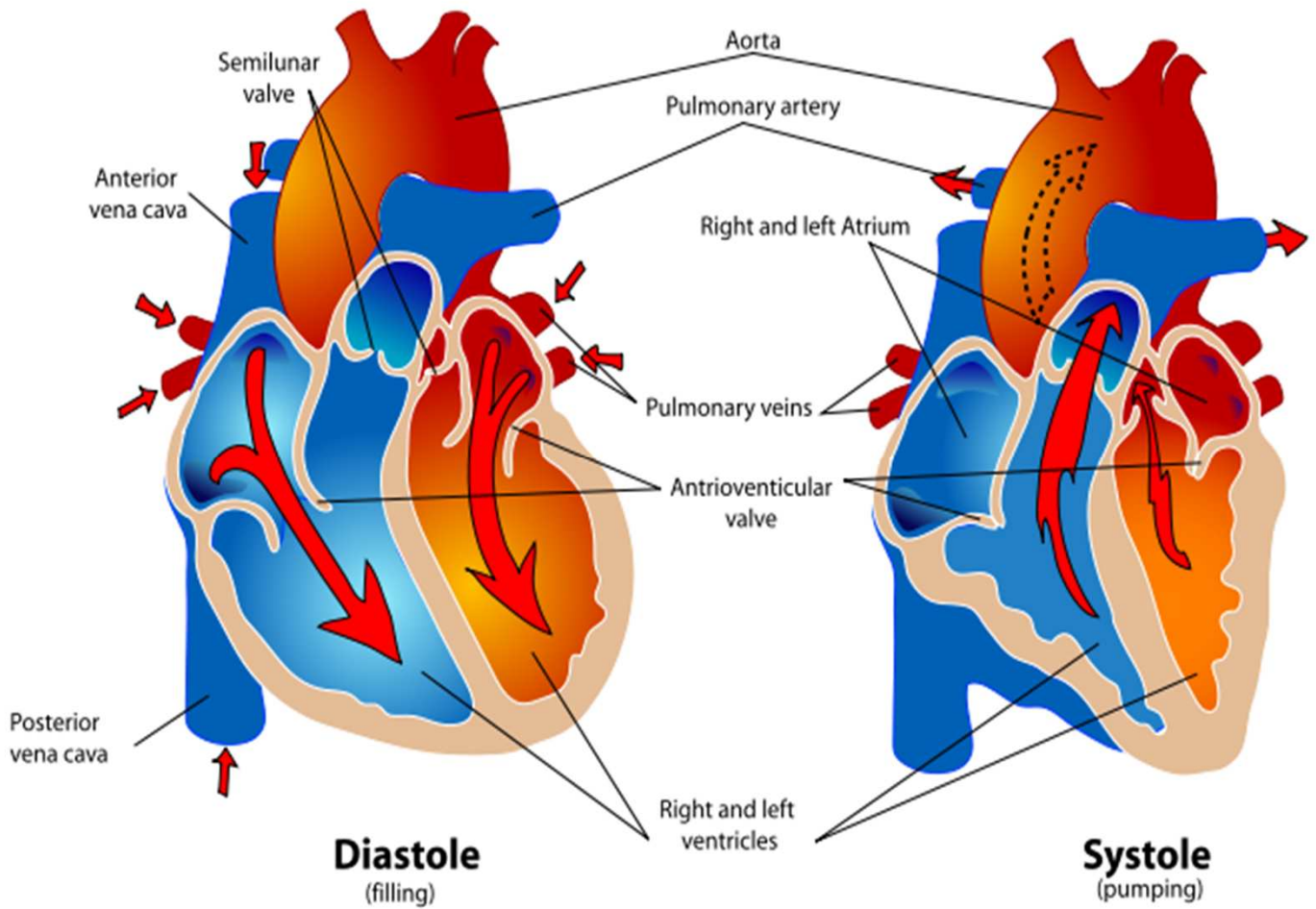
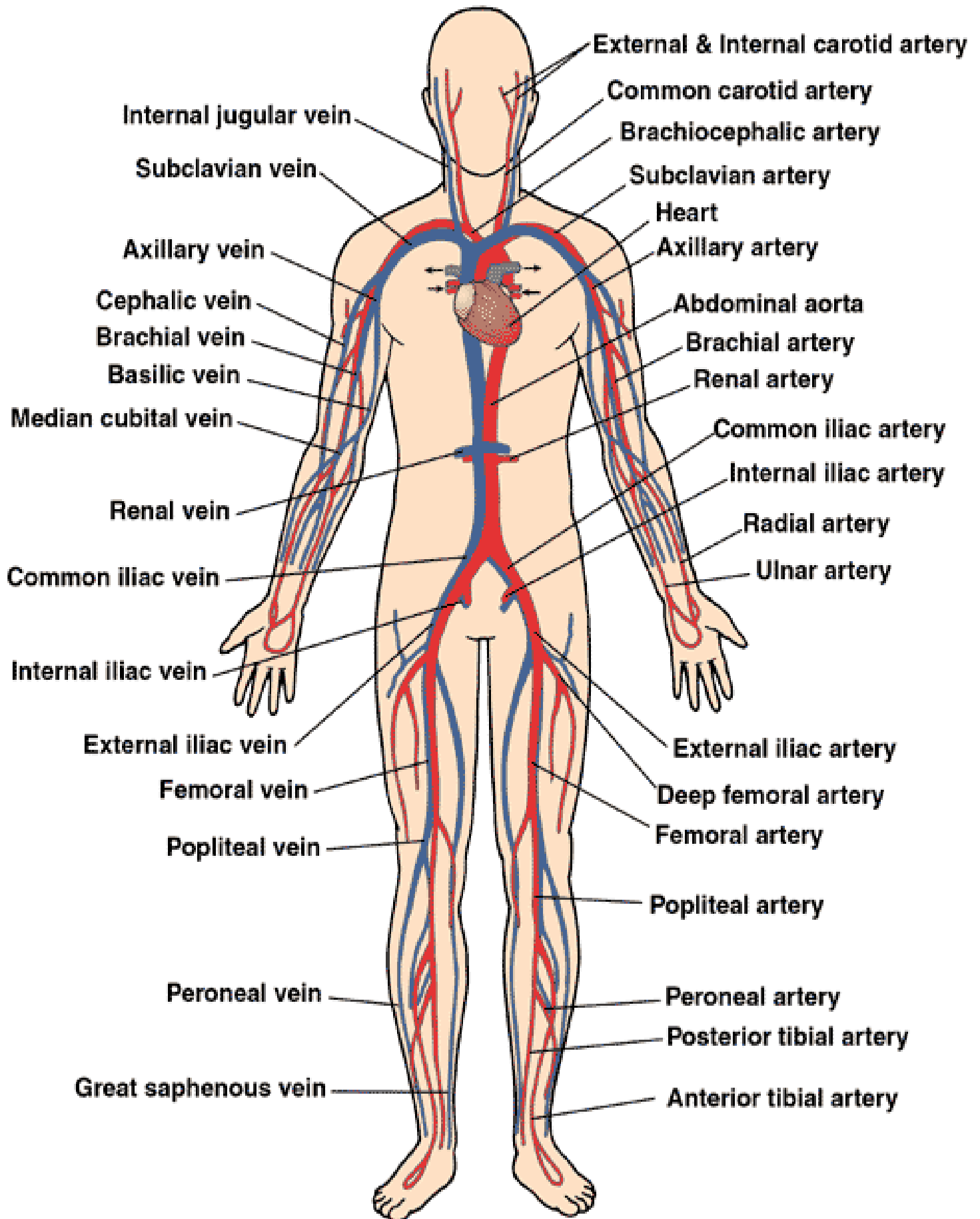


The Human Circulatory System

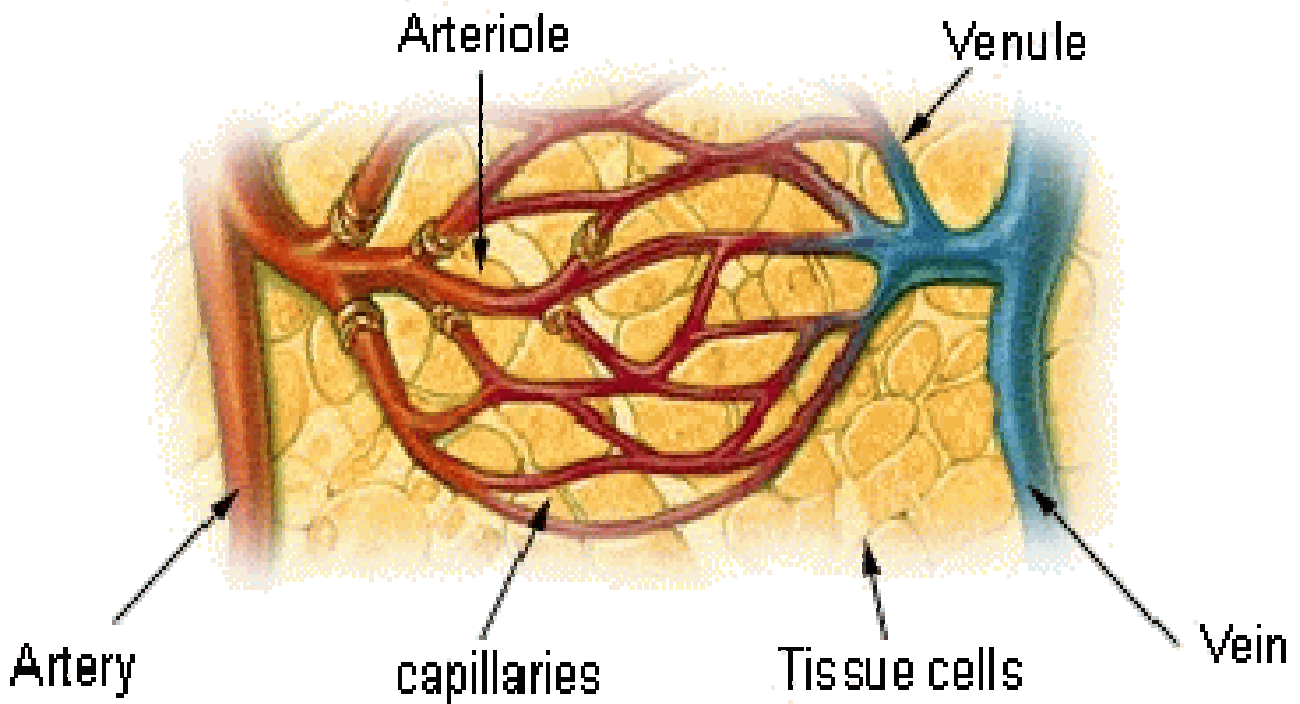
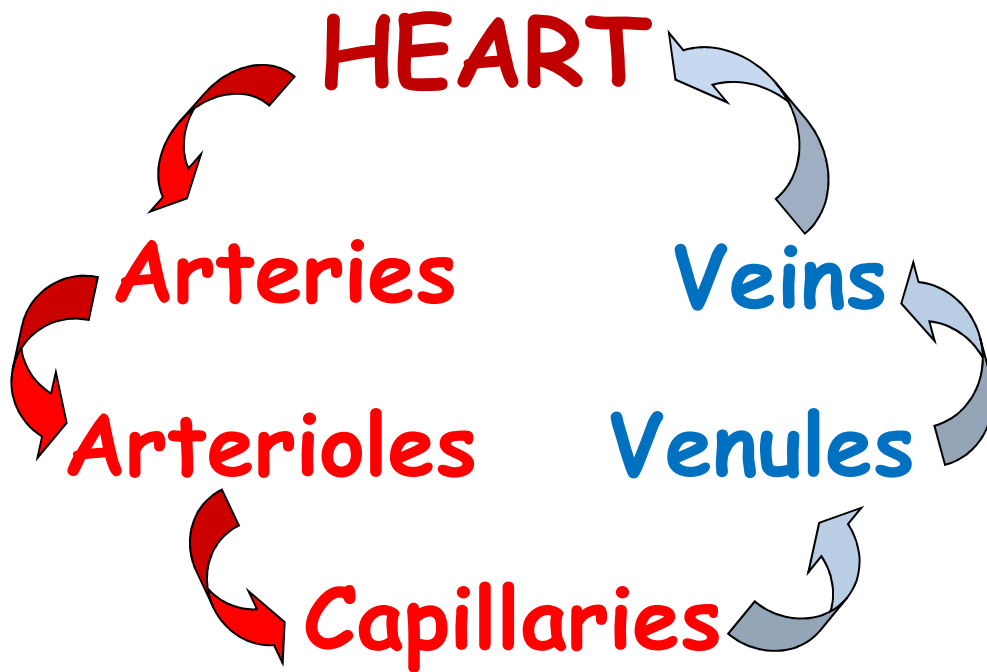
Heart



Circulatory System



Blood Vessels



Blood Vessels

- **Arteries**
 - Elastic, muscular walls
 - Keep blood under pressure
 - Nerve signals can make arteries constrict or dilate
- **Veins**
 - Thinner, less elastic, less muscle than arteries
 - Lower pressure than arteries
 - Valves and gravity aid flow back to the heart
- **Capillaries**
 - One cell thick
 - Where transfer of gases and nutrients takes place

Blood

- **Plasma (55% of whole blood)**
 - Water with dissolved substances
 - Proteins, sugars, amino acids, salts, hormones
 - Variations in concentration
 - Metabolic imbalances
 - Kidney problems
- **Cells (45% of whole blood)**
 - Erythrocytes (red blood cells)
 - Hemoglobin carries oxygen
 - Leukocytes (white blood cells)
 - fight infection
 - Platelets
 - Responsible of clot formation (coagulation)