

### Slides 14-30

#### Capillaries

- tiny microscopic blood vessels
- connect arteries to veins
- responsible for transferring oxygen & nutrients to cells
- very thin wall



#### Coronary arteries

- Hearts own system of blood vessels
- located around heart muscle to provide blood & oxygen to the whole heart
- Right coronary artery: feeds right atrium & ventricle and bottom of left ventricle
- Left main coronary artery: supplies blood to rest of heart

#### Blood

- Only tissue that flows throughout the body
- Carries oxygen & nutrients
- Transports waste back to lungs, kidneys & liver for disposal
- Essential to immune system
- Composed of plasma & billions of cells

#### Plasma

- Yellow ish liquid part of blood
- way for cells to move
- Makes up 55% of total volume
- Carries blood, nutrients, waste, hormones and clotting proteins

#### Blood- RBCs & hemoglobin

- Red blood cells (erythrocytes)
- Major job for transporting oxygen
- Hemoglobin: picks up oxygen in areas where O<sub>2</sub> is abundant and releases O<sub>2</sub> where its the lowest

#### Blood- white blood cells

- Able to change according to need & situation
- Can leave bloodstream to attack invaders

#### Blood-platelets

- Clotting agents
- Releases substance to clot blood in needed situations

#### Hearts conduction system

- Regulates electrical system

- Pumping of heart
- Impulse from SA to atria
- AV node

#### **Flow of blood through the heart**

1. superior / inferior vena cava
2. Right atrium
3. Tricuspid valve
4. Right ventricle
5. Semi lunar valve/ pulmonary
6. Pulmonary artery
7. lung