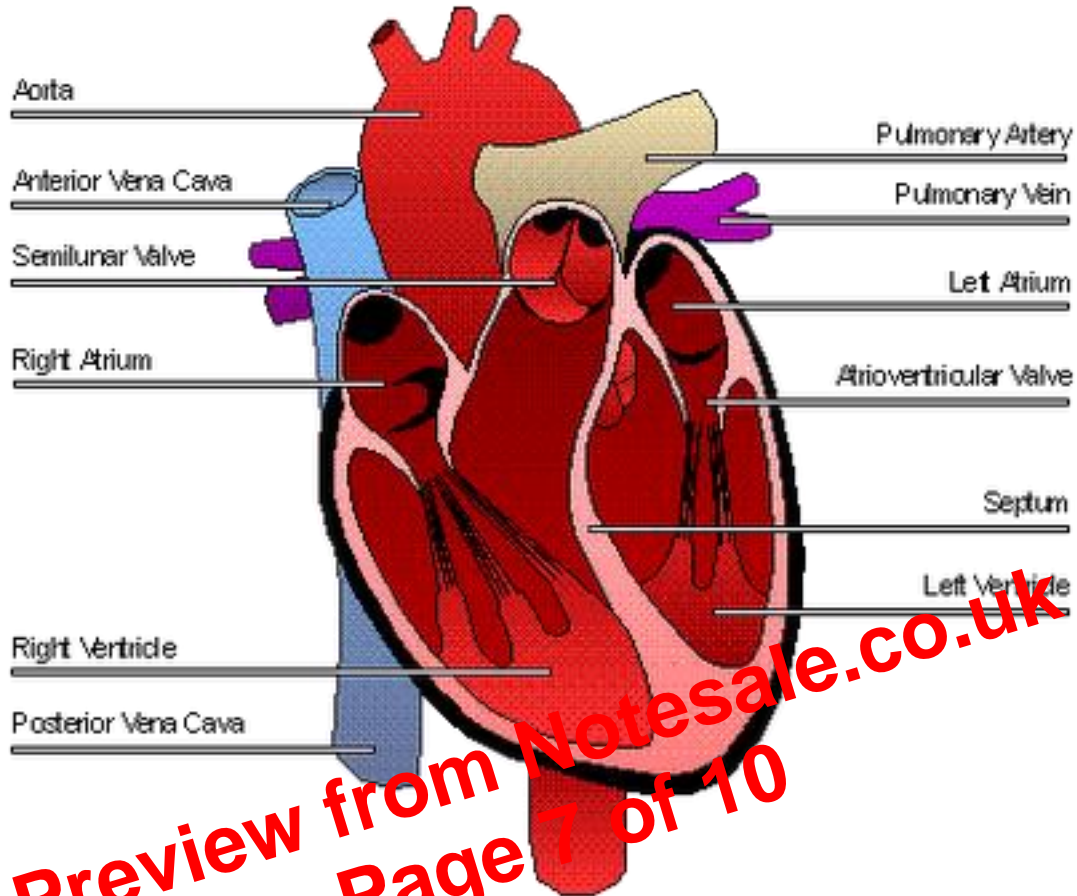


- **PULMONARY CIRCULATION** = to & from lungs – receives DEOXYGENATED blood returned from systemic circulation
- **SYSTEMIC CIRCULATION** = to & from all other organs, including heart muscles – receives OXYGENATED blood returned from pulmonary circulation

## Heart Structure



- **Oxygenated blood** flows into LEFT SIDE of heart through pulmonary veins from lungs & out through aorta
- **Deoxygenated blood** flows into RIGHT SIDE of heart through vena cava & out in pulmonary arteries

### - Atherosclerosis

= Development of fatty tissue called **atheroma** in the artery wall adjacent to the endothelium

- **How it develops:**
  - 1) Low density lipoproteins (LDL) containing fats & cholesterol accumulate
  - 2) Phagocytes are then attracted by signals from endothelium cells & smooth muscle
  - 3) Phagocytes engulf fats & cholesterol by endocytosis & grow large
  - 4) Smooth muscle cells migrate to form a tough cap over the atheroma
  - 5) Artery wall bulges into lumen = narrows it & thus impeding blood flow
- **CORONARY OCCLUSION** = narrowing of arteries that supply blood containing O<sub>2</sub> & nutrients to the heart muscle