

The Cardiovascular System



Combining Form	Meaning	Combining Form	Meaning
Cyan/o	blue	My/o	muscle
Coagul/o	Coagulation; clotting	thromb/o	clot
Coron/o	heart	vas/o	vessel; duct
cardi/o	heart	Ather/o	Plaque; buildup
phleb/o	vein		
Electr/o	electricity		

Prefix	Meaning
brady-	slow
Anti-	against
endo-	in; within
Hyper-	above
Hypo-	below
tachy-	fast

Suffix	Meaning
-itis	inflammation
-tension	pressure
-sclerosis	Hardening; thickening
-pathy	disease

What are the meanings of the following word parts?

- *coagul/o*

coagulation

- *Cardi/o*

heart

- *hyper-*

above

- *Thromb/o-*

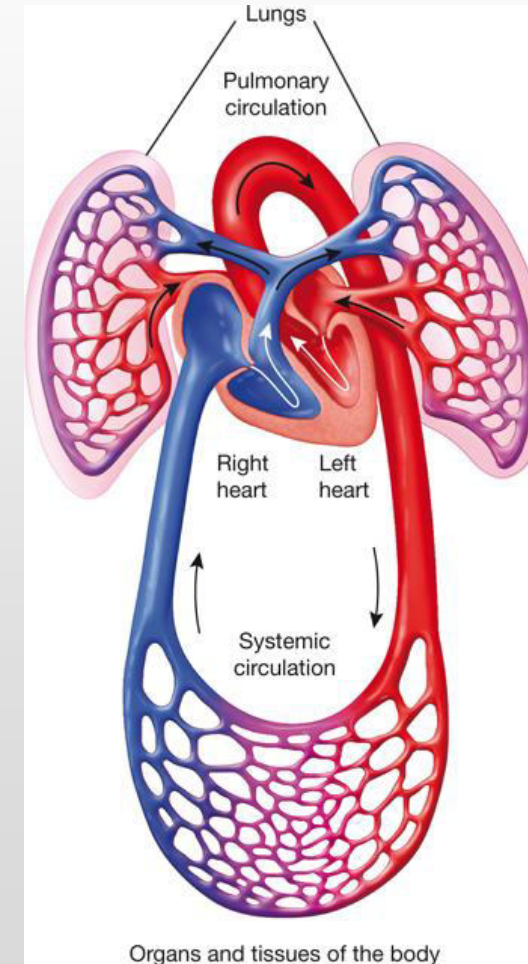


Functions of the Cardiovascular System

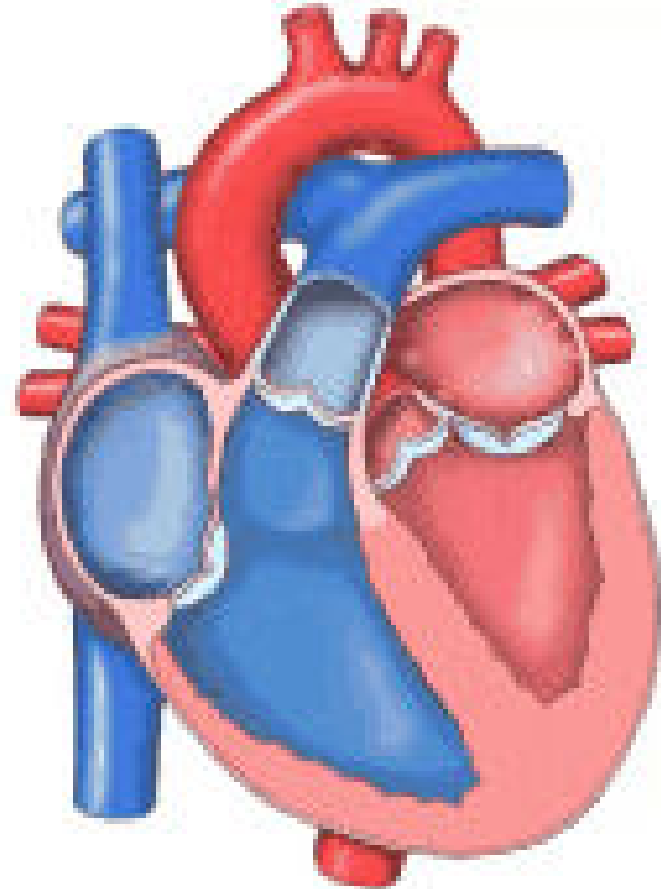
- Circulate oxygen throughout the body
- Defend against infection
- Protect the body during injury

The Heart

- **Artery-** carry oxygenated blood *away from the heart*
- **Veins-** carry deoxygenated blood *to the heart*



- The “heartbeat” is really the sound of the valves in the heart closing as they push blood through the chambers of the heart. These valves make the “lub-DUB” sound.
- About **six quarts** of blood circulate through the heart and blood vessels more than 1,000 times a day.



Blood Pressure

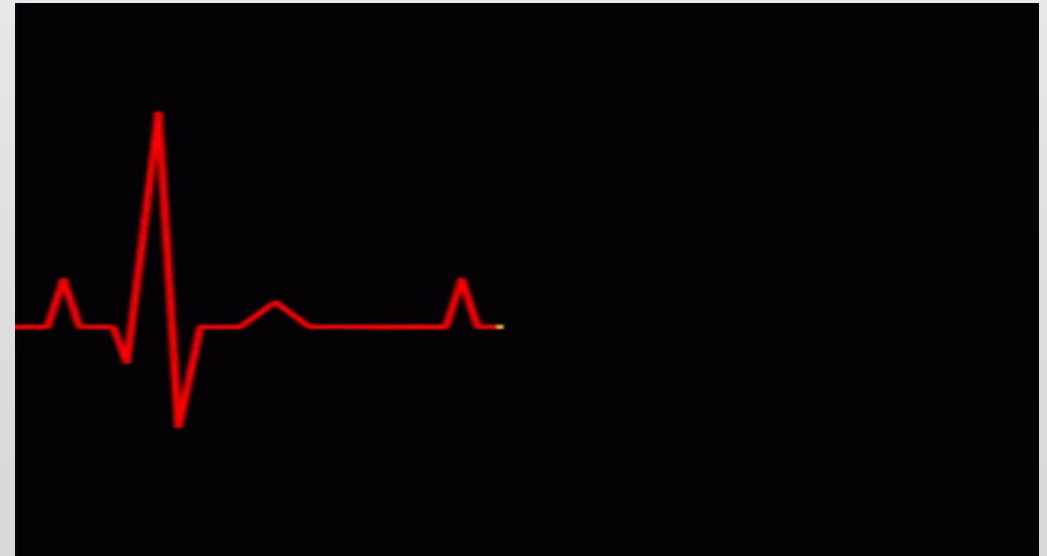
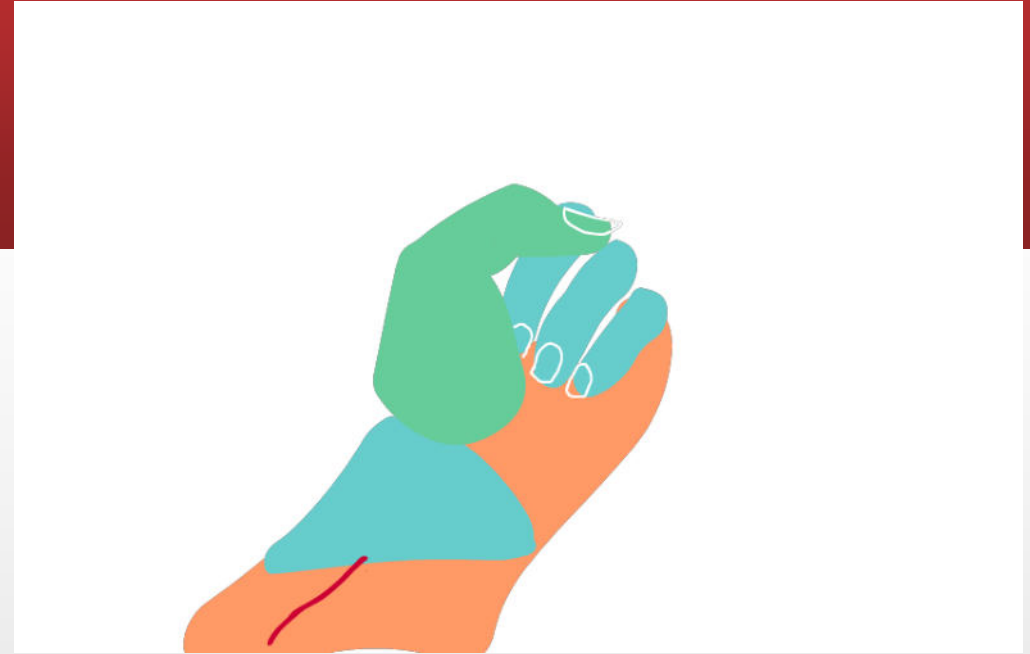
systolic → 120
diastolic → 74 mmHg



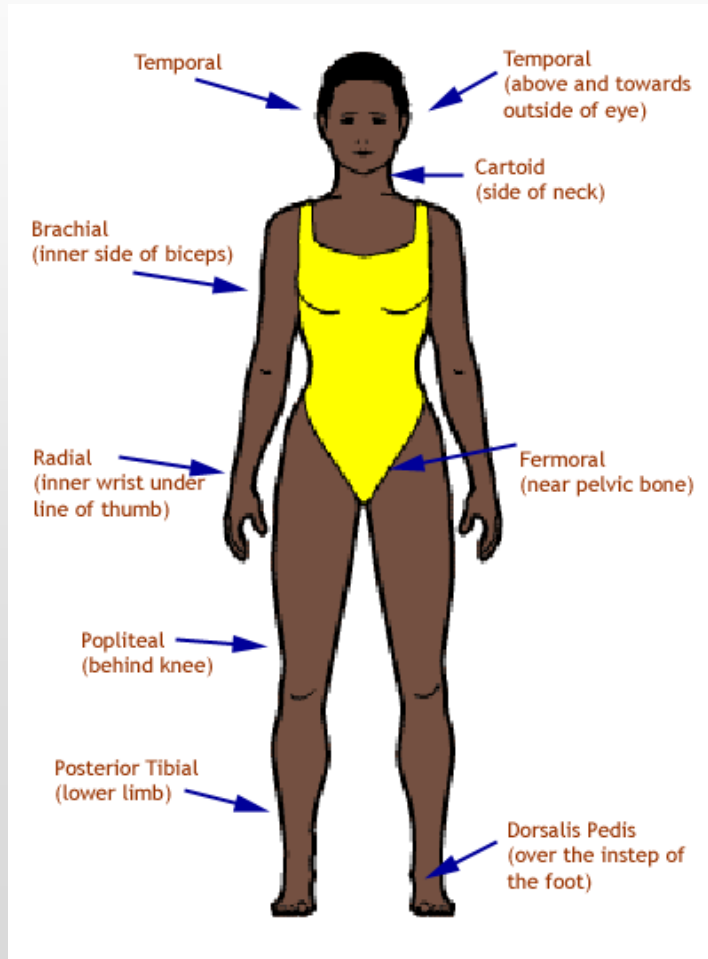
- Is the pressure exerted by the blood against the wall of an artery or vein
- **Systolic**- measurement of blood pressure while the heart ventricles are contracting
- **Diastolic**- measurement of the blood pressure between heartbeats. Or, when the hearts is “resting”
- **Systolic** range is 90-120
- **Diastolic** range is 60-80
- *Hyper & hypotension- high & low blood pressure*

Pulse

- The rhythmic throbbing generated by contraction to the heart detected over major arteries of the body aka the heartbeat
- Range **60-100**.



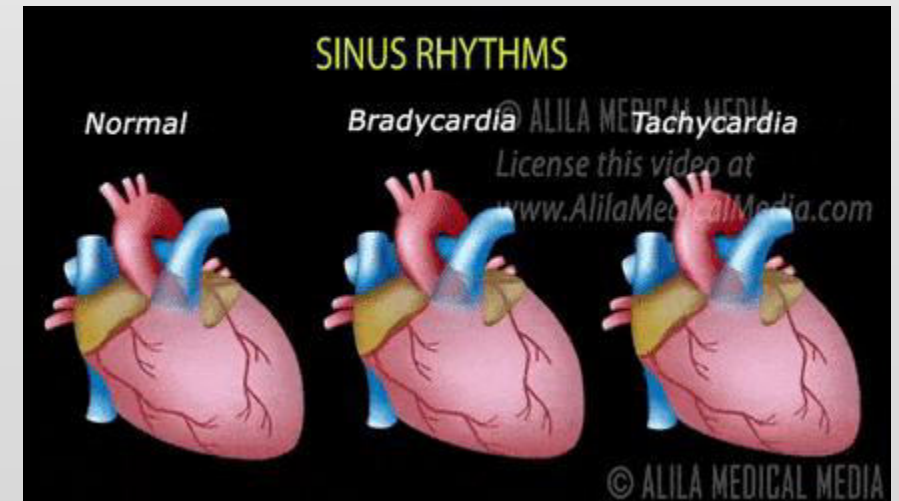
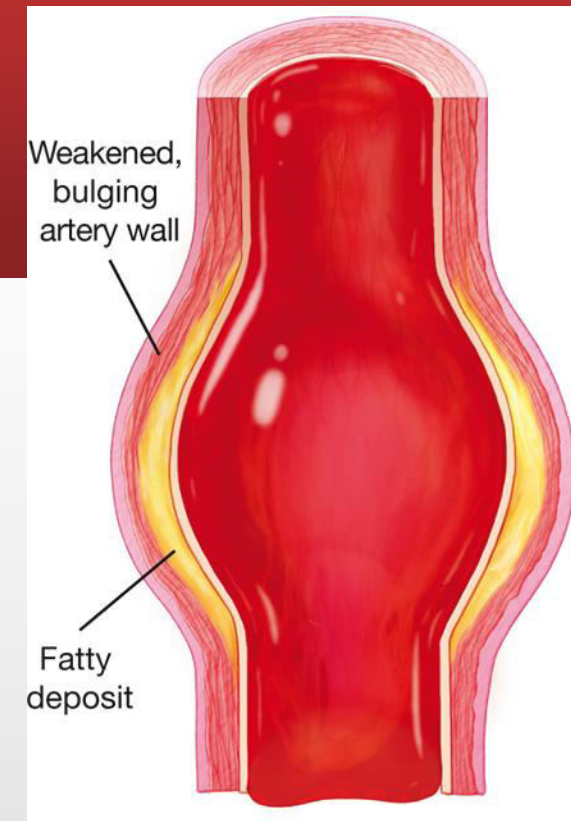
Pulse Points



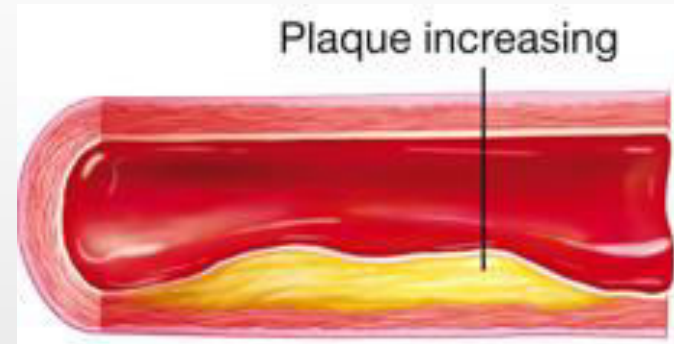
- Check the *temporal, radial, and carotid*. Which was easier to check? Write this on your paper.

Diseases and Conditions

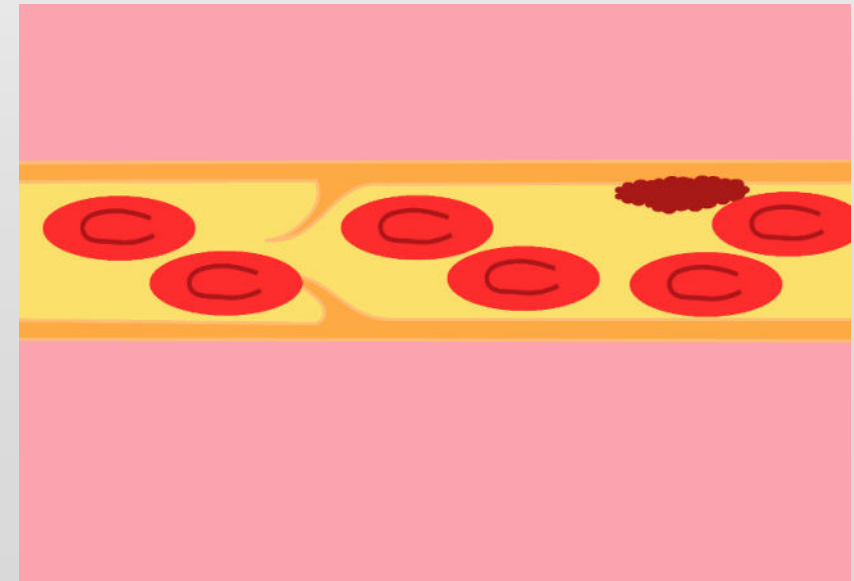
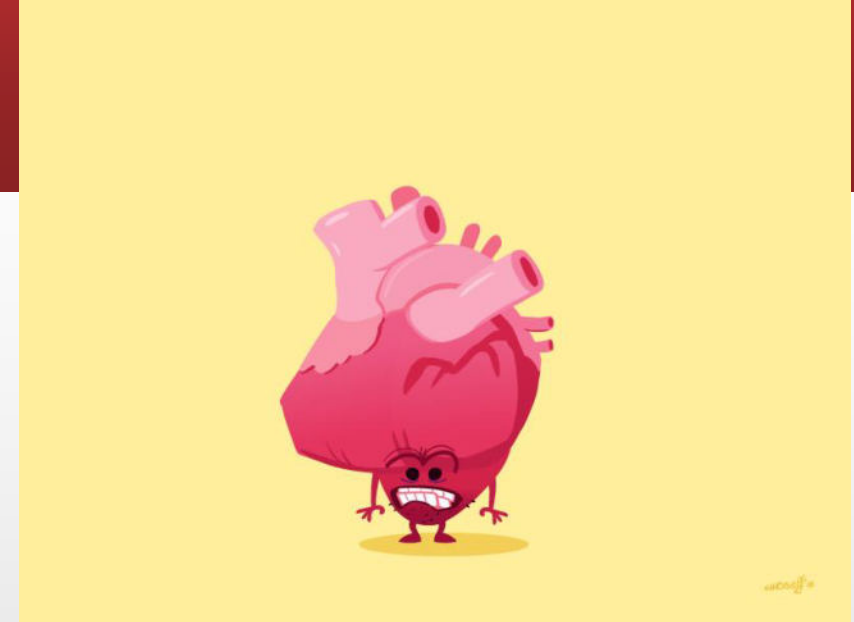
- **Aneurysm**- localized, balloon-like dilation of blood vessel, usually an artery.
- **Arrhythmia**- irregular heartbeat
- **Bradycardia**- slow heart rate
- **Tachycardia**- fast heart rate



- **Atherosclerosis**- plaque buildup in the arteries
- **Congestive heart failure**- occurs when the heart grows too weak or still to pump enough blood
- **Cyanosis**- bluish or purplish discoloration of the skin. Not enough oxygen rich blood.
- **Endocarditis**- inflammation of the inner layer of the heart muscle



- **Heart murmur**- abnormal sound while listening to the heart. Most heart murmurs are harmless
- **Myocardial infarction (MI)** - tissue death in the heart. **HEART ATTACK**
- **Thrombus**- blood clot.
 - Anticoagulant- meds used to prevent blood clot
- **FUN FACT**- controlling stress can help prevent heart disease. Stress management is just as important as a healthful diet and exercise.



Diagnostic test and procedures

- **Electrocardiogram (ECG or EKG)-** record of the electrical activity of the heart. Most common
- **Exercise stress test-** evaluating a patient's cardiovascular fitness during exercise.
- **Cardioversion-** controlled electrical shocks are given. Hospital setting



- **Heart transplant-** living heart from person to person
- **Pacemaker-** electrical device in chest used to control cardiac rhythm.

