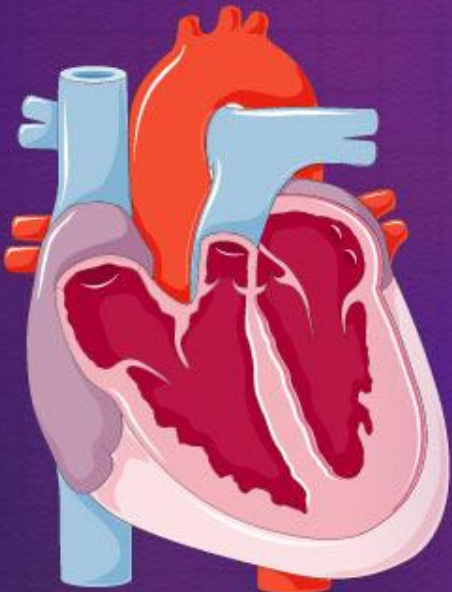



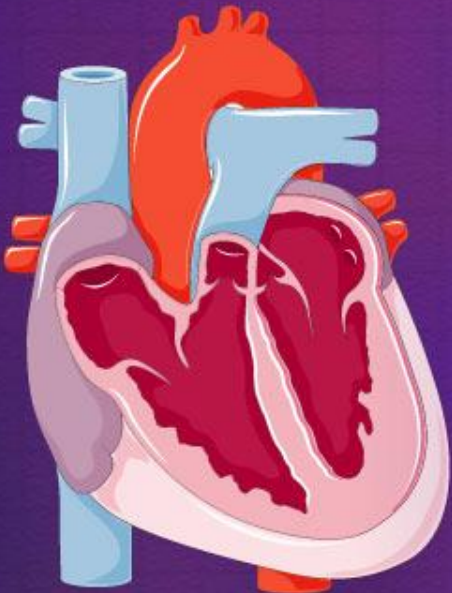
## Warm-Up: 10/16/14

- Calculate and interpret the following pulse pressure:
  - 120/80
  - 143/94
  - 110/56
- Interpret the following B/P readings as WNL, prehyper-, hyper-, or hypo-.
  - 136/92
  - 98/48
  - 158/110
  - 106/64



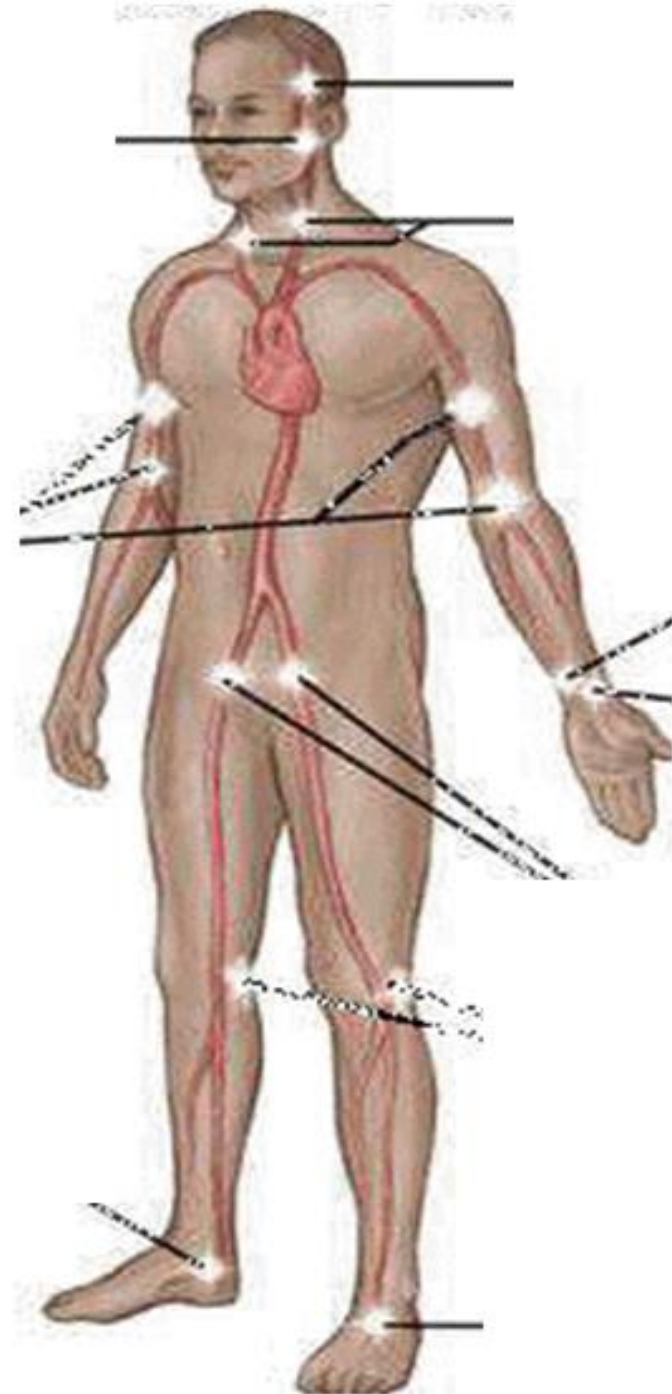
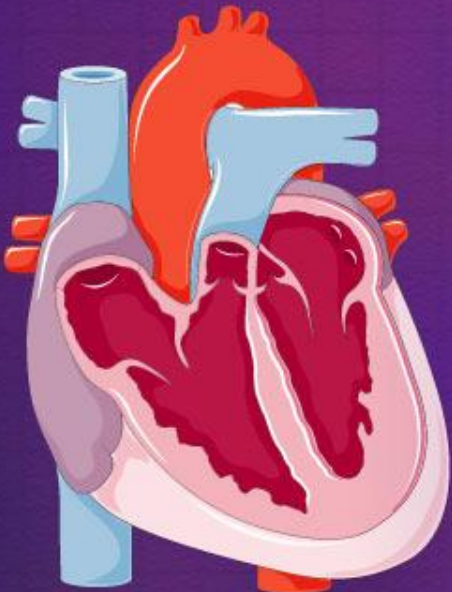
# 3. Pulse

- **Def:** P of the bld felt against the wall of the artery as the contracts & relaxes. 



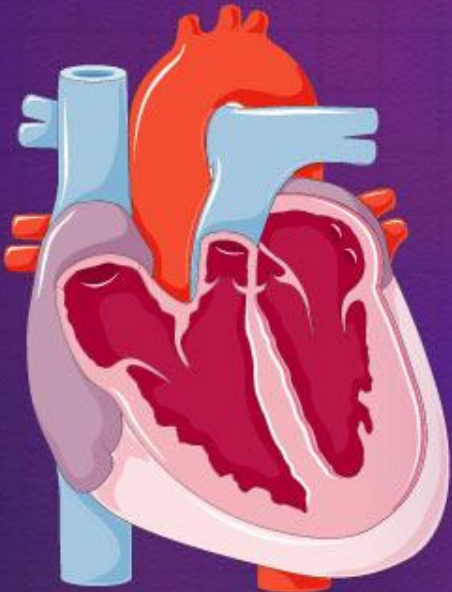
# Pulse Sites

- Can be taken in 7 areas:
  - Radial\*
  - Temporal
  - Dorsalis pedis
  - Carotid\*
  - Brachial
  - Popliteal
  - Femoral



# Pulse Characteristics

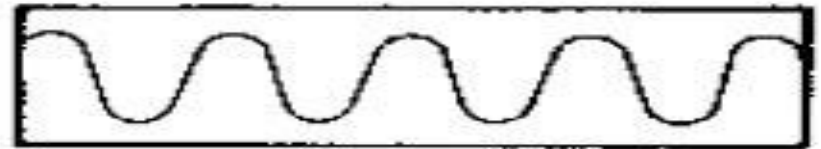
- Volume:
  - Bounding (strong)
  - Thready (weak)
- Rate:
  - 60-90 bpm
  - Children  $> 7$  y/o = 70-90 bpm
  - Children  $< 7$  y/o = 80-110
  - 1 y/o  $> =$  100-160 bpm
  - Bradycardia =  $< 60$  bpm
  - Tachycardia =  $> 100$  bpm
- Rhythm
  - Regular or irregular
  - Arrhythmia: irregular/abnormal caused by electrical conduction problem



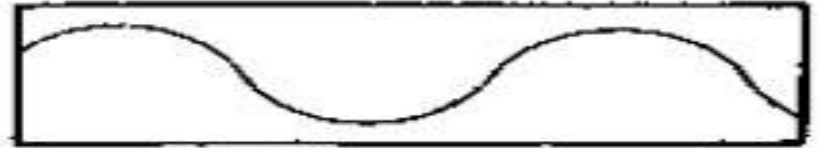


Number of beats  
per minute

### Rate

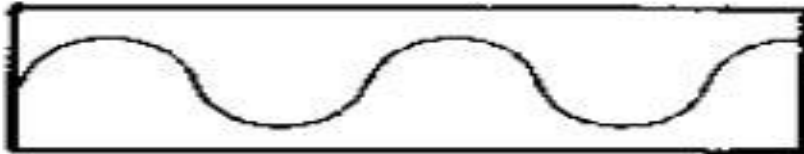


Tachycardia  
(over 100 per minute)

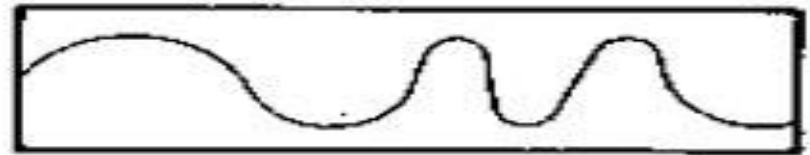


Bradycardia  
(under 60 per minute)

### Rhythm

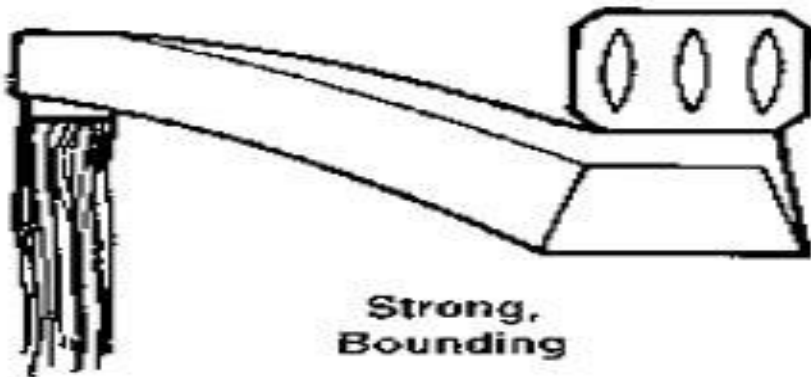


Regular

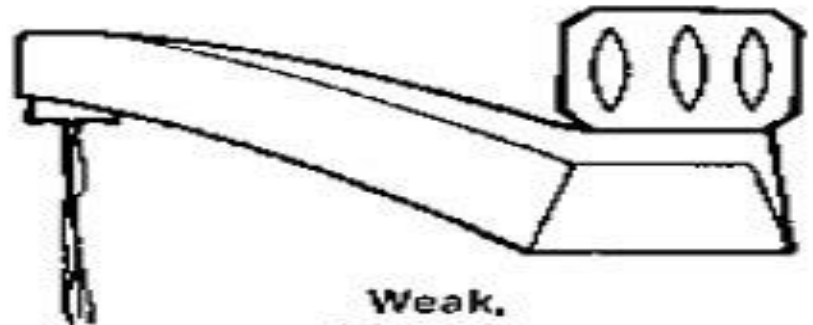


Irregular

### Volume



Strong,  
Bounding



Weak,  
Thready

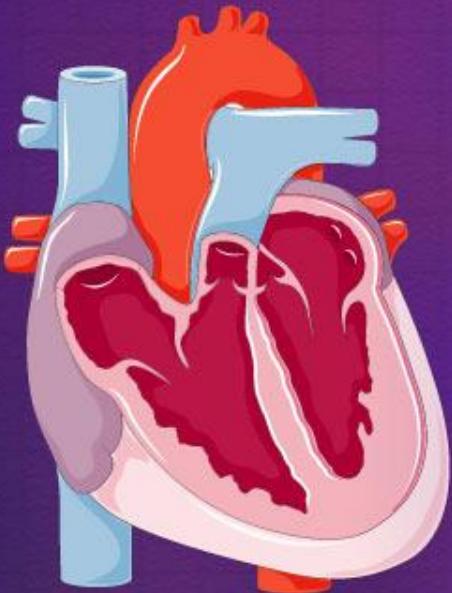
# Factors Affecting Pulse

## Increase Pulse:

- Exrs
- Stress
- Drugs
- Fever
- Excitement
- Shock

## Decrease Pulse:

- Sleep
- Drugs
- Heart Disease
- Coma
- Physical Training

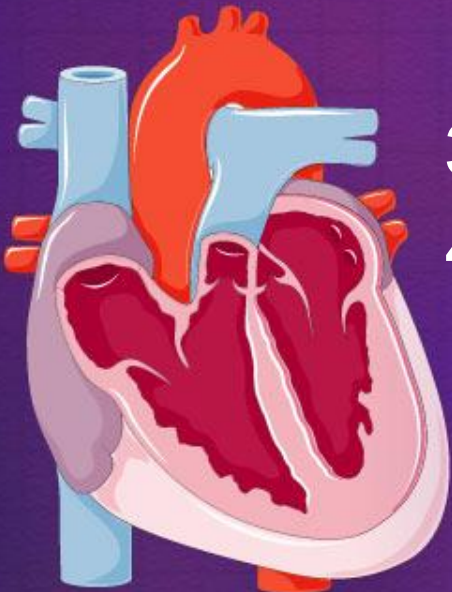


# Apical Pulse, AP

**Def:** heartbeat heard at the apex of the heart.

## Reasons for taking apical pulse:

1. ordered by the doc
2. cardiac pts: irregular heart beats, hardening of the arteries or weak pulse
3. prior to certain meds
4. all infants = pulse is rapid & difficult to count



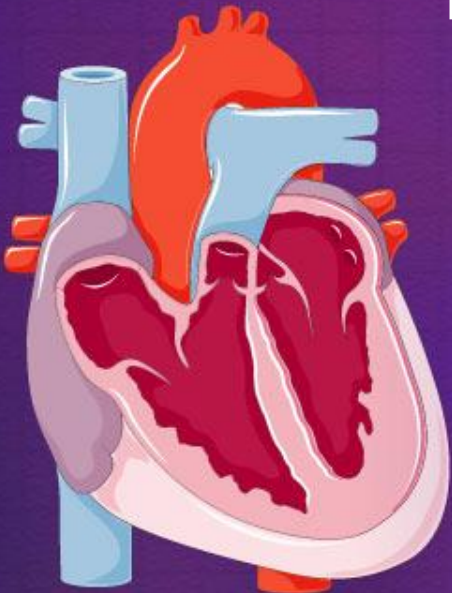
# AP continued...

Heart sounds – caused by the closing of the heart valves as bld flows through the chambers of the heart.

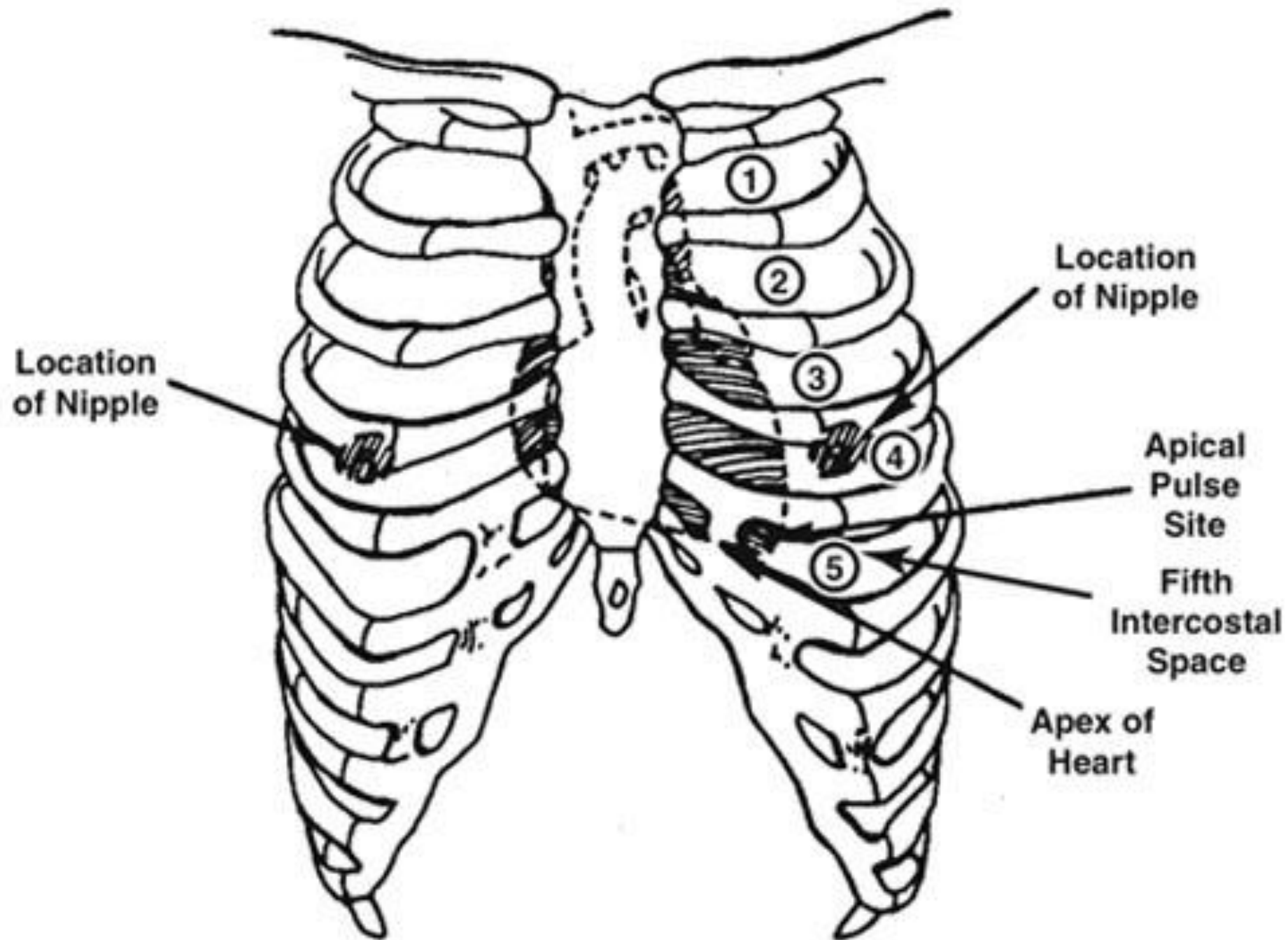
1 beat = 1 lubb-dubb (2 distinct sounds)

Locating the AP:

1. Place bell of stethoscope 2-3 inches to the L of the sternum below the L nipple
2. Listen for one full minute



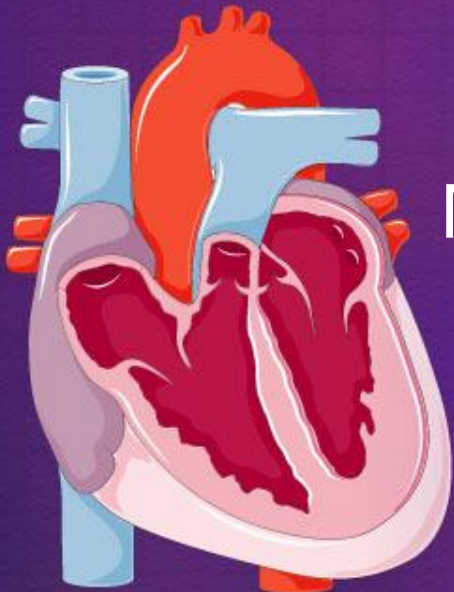




# Pulse Deficit

Occurs if...

1. Heart is weak & does not pump enough blood to produce a pulse in some cases.
2. Tachycardia → not enough time to fill up the atria for every beat.

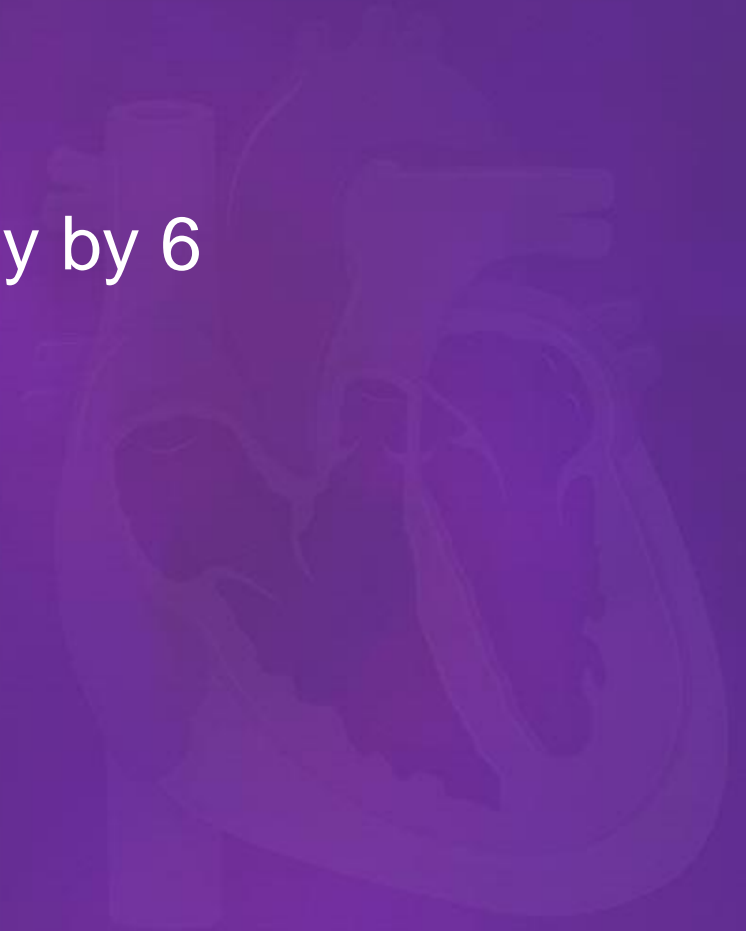
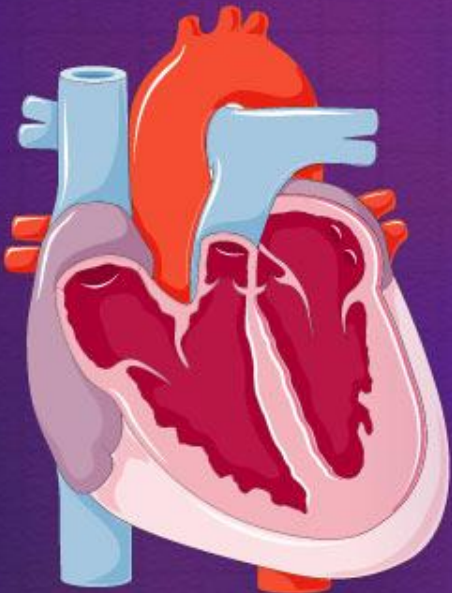


Measurement of pulse deficit:

1. Measure apical & radial pulse at the same time (2 people)
2. Subtract radial rate from apical rate = pulse deficit

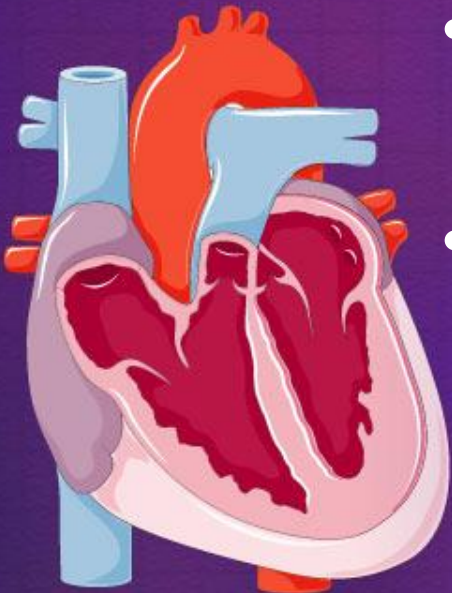
# Measuring Pulse

- Count for 10s multiply by 6
- Count for 15s (4)
- Count for 30s (2)



# Recording VS Results

- Accuracy is essential
  1. report abnormal findings STAT
  2. have questionable readings checked by another individual
- Physician will decide if info can be told to a pt.
- Use Graphing TPR if available



# Graphing TPR

- A. Graphs present a visual diagram of variations in a pt's VS & are easier to follow than a list of #s
- B. Graphic sheets are legal records
  1. must be neat, legible & accurate
  2. must be completed in ink
- C. Sheets may vary from area to area & hospital to hospital
- D. Military Time





# VS Lab #2

- Correctly record the following VS measurements on a TPR graph for two classmates:
  - P (record using an open dot)
  - BP (must be within 5 mmHg of my measurement)
- Your adm date is 10/22/14

