

PULSE

Contraction of the heart

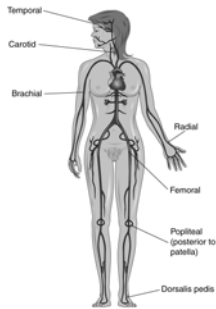
Palpation of an artery – peripheral pulses

Auscultation of heart rate – apical pulse



Pulse Sites

Figure 16.11
Pulse Sites (Palpation)



Radial Pulse

- Adults, children > 3 years
- Most easily accessible
- Located inside of wrist on thumb side
- Place 2 – 3 fingers on artery & apply gentle pressure
- Never use thumb – it has a pulse!

Rate, Rhythm & Force

- **Rate:**
 - Adult 60 – 100 beats per minute (bpm)
 - Tachycardia
 - Bradycardia
- **Rhythm:**
 - Checked for irregularities, arrhythmias
 - Missed or skipped beats
- **Force:**
 - Strength
 - Strong, bounding, weak, thready



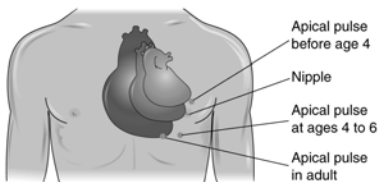
Brachial pulse

- **Peripheral pulse**
- **Location – medial, antecubital space**
- **Assessed in infants**
- **Located prior to taking a blood pressure**



Apical Pulse Point of maximal impulse (PMI)

Figure 30.11
Location of the Apical Pulse in the Infant, Child, and Adult



Apical Pulse

- Auscultated with stethoscope
- Stethoscope placed over apex of heart
- Apex located on the left side of the chest between the fifth & sixth ribs
- Just below left nipple in men, under left breast in women
- Listen for two sounds – LUB / DUB
- The louder sound LUB is counted
- Count for one full minute

Apical pulse rates are checked...

- Before administering drugs that can alter heart rate / rhythm
- In children whose rates are difficult to count at the radial pulse point
- Infants
- If radial pulse is irregular
- Whenever uncertainty exists
- Whenever a pulse deficit exists

Pulse deficit...

- When heart is too weak to send blood to peripheral arteries
- The difference between the apical pulse and the radial pulse
- One person counts apical pulse
- One person counts radial pulse
- Recording deficit:
 - Apical pulse = 110
 - Radial pulse = 80
 - Pulse deficit = 30