

# EKG Monitoring

Lead placement

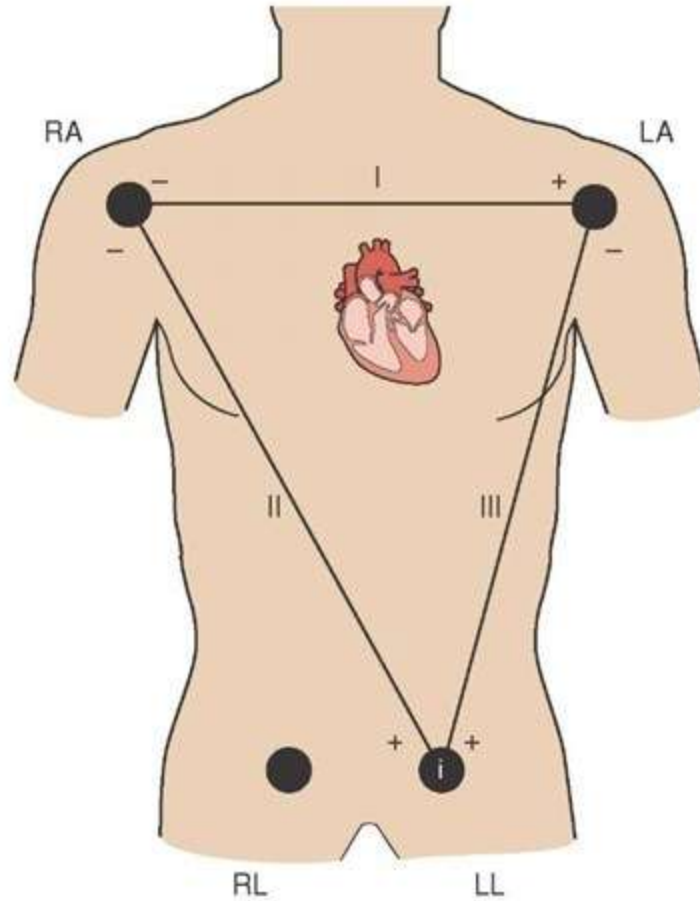
# 3 Lead EKG

- **White lead** - right shoulder or clavicle area
- **Black lead** - left shoulder or clavicle area
- **Red lead** - left lower abdominal area
- **Green lead** - right lower abdominal area

Often used in an ambulance or an emergent situation; monitors the heart rhythm, but does not give as much detail as a 12 lead



# 3 lead



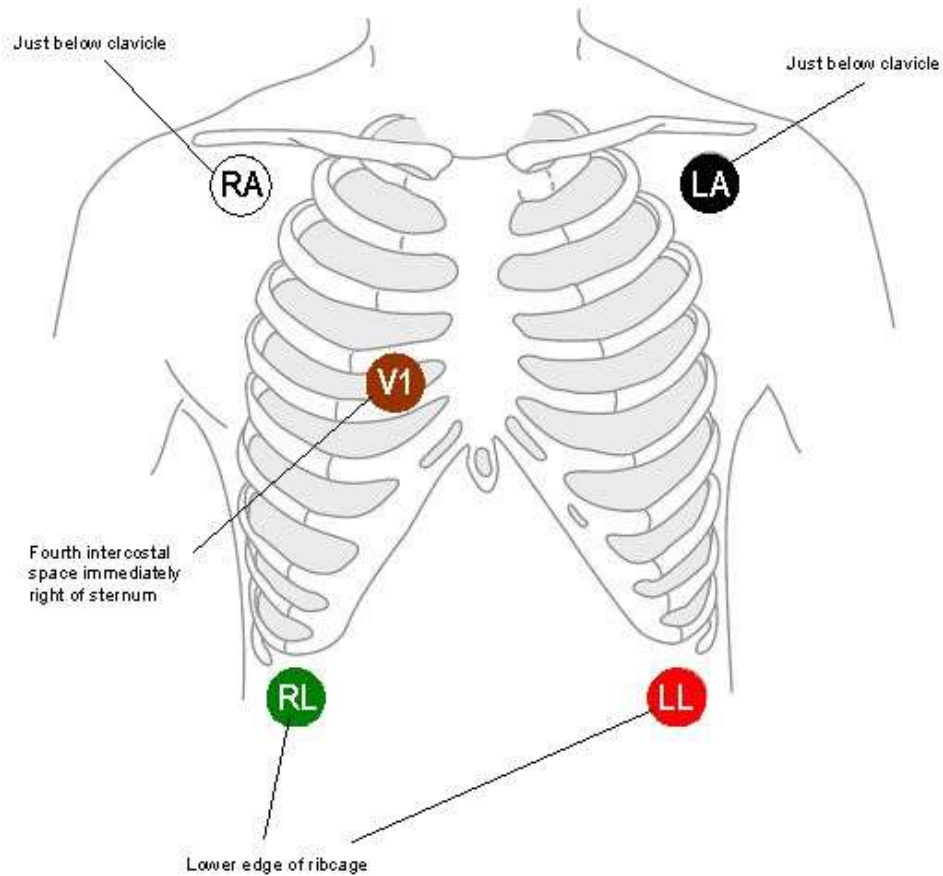
# 5 Lead EKG

- **White lead** - right sternum/clavicle area
- **Black lead** - left sternum/clavicle area
- **Red lead** - Left lower thoracic area
- **Green lead** - Right lower thoracic area
- **Brown lead** - just below and to the right of the bottom of the sternum
- Used for holter or telemetry monitoring

\*\*snow over grass, smoke over fire and chocolate in the middle\*\*



## 5 Lead



# 12 lead EKG

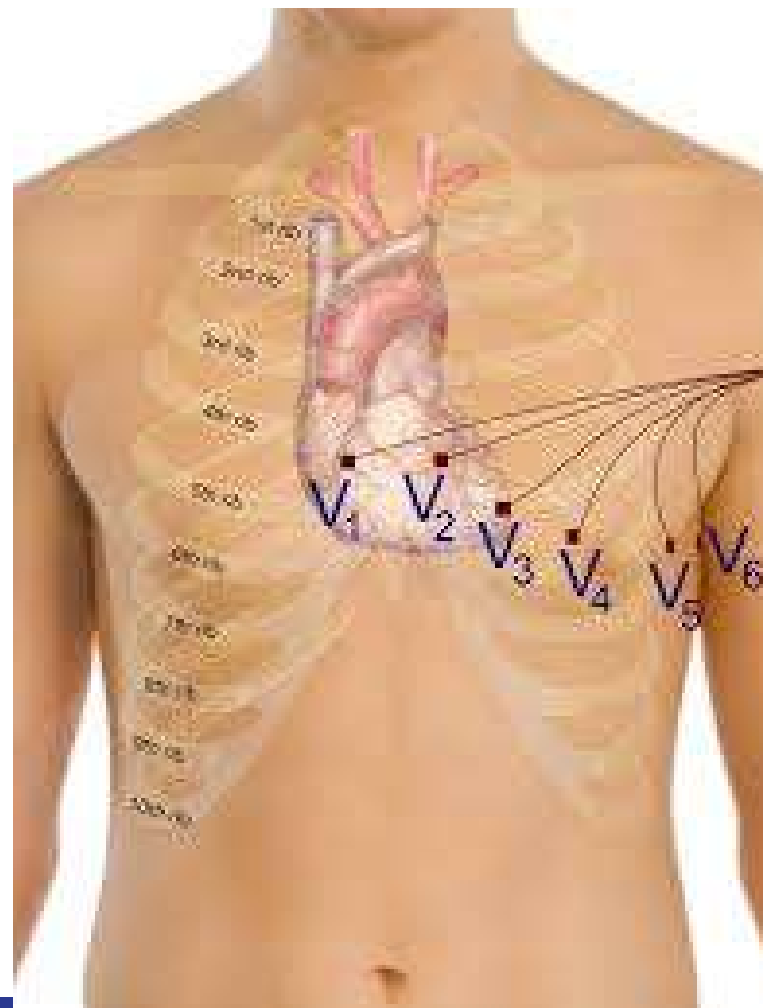
## Precordial Leads:

- **V1** - 4th intercostal space (ICS), R of sternum
- **V2** - 4th ICS, L of sternum
- **V4** - 5th ICS, midclavicular
- **V3** - between V2/V4
- **V6** - 5th ICS, midaxillary
- **V5** - 5th ICS between V4/V6


\*Gives the most accurate picture of the heart

\*\*Children under age 8 MI require right side leads





# Electrode Placement

- Wandering baseline - often appears when the electrodes are improperly placed on the pt's torso; movement, loose cables or electrodes
  - Seizure - causes huge artifact problems on the EKG; seizure must be controlled in order to have an accurate EKG.
  - Trembling- anxious, cold can result in tremor
  - Dry skin- if the pt's skin is very dry, electrodes won't adhere well; gently abrading and using tincture of benzoin promotes good adhesion
  - Wet skin - diaphoretic/sweating; wipe pt. off with a towel and apply tincture of benzoin - needs to be completely dry before applying the electrodes
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# Electrode placement (cont'd)

- Cold patient- apply warm blankets to avoid shivering; electrodes often won't adhere if the patient's skin is very cold
- Dry gel- electrodes should completely adhere to the skin to increase surface area; the gel senses extremely low levels of energy; Do not use electrodes with dry gel
- Cell phone interference - they interfere and may appear as a flutter or P waves; cell phones should be turned off or moved away
- Medical device interference -medical devices are often designed to minimize interference; consider non-medical devices as the source of interference first