

Types of EKG

Sunnyvale HST

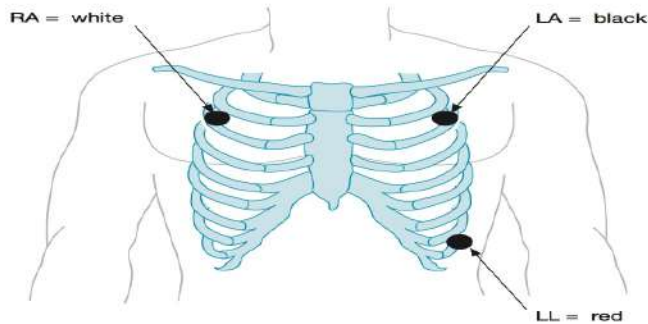
Wires vs. Leads vs. Electrodes

Wires: refers to the number of cables/electrodes attached in order to perform an EKG. Sometimes may be referred to as leads, which can be confusing.

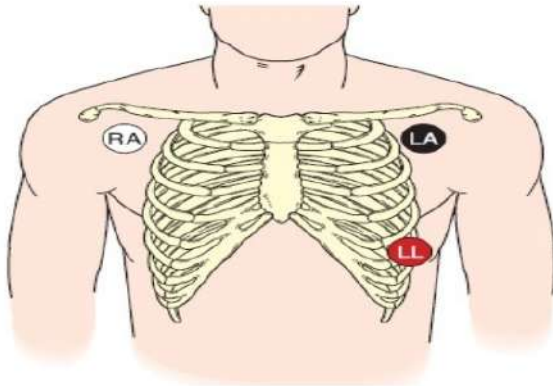
Leads: the views of the heart created by a combination of electrical signals sent between electrodes

Electrodes: patches applied to the body with gel that conduct electricity

3 Lead EKG

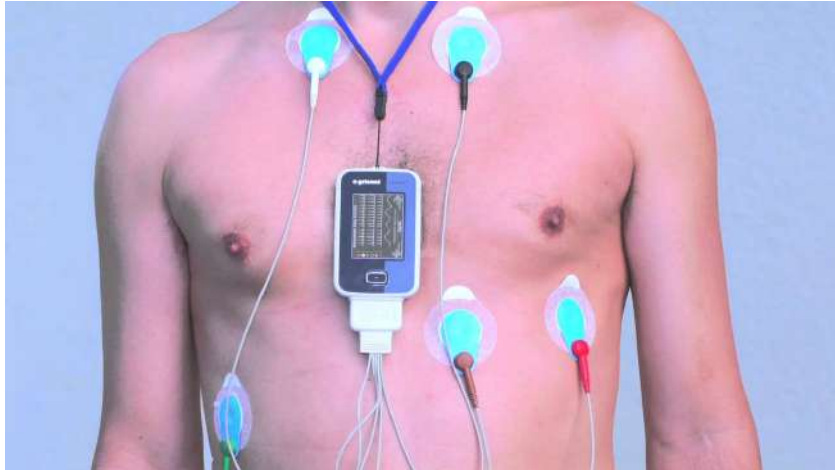
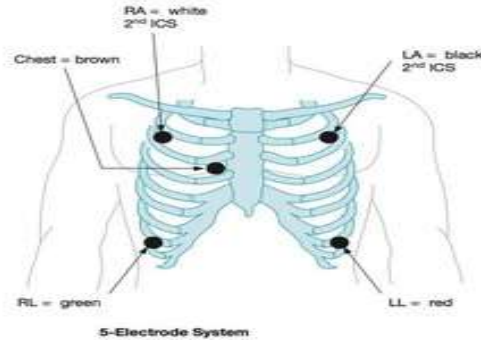


3 Electrode System



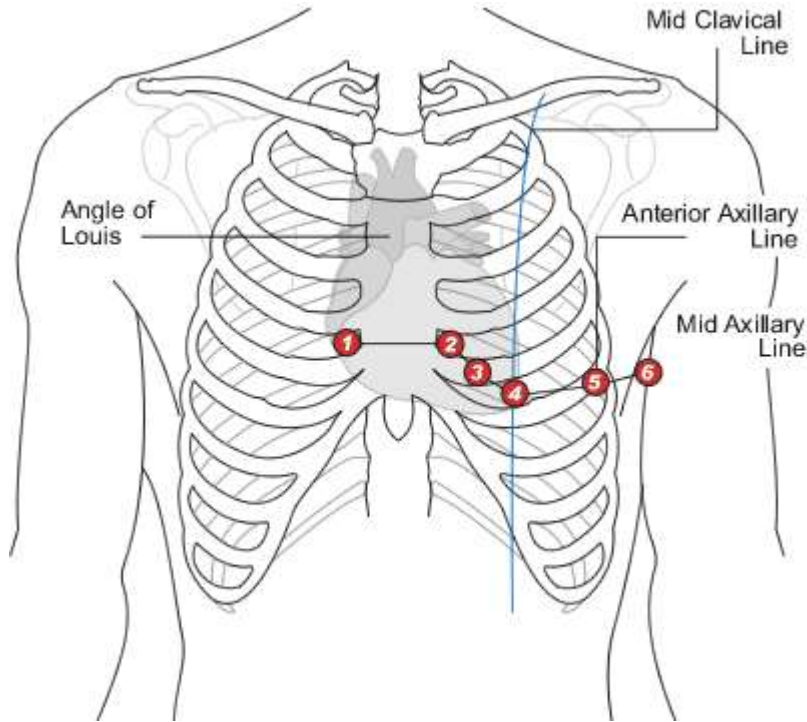
- Generally used for continuous monitoring (in the hospital)
- 3 leads placed:
 - RA (white) on upper right chest
 - LA (black) on upper left chest
 - LL (red) on lower left chest
- Sometimes a 4th lead is placed
 - RL (green) on lower right chest
- Snow (white) on grass (green), smoke (black) rises over fire (red)

5 Lead (Holter or Ambulatory Monitor)



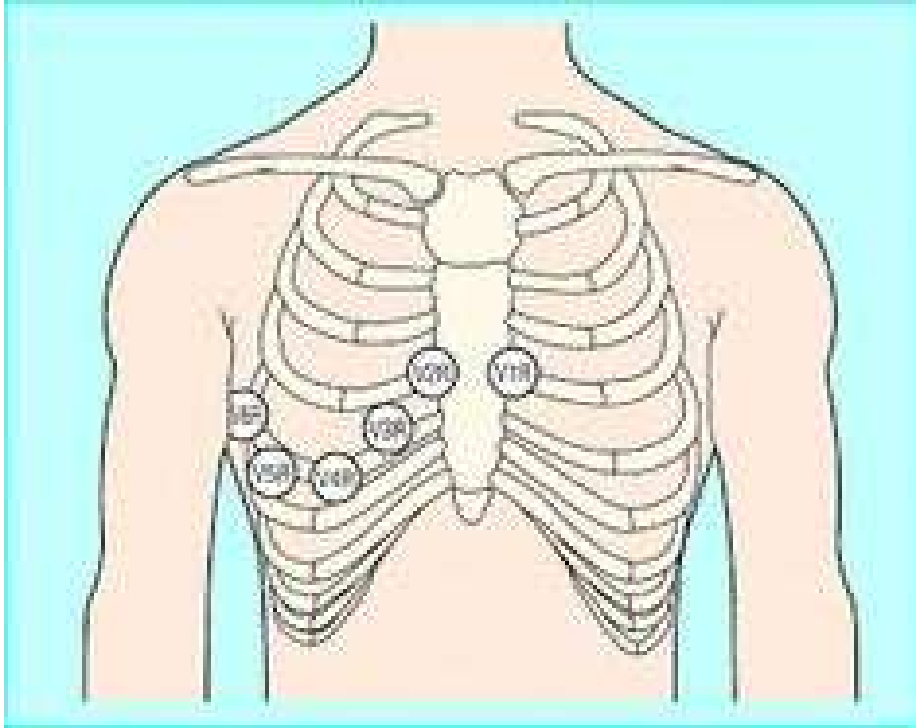
- Used to monitor patients for longer stretches of time (24 hours-1 week)
- Meant to be worn continuously during that period of time
- Has an “event button” for patients to push if they experience chest pain, etc.
- 5 electrodes placed:
 - RA (white): upper right chest
 - RL (green): lower right chest
 - LA (black): upper left chest
 - LL (red): lower left chest
 - (brown): just below and to the right of the sternum

12 Lead



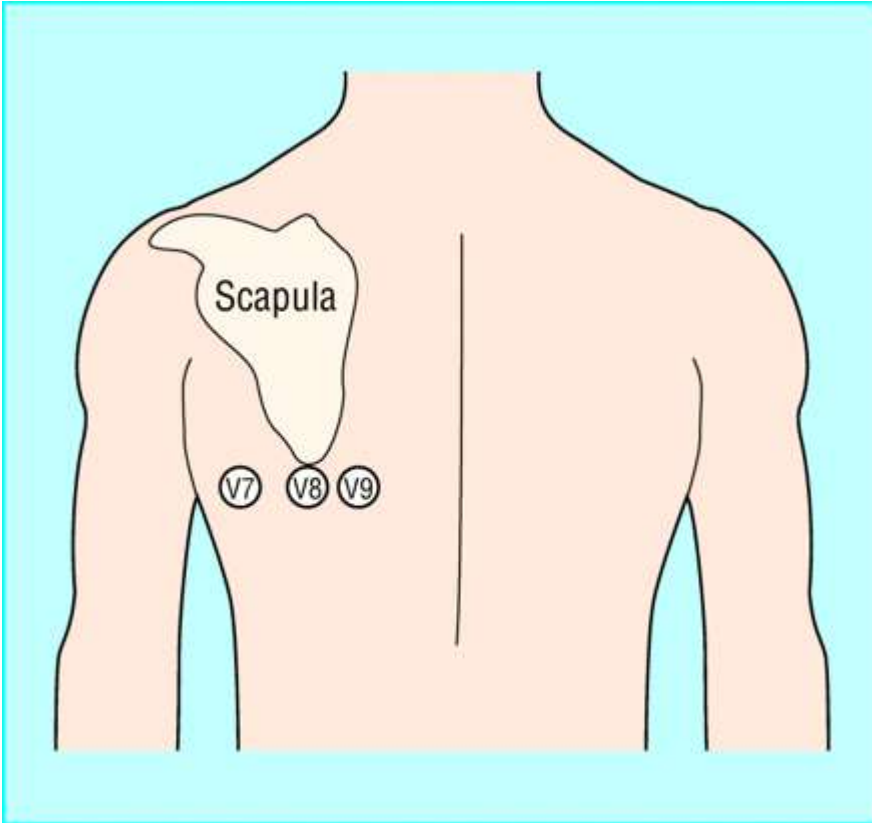
- Generally used for stress testing and to determine the location of ischemia, injury or infarction
- Gold standard of ekg monitoring
- 10 electrodes placed
 - White (RA), green (RL), black (LA) and red (LL)
 - V1: 4th intercostal space to the right of sternum
 - V2: 4th ICS to the left of sternum
 - V3: midway between V2 and V4
 - V4: 5th ICS on the left midclavicular line
 - V5: 5th ICS between V4 and V6
 - V6: 5th ICS on the left midaxillary line

Right-Sided 12 Lead EKG



- Used for patients with STEMI (ST elevation myocardial infarction), patients younger than 8 and inferior myocardial infarctions
- 10 electrodes placed
 - White, green, black and red
 - V1R: 4th ICS, left of sternum
 - V2R: 4th ICS, right of sternum
 - V3R: between V2R and V4R
 - V4R: 5th ICS, right midclavicular line
 - V5R: 5th ICS between V4R and V6R
 - V6R: 5th ICS, right midaxillary line

15 Lead EKG



- Used if a posterior myocardial infarction is suspected
- 13 electrodes placed
 - White, green, black, red
 - 6 precordial leads (V1-V6)
 - V7: between V6 and V8
 - V8: below tip of L scapula
 - V9: to the right of V8

