

BASIC EKG

An Electrocardiogram (ECG)

- Measures the electrical changes within the heart by reflecting the electrical potentials as they spread throughout the myocardium
- Measures potentials only when they are moving.

Leads

- Standard leads- (I, II, and III) Record the difference in potential between the left arm, right arm, and the left leg.
- Augmented leads- (aVR, aVL, aVF) Record difference in potential between positive extremity lead and the electrical center of the heart.
- Precordial leads- (V1, V2, V3, V4, V5, V6) Measure voltage across transverse or horizontal plane. Record anterior to posterior potentials.

PROPER PLACEMENT

White-----Black
Brown
Green-----Red

White is the upper right. (Think snow over trees.)

The white electrode is on the same side as the green.

Next, think of smoke over fire, the black electrode is on the upper left and red below.

Brown is the color of chocolate and always close to the heart.

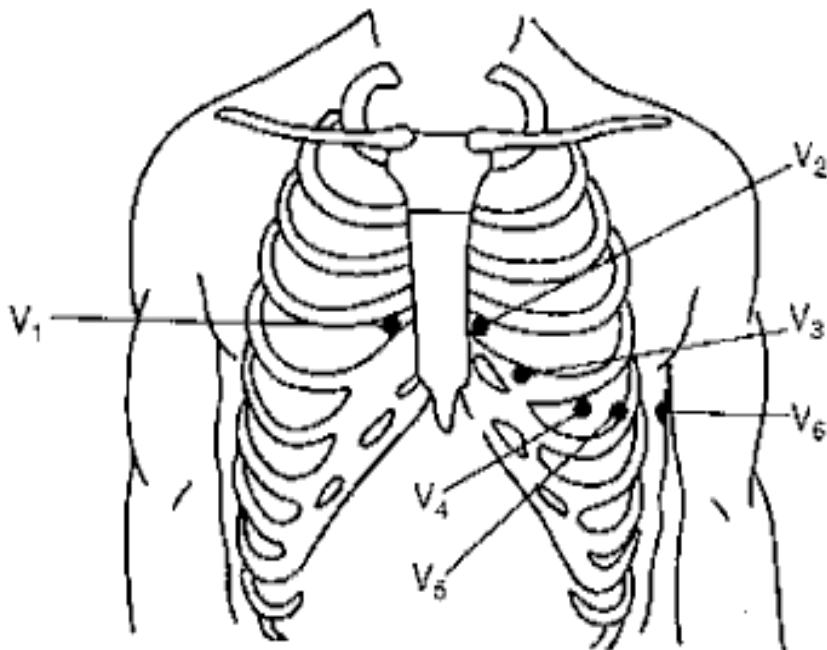
LEAD PLACEMENT

The limb leads and augmented leads should be placed on the proper body parts.

Please refer to your hospital guidelines for proper positioning. (left leg, left arm, right leg, right arm)

PRECORDIAL LEADS

- V1 is placed in the 4th intercostal space to the right of the sternum
- V2 is placed in the 4th intercostal space to the left of the sternum.
- V3 is placed between V2 and V4
- V4 is placed in the 5th intercostal space in the mid-clavicular line
- V5 is placed between V4 and V6
- V6 is placed in the 5th intercostal space in the mid-axillary line.



Rhythm Recognition

1. PR Interval
2. QRS identification
3. T wave identification
4. Normal Sinus Rhythm
5. Recognize PVC (Multifocal)
6. Heart Block Identifications – 1st degree, 2nd degree Type I, 2nd degree Type II, 3rd degree
7. Atrial Fibrillation
8. Ventricular Tachycardia
9. Ventricular Fibrillation
10. Supraventricular Tachycardia
11. Bradycardia

12. Torsade's de Pointe
13. Asystole
14. Atrial Flutter
15. Idioventricular Rhythm
16. Sinus Tachycardia
17. ST elevation
18. ST depression
19. Pacemaker Rhythm

The student has successfully demonstrated the skills listed above.

STUDENT INFO

Name _____

Signature _____

Date _____

State and license number _____

NREMT number (if available) _____

INSTRUCTOR INFO

Name _____

Signature _____

Date _____

Profession _____

Specialty _____