

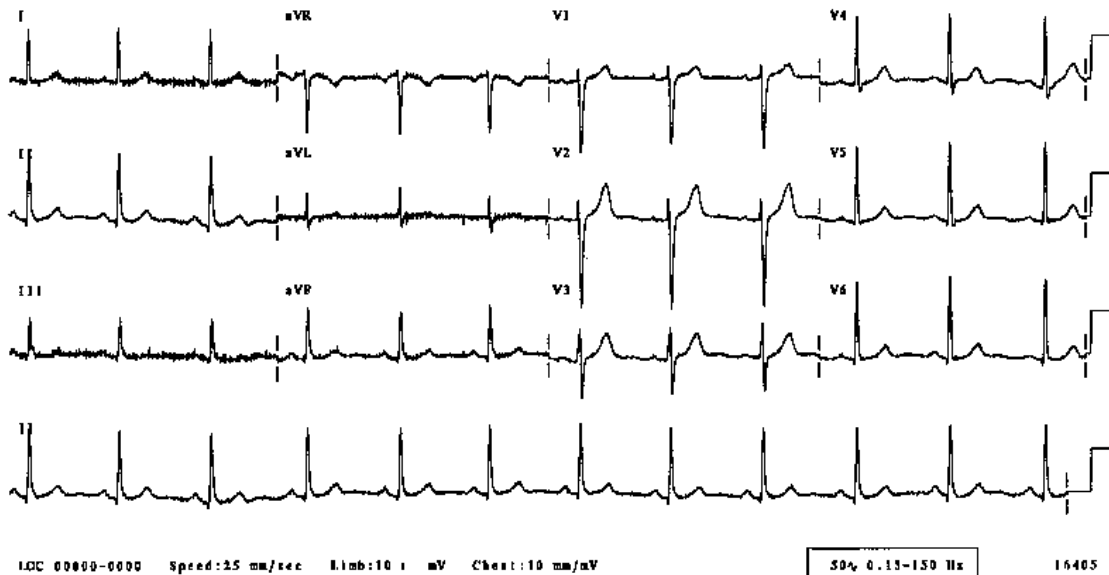
Handout Introduction to EKG Monitoring

Cardiac Monitoring monitors the heart's electrical activity from one view (or lead) over time. The purpose of cardiac monitoring is to detect **dysrhythmias** (abnormal rhythms of the heart). Results are viewed on display screen and or paper printout (electrocardiogram or **tracing**)

12-Lead EKG A brief (10 second) view of the heart's electrical activity from different views (or leads). The purpose of a 12-lead EKG is to diagnose diseases of the heart and other problems such as Acute Myocardial Infarction.

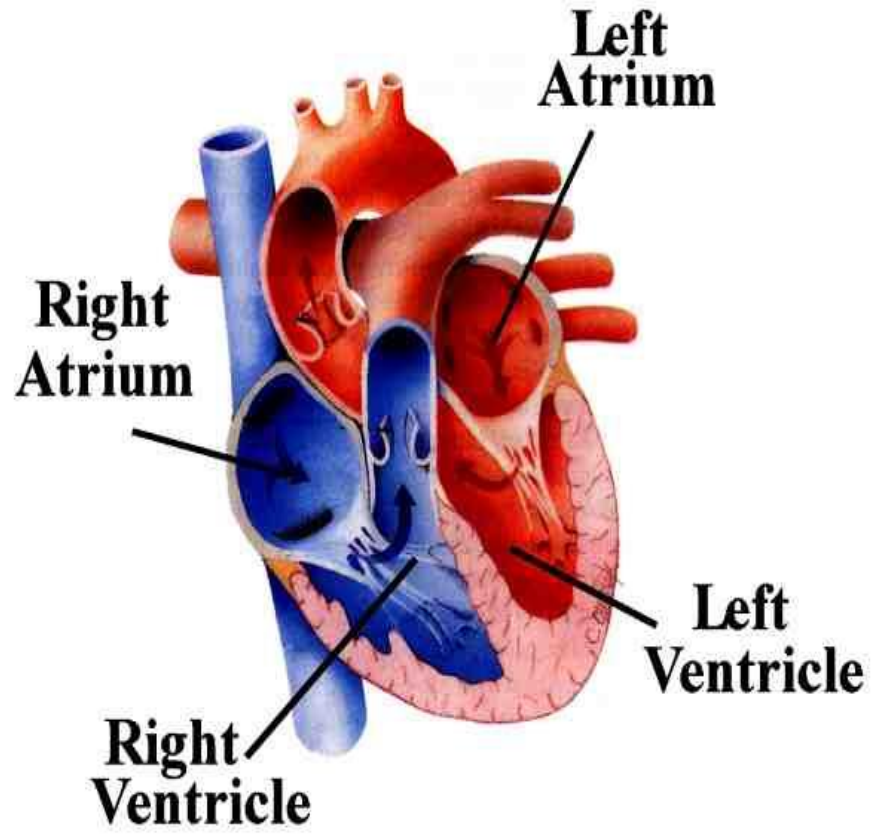


Monitor tracing or “strip”

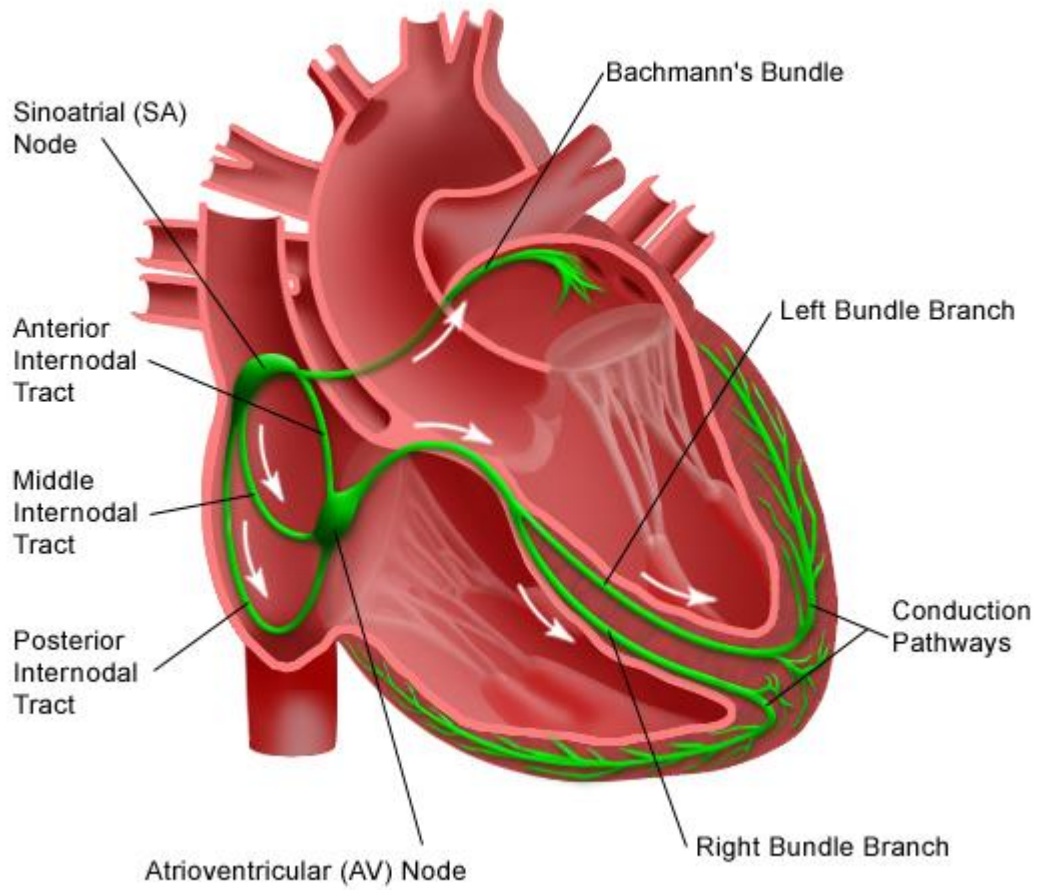


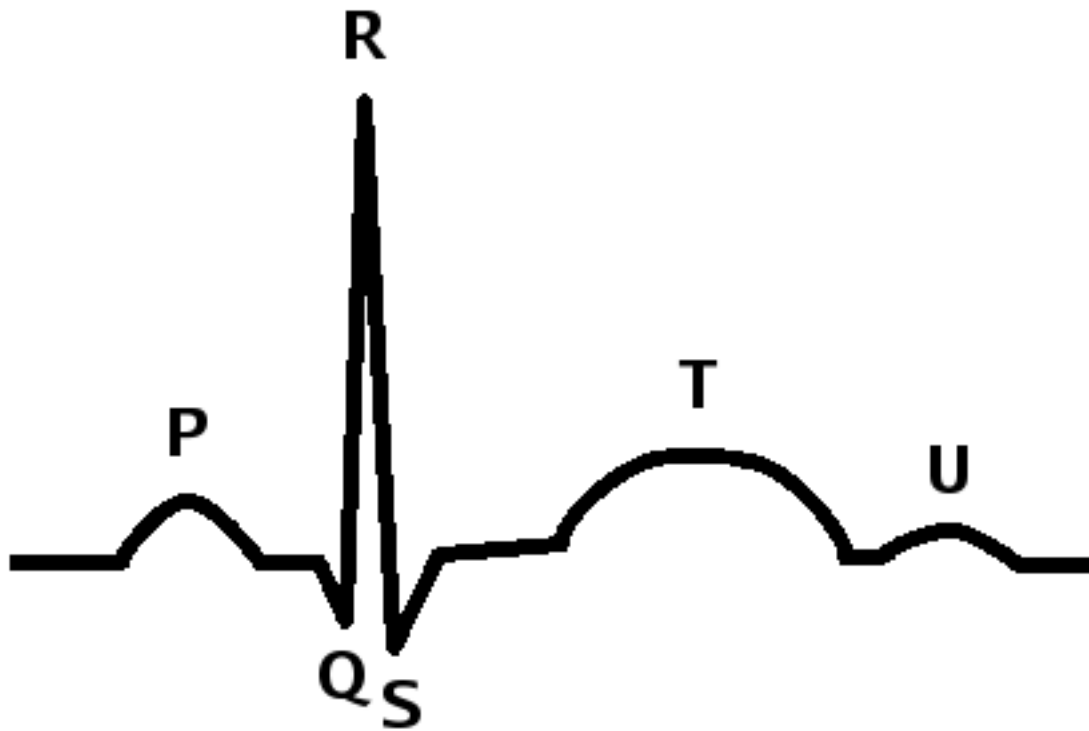
A 12-lead EKG. The top 3 lines (or channels) are the 12-lead EKG, the bottom is a rhythm strip to aid in the interpretation of the rhythm.

Anatomy review



Electrical System of the Heart



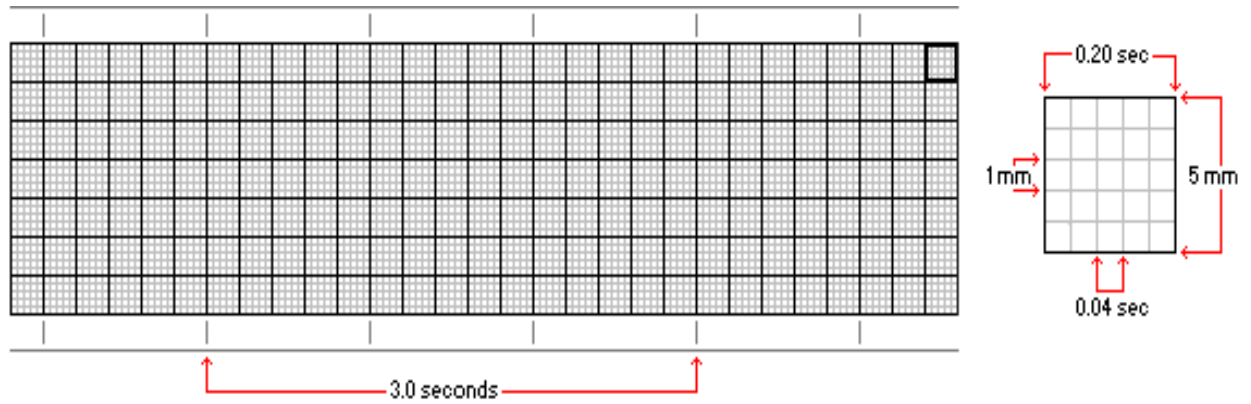


P wave = Atrial Depolarization

QRS = Ventricular Depolarization

T wave = Ventricular Repolarization

Timing and sequence of conduction = Diagnosis



Determining Ventricular Rate:

Easy method -

Find the ventricles (QRS)

How many QRS's in 6 seconds of tracing?

$\times 10 =$ Ventricular rate.

Samples for practice:

Tracing A



Tracing B



Tracing C



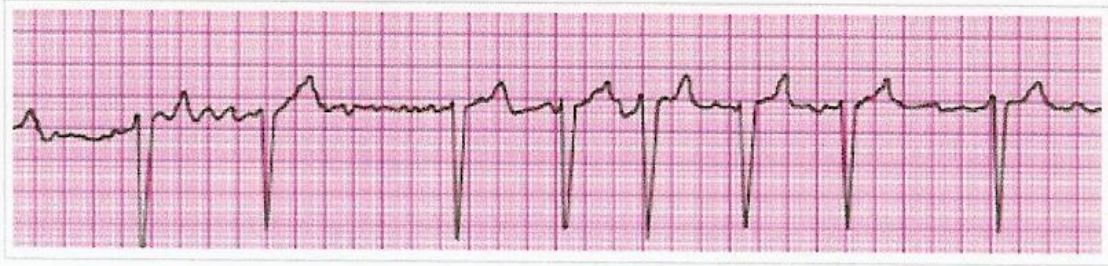
Tracing D



Tracing E



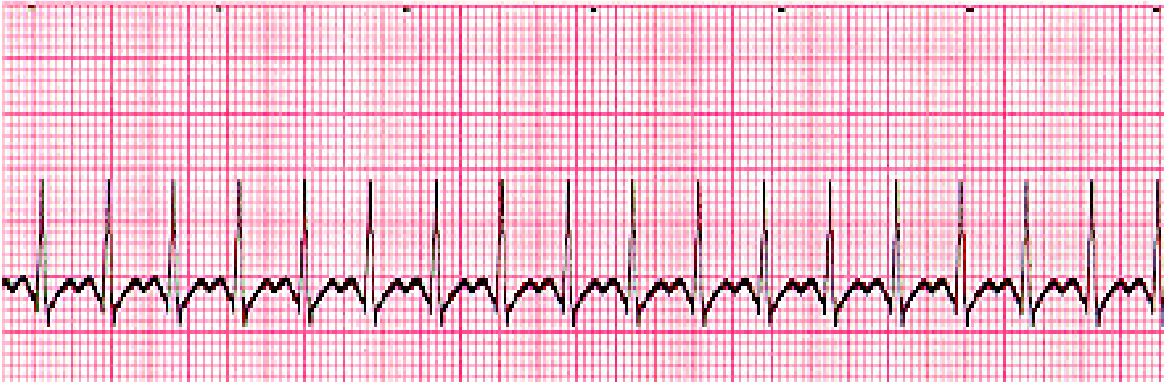
Tracing F



Tracing G



Tracing H

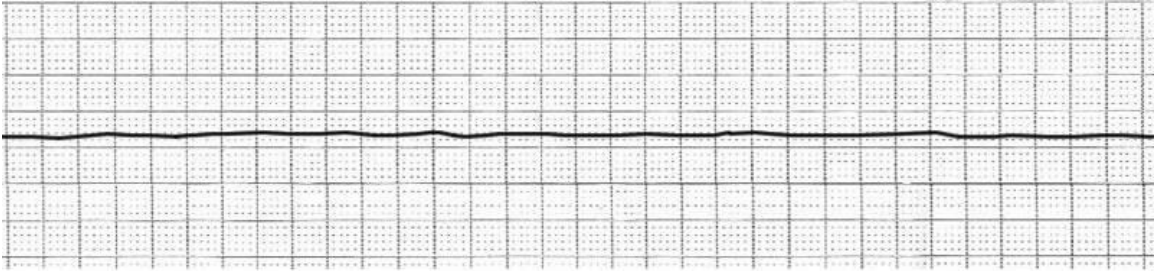


Tracing I

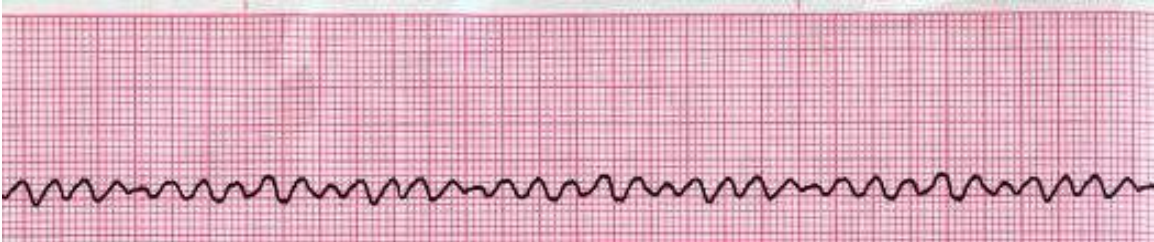


Lethal Rhythms

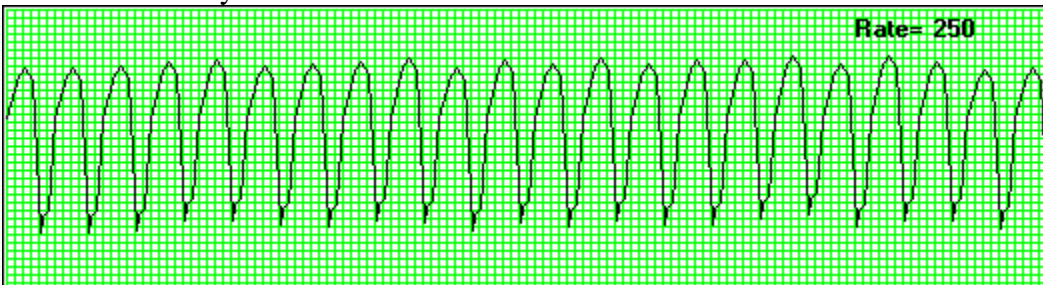
Asystole



Ventricular Fibrillation (V-Fib)



Ventricular Tachycardia

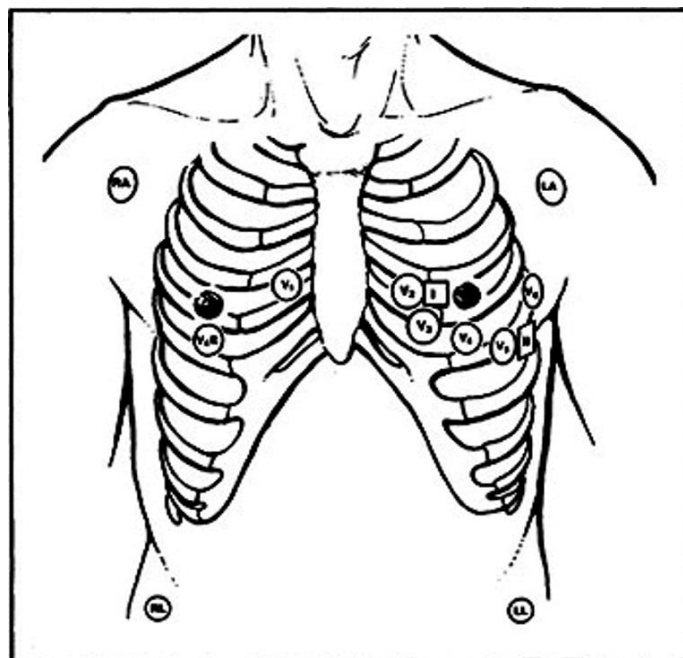
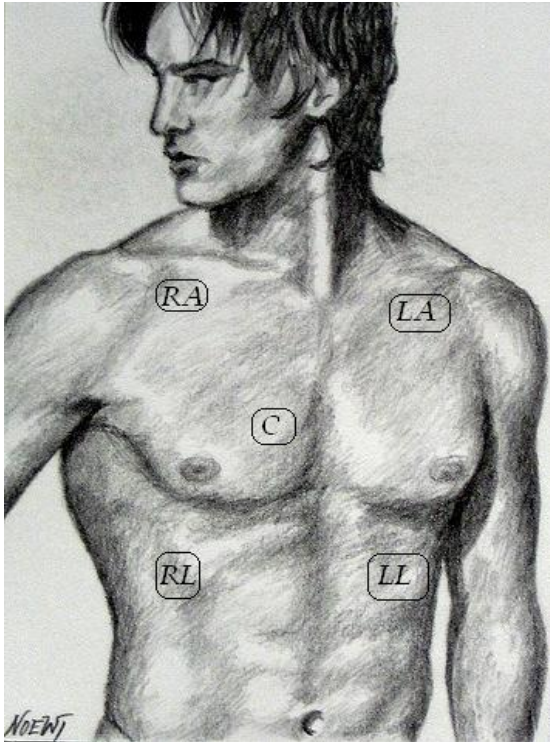


Lead Placement

3 wire sets RA LA LL

4 wire sets RA LA LL RL

5 wire sets RA LA LL RL C



Skills Demonstration

Apply Cardiac Monitor to Patient

Given a simulated patient, a cardiac monitor with lead wires, electrodes, and prep supplies, obtain a readable ECG tracing. Recognize the ventricular rate and determine if a lethal rhythm exists.

1. Introduce yourself and explain the procedure to your patient
2. Use appropriate BSI
3. Inspect all equipment
4. Pre-attach the electrode (if using snap style electrodes)
5. Expose patients chest as needed
6. Locate the proper anatomical location for each lead wire
7. Prep each electrode site
8. Peel and place the electrodes
9. Drape the ECG cable without tension, out of the patients way
10. Turn on the Monitor
11. Select Lead 2 for monitoring
12. Adjust ECG size as needed
13. Observe the scope for an adequate tracing (look for lethal rhythms)
14. Print a six second (minimum) tracing
15. Analyze the ventricular rate.
16. Take immediate action if lethal rhythm exists. (Check pt. ABC's, call for help, start CPR, obtain AED)

Notes:

