

SNS COLLEGE OF PHYSIOTHERAPY



COIMBATORE-35

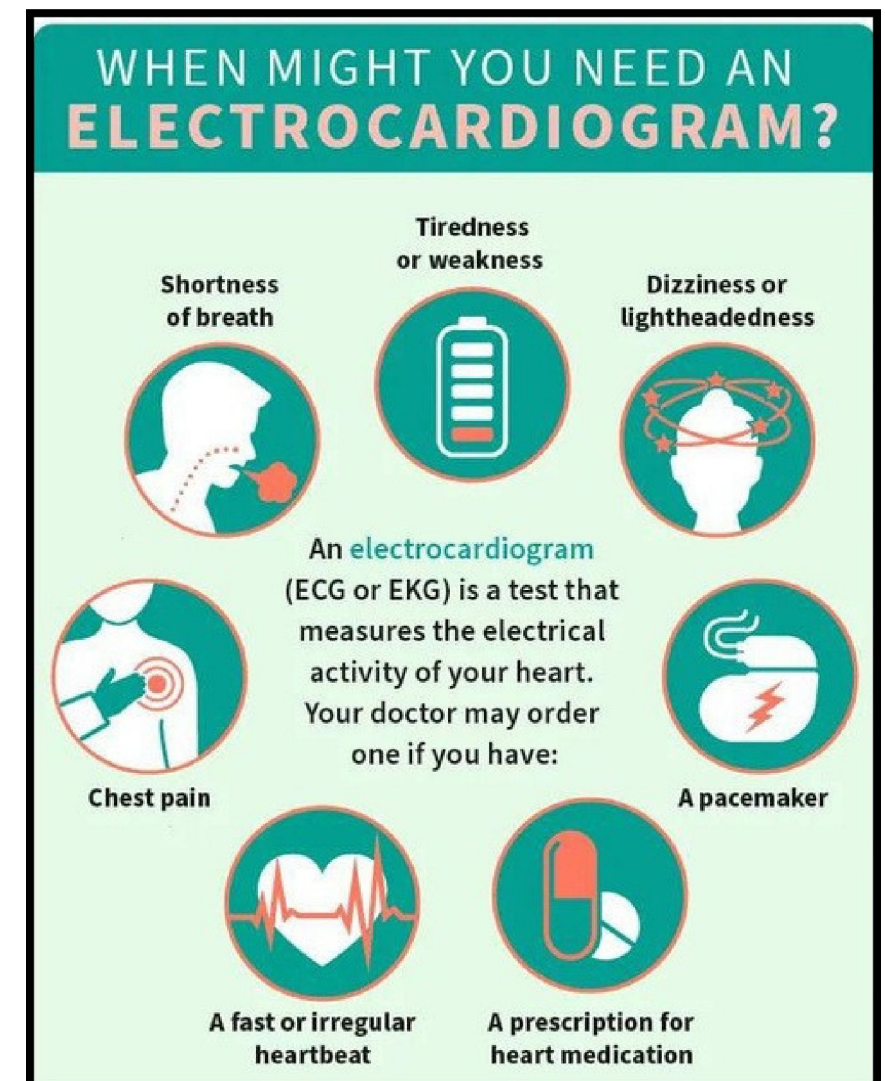
**SUBJECT:CLINICAL CARDIOLOGY AND
RESPIRATORY DISEASE**

TOPIC: ECG

Empathize

“Patient: “Why do you put all those wires on my chest?”

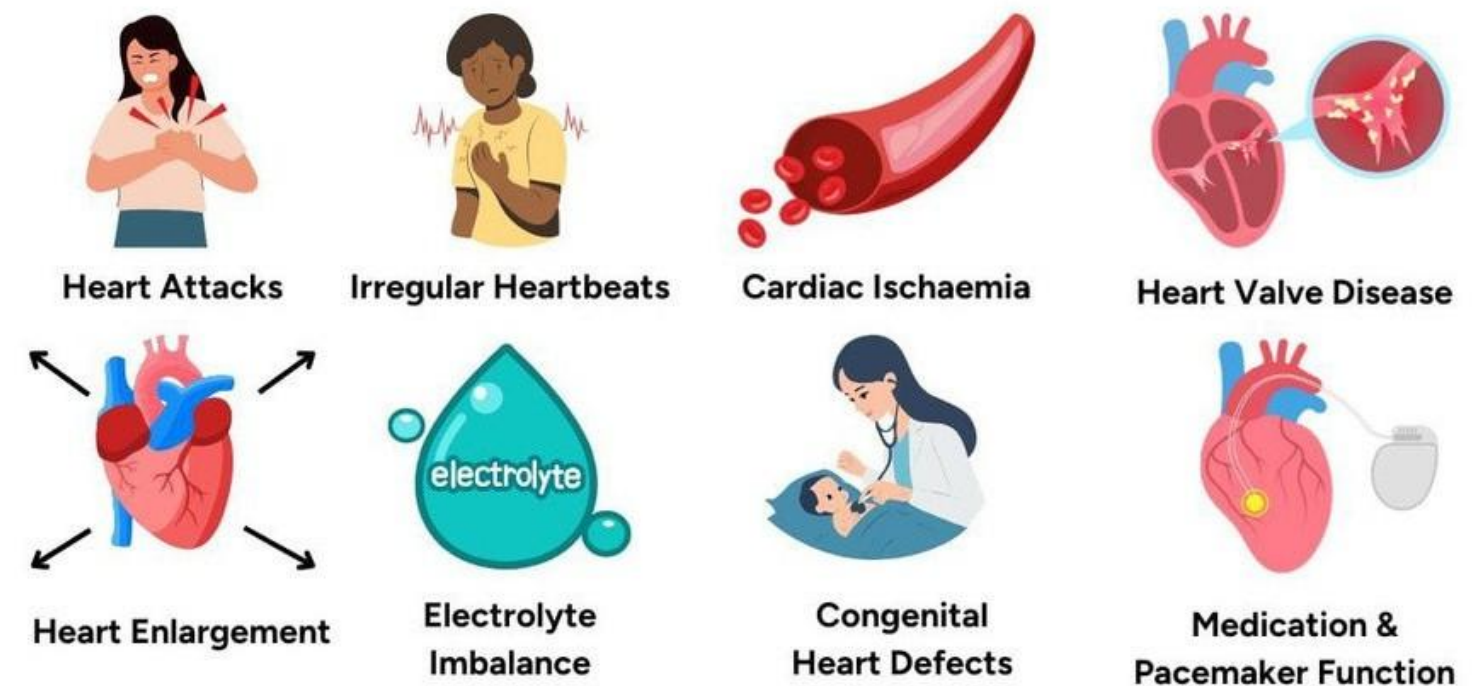
ECG helps detect silent heart problems — builds trust through explanation.



Ideate

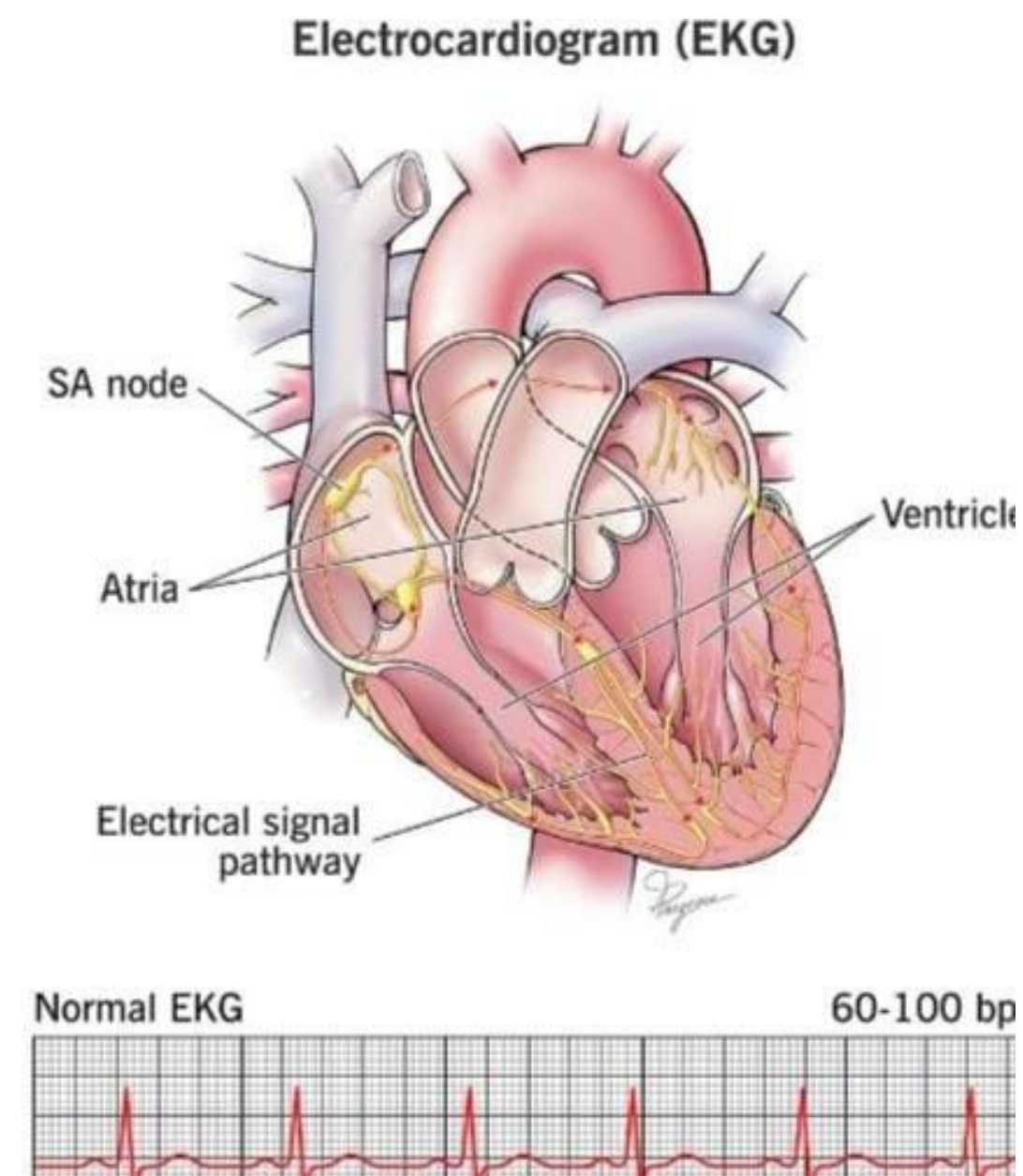
- Record electrical activity of heart.
- Diagnose arrhythmia, MI, conduction defects.

What can a 12-lead ECG detect?



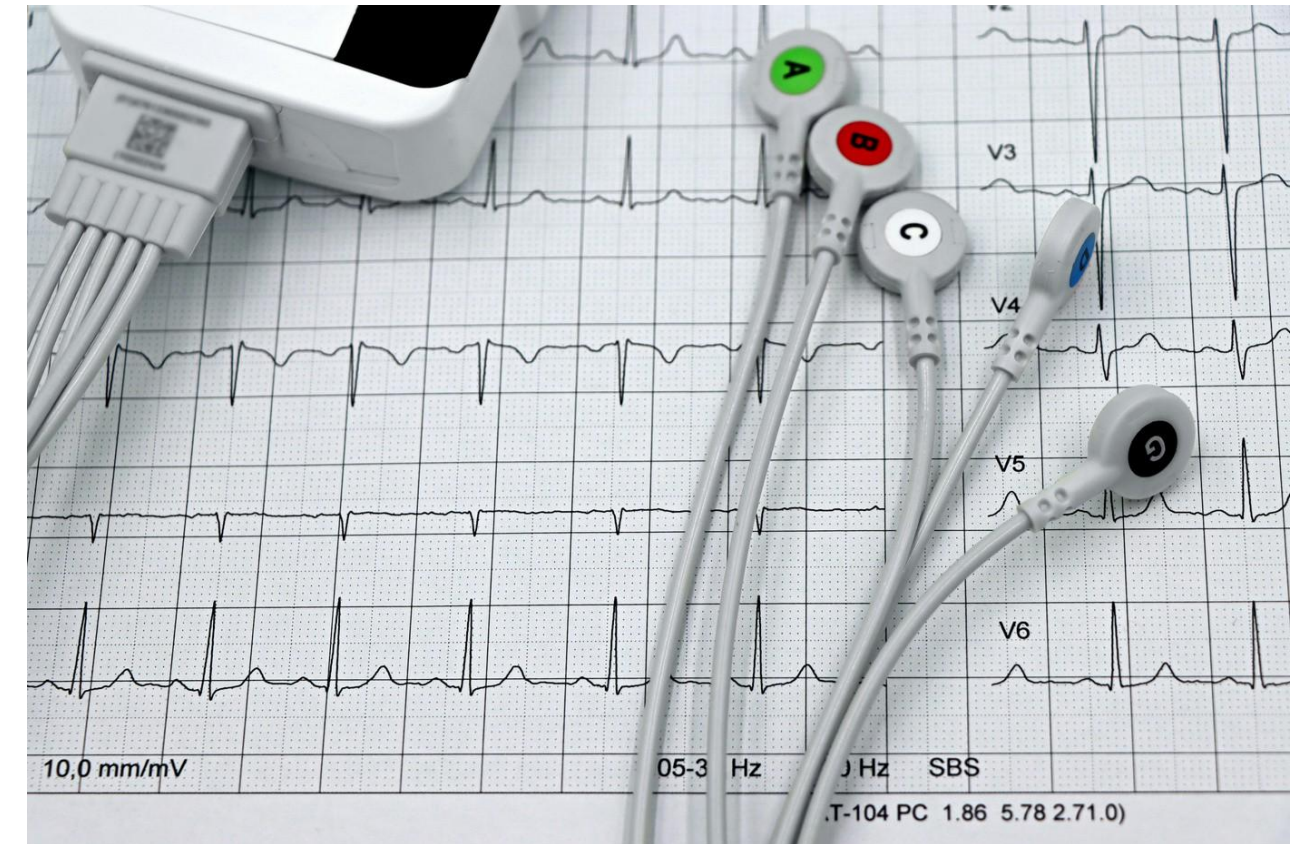
Define & Explain

ECG (Electrocardiogram): graphical recording of heart's electrical activity. Uses electrodes on chest and limbs.



Components of ECG

- P wave: atrial depolarization
- QRS complex: ventricular depolarization
- T wave: ventricular repolarization
- PR interval: conduction time from atria to ventricles



Leads



Limb leads: I, II, III, aVR, aVL, aVF

Chest leads: V1–V6

Used to localize area of infarction or conduction block.

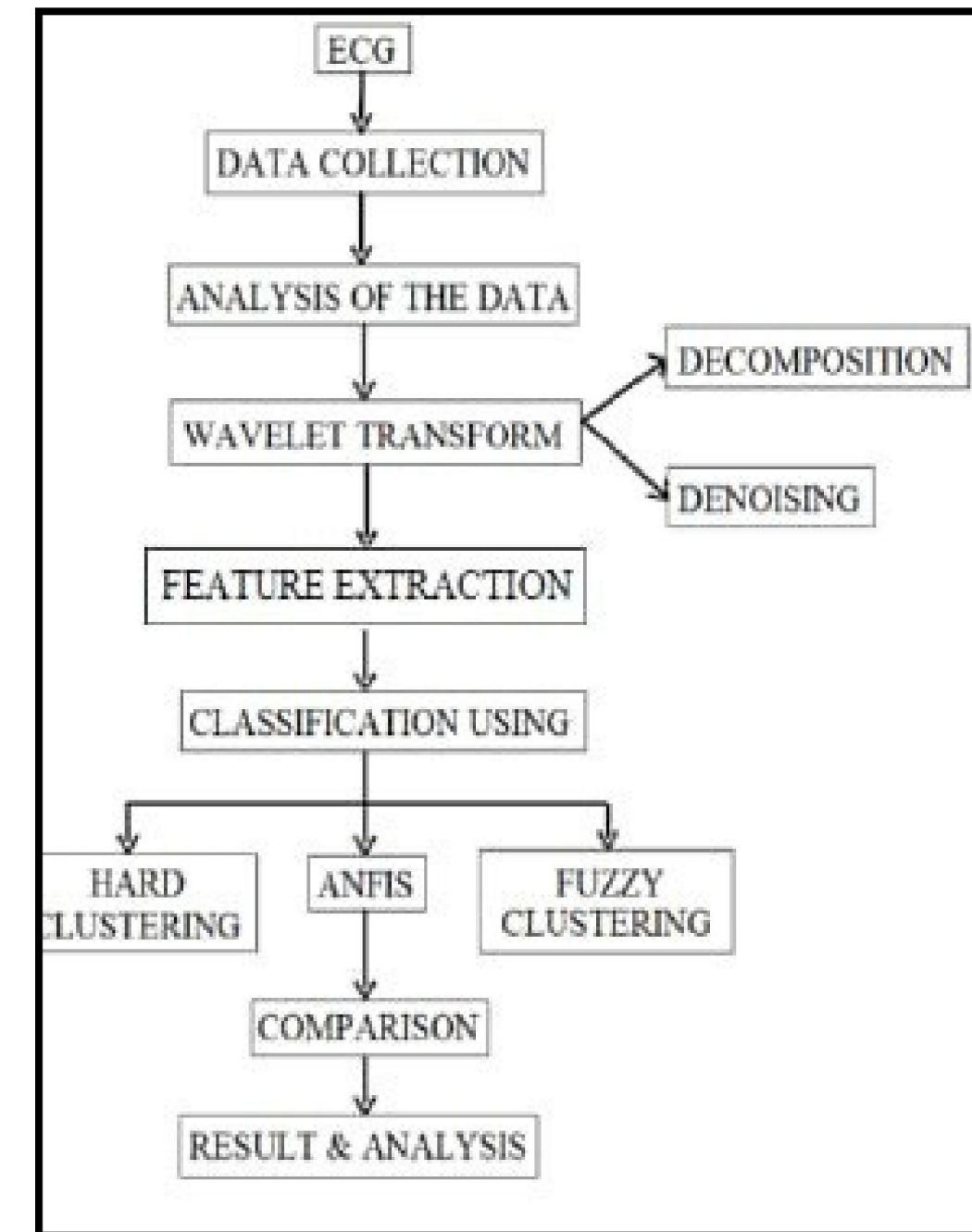
Clinical Cardio Relevance



- MI → ST elevation/depression
Arrhythmias → irregular P or QRS
-
- Electrolyte imbalance → T wave
- changes

Flow Chart (Roadmap)

Electrical Impulse (SA Node)
↓
Atrial Depolarization (P wave)
↓
Ventricular Depolarization (QRS)
↓
Ventricular Repolarization (T wave)
↓
Cardiac Cycle Representation



MCQs

The coronary arteries arise from:

- A. Pulmonary artery
- B. Left atrium
- C. Ascending aorta
- D. Descending aorta

Answer: C

The left coronary artery divides into:

- A. RCA and PDA
- B. LAD and Circumflex artery
- C. SA nodal artery and AV nodal artery
- D. Marginal and diagonal arteries

Answer: B

MCQs



The P wave in an ECG represents:

- A. Ventricular depolarization
- B. Ventricular repolarization
- C. Atrial depolarization
- D. Atrial repolarization

Answer: C

The QRS complex corresponds to:

- A. Atrial depolarization
- B. Ventricular depolarization
- C. Ventricular repolarization
- D. Atrial repolarization

Answer: B