

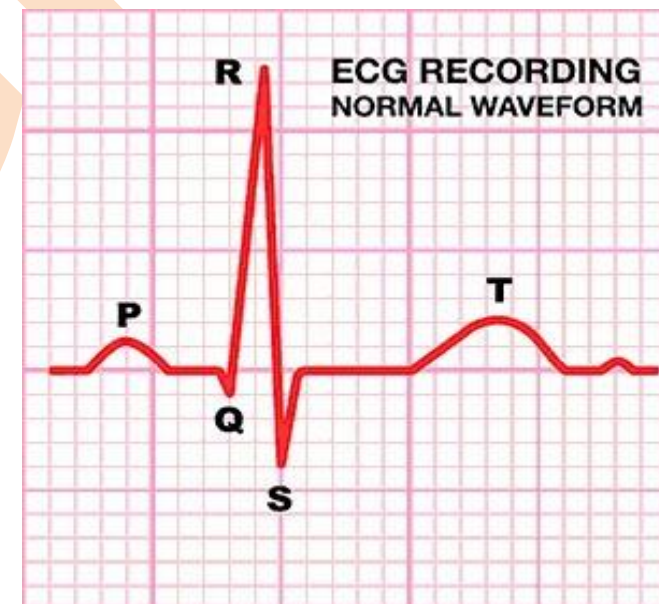
HUMAN ANATOMY AND PHYSIOLOGY-I, BP-101(T)

UNIT-V (Cardiovascular system)

CLASS:7

TOPIC – PULSE, ELECTROCARDIOGRAMElectrocardiogram

An **electrocardiogram** (ECG or EKG) is a test that checks how your heart is functioning by measuring the electrical activity of the heart. With each heart beat, an electrical impulse (or wave) travels through your heart. This wave causes the muscle to squeeze and pump blood from the heart.



PULSE:

- A pulse is the heart rate. It's the number of times the heart beats in one minute. The pulse can be measured using the radial artery in the wrist or the carotid artery in the neck.
- Heart rates vary from person to person. Knowing your heart rate can help you gauge your heart health.

General instructions for taking your pulse

To get an accurate pulse:

- Take your pulse at the same time each day.
- Sit down and rest several minutes before taking your pulse.
- Count your pulse for a full 60 seconds unless told otherwise by your healthcare team.

Taking your radial pulse

1. With your palm up, look at the area between your wrist bone and the tendon on the thumb side of your wrist. Your radial pulse can be taken on either wrist.
2. Use the tip of the index and third fingers of your other hand to feel the pulse in your radial artery between your wrist bone and the tendon on the thumb side of your wrist.
3. Apply just enough pressure so you can feel each beat. Do not push too hard or you will block the blood flow.
4. Watch the second hand on your watch or a clock as you count how many times you feel your pulse.
5. Record your pulse rate.

Taking your pulse using your radial artery

6. Use the tip of your index and third finger to feel the pulse in your radial artery between your wrist bone and the tendon on the thumb side of your wrist.

Taking your carotid pulse

1. Find the artery on one side of your neck near your windpipe. Your carotid pulse can be taken on either side of your neck. Do not do this if you have been diagnosed with plaques in your neck arteries.
2. Put the tip of your index and long finger in the groove of your neck along your windpipe to feel the pulse in your carotid artery. Do not press on the carotid artery on both sides of your neck at the same time. This may cause you to feel lightheaded or dizzy, or possibly faint.
3. Apply just enough pressure so you can feel each beat. Do not push too hard or you will block the blood flow.
4. Watch the second hand on your watch or a clock as you count how many times you feel your pulse.
5. Record your pulse rate.

Taking your pulse using your carotid artery:

6. Put the tip of your index and long finger in the groove of your neck along your windpipe to feel the pulse in your carotid artery.

Electrocardiogram:

An electrocardiogram (ECG or EKG) is done to check the heartbeat. It shows how fast or how slow the heart is beating. ECG test results can help your care team diagnose:

- Irregular heartbeats, called arrhythmias.
- A previous heart attack.
- The cause of chest pain. For example, it may show signs of blocked or narrowed heart arteries.

An ECG also may be done to learn how well a pacemaker and heart disease treatments are working.

You may need an ECG if you have:

- Chest pain.
- Dizziness, lightheadedness or confusion.
- Pounding, skipping or fluttering heartbeat.
- Fast pulse.
- Shortness of breath.
- Weakness or fatigue.
- Reduced ability to exercise.

A healthcare professional looks for heart signal patterns in the electrocardiogram results. Doing this gives information about the heart's health such as:

- **Heart rate.** The heart rate is the number of times the heart beats a minute. You can measure your heart rate by checking your pulse. But an ECG may be helpful if your pulse is difficult to feel or too irregular to count accurately. ECG results can help diagnose an unusually fast heart rate, called tachycardia, or an unusually slow heart rate, called bradycardia.
- **Heart rhythm.** The heart's rhythm is the time between each heartbeat. It's also the signal pattern between each beat. An ECG can show irregular heartbeats, called arrhythmias. Examples include atrial fibrillation (AFib) and atrial flutter.
- **Heart attack.** An ECG can diagnose a current or previous heart attack. The patterns on the ECG results can help a healthcare professional learn which part of the heart is damaged.
- **Blood and oxygen supply to the heart.** An ECG done while you're having chest pain symptoms can help your care team learn whether reduced blood flow to the heart is the cause.
- **Heart structure changes.** ECG results can provide clues about an enlarged heart, congenital heart defects and other heart conditions.

IMPORTANT QUESTIONS:**2M QUESTIONS:**

- 1) Define Heart and its functions.
- 2) Define ECG.
- 3) Define Cardiac Output.

5M QUESTIONS:

- 1) Explain the physiology and anatomy of heart.
- 2) Explain in details about blood circulation of heart with the help of diagram and conduction system of heart

10M QUESTIONS:

- 1) Explain the physiology and anatomy of heart.
- 2) Explain in details about blood circulation of heart with the help of diagram and conduction system of heart