

ECG (ECG or EKG) is a medical technique used to record the electrical activity of the heart. Therefore, ECG is a vital diagnostic tool that can reveal a variety of medical conditions.

**Cardiac hypertrophy (cardiomegaly)** – Atrial or ventricular hypertrophy: The diagram shows changes in the electrical dimensions of the heart, indicating an enlargement.

**Arrhythmia (Arrhythmias)** – Various types of arrhythmia: can include atrial fibrillation, ventricular fibrillation, and early pulses.

**Valvular Heart Diseases** – Narrowing or returning of the valves: Changes in the ECG can reveal excess pressure on the heart as a result of valve defects.

**Respiratory diseases (respiratory diseases)** – Effects on the heart: Diseases such as asthma or chronic obstructive pulmonary disease (COPD) can trigger changes in the ECG.

**Coronary artery disease (coronary artery disease)** – Heart Attack: Planning reveals areas of the heart suffering from ischemia due to blockage of arteries.

**Electrolyte Disturbances** – Changes in potassium and calcium levels: can lead to visible changes in the ECG.

**Congenital Heart Diseases (Congenital Heart Diseases)** – Structural abnormalities: Planning can reveal problems in the cardiac electricity system due to birth defects.

– **Diagnosis:** The diagram shows changes in the pattern of electrical waves, which helps determine the type of arrhythmia.

**Occlusion of arteries (peripheral artery disease)** – The effect of artery blockage on the heart: Changes in the ECG can reveal problems in blood flow.

**Angina pectoris (Angina)** – Chest pain caused by ischemia: Planning shows changes during pain attacks, which helps in diagnosis.

**Examination steps** – **Preparation:** The examination requires the placement of electrodes on the skin.

**Cardiomyopathy** – Different types: such as hypertrophic cardiomyopathy and dilated cardiomyopathy.

**Myocarditis** – **Diagnosis:** The diagram shows signs of inflammation or damage to the heart muscle due to infection or other causes.

**Cardiac Ischemia** – Lack of blood flow: Changes in the ECG can indicate a lack of oxygen in the heart muscle.

**Cardiac arrest (Cardiac Arrest)** – **Instantaneous diagnosis:** In cases of stroke, planning shows sharp changes indicating cardiac arrest.

– **Recording:** Electrical signals are recorded for a short time.

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