Why the doctor gives you an EKG or ECG

An electrocardiogram--abbreviated as either ECG or EKG--is a test that records the heart's electrical activity and turns it into a graph that can be read and analyzed. The electrical impulse that travels through the heart is what causes the heart muscle to contract and pump blood. An ECG is one of the many important tests in medicine because it provides clues to your heart health. It is used to determine if the electrical activity is normal. These recordings can tell you about current heart problems, such as heart rhythm problems, that might require a pacemaker or drug therapy. Or identify problems that occurred in the past, such as an old, and sometimes silent (unnoticed), heart attack, a heart enlargement that can lead to heart failure, and many other important conditions. It also can tell if a heart attack is in progress, so that drugs can be given to reduce heart damage and improve survival.

The ECG is an important part of a complete medical checkup. The test cannot predict your heart's future, but along with a family and personal history, it can help in decision-making to keep you in the best possible health.

When should you have an ECG?

If you are experiencing any chest pains, fainting, dizziness, or shortness of breath, you should consult your doctor right away. He or she may send you directly to an emergency room, where an ECG is one way to determine if you are having a heart attack.
If you are symptom-free, how often you get an ECG will depend on your doctor, who will take into account your history, your age and other heart disease risk factors such as family history, diabetes, and smoking.

The electrocardiogram is a simple, painless and very safe test done while you are lying face up on an examining table. A machine with numerous long cables is nearby. These cables look a lot like electric wires. They allow the signals of your beating heart to be read by the electrocardiograph machine.

To pick up the signals, small plastic tabs (with conductors that contact your skin) are stuck on your skin in at least 10 different spots--on each of your limbs and on six locations around your chest. These patches--actually electrodes that detect electrical current--attach to the cables that lead to the machine; the machine turns the signals into wavy lines that form a graph--a representation of your heart’s electrical activity.

The total examination time, from entering the room until the test is completed, is usually about 15 to 20 minutes. ECG machines often have computerized equipment that can analyze the scan automatically, but doctors always like to check the results themselves. In emergencies, you can get immediate results.

An ECG can provide valuable information that can help your doctor keep you well, and possibly save your life.

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