

Electrocardiogram (ECG or EKG)

What is it?

An electrocardiogram (ECG or EKG) is a test that measures the electrical activity of the heartbeat. The ECG machine may look frightening to you, but it's harmless. Although its name has "electro" in it, it doesn't send electricity into the body. Instead, it *receives* tiny electrical impulses that the beating heart makes and records them in a zigzag pattern on a moving strip of paper.

The test is often performed by a technician who is skilled in doing the test. The technician will place stickers on your arms and legs and over the front of the chest. The stickers are then connected to separate wires or leads that connect to the ECG machine. Once the leads are placed, the test is recorded in seconds. The test itself doesn't hurt — but after the test is done, the technician will remove the stickers, which is similar to pulling off a Band-Aid .

The right and left atria or upper chambers make the first wave called a "P wave" — following a flat line when the electrical impulse goes to the bottom chambers. The right and left bottom chambers or ventricles make the next wave called a "QRS complex." The final wave or "T wave" represents electrical recovery or return to a resting state for the ventricles.

Why is it done?

An ECG gives two major kinds of information. First, by measuring time intervals on the ECG, a doctor can determine how long the electrical wave takes to pass through the heart. Finding out how long a wave takes to travel from one part of the heart to the next shows if the electrical activity is normal or slow, fast or irregular. Second, by measuring the amount of electrical activity passing through the heart muscle, a cardiologist may be able to find out if parts of the heart are too large or are overworked.

Does it hurt?

No. There's no pain or risk associated with having an electrocardiogram. When the ECG stickers are removed, there may be some minor discomfort.

Is it harmful?

No. The machine only records the ECG. It doesn't send electricity into the body.