

Title: The Lack of Evidence to Support Electrocardiography as a Routine Screening Test for Coronary Heart Disease

Author: Steffany Moen, MS4

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Abstract:

The U.S. Preventive Services Task Force recommends not using electrocardiography (ECG) as a test to screen for blockage in coronary arteries, the arteries that supply blood to the heart. It also recommends against using an ECG to predict a person's risk for coronary heart disease.

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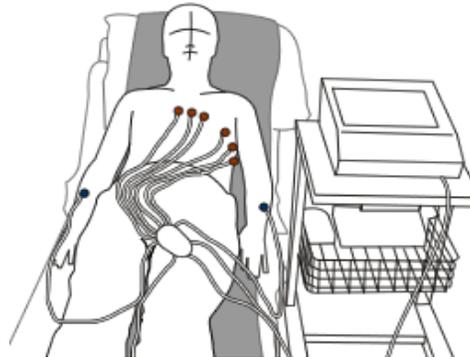
What is an ECG?

Electrocardiography (ECG or EKG) is a test used to monitor the electrical activity of your heart. Your heart has special cells that produce an electrical impulse which causes your heart to beat. This painless test produces a printout of the activity in your heart which a doctor can then use to determine if your heartbeat is normal.



How is an ECG performed?

In order to get the printout of your heart's activity, 10 electrodes will be attached to your body using sticky pads. These sticky pads will be placed on your chest, arms, and legs and then connected to wires called leads. The wires transmit the electrical information to the ECG machine which then produces the printout. While the machine is gathering the information, you will be asked to lie still for a few seconds. All together, the test only takes a couple of minutes to set up and complete.



What information can my doctor get from an ECG?

Specific things doctors look at on an ECG include:

- **Heart rate:** Is your heart beating too fast or too slow? If so, you may need treatment to make your heart beat at a normal rate.
- **Heart rhythm:** Is your heartbeat occurring at regular intervals? If not, you may have a rhythm irregularity known as an arrhythmia.
- **Heart size:** Are there signs that your heart may be enlarged? If so, other tests can be done to figure out why your heart is big.
- **Heart damage:** Are there signs that your heart has been damaged in the past from a heart attack? This information helps determine if further tests or treatment are needed to help prevent more damage in the future.

Why might an ECG be ordered?

There are a variety of reasons why your doctor may want to look at your ECG including:

- **Pre-operative evaluation:** If you are scheduled to have a surgery, often a doctor will order an ECG to make sure your heart is functioning well enough for surgery.
- **Chest Pain:** A doctor can look at an ECG performed while you are having chest pain to see if your heart is not getting enough blood and oxygen. This information helps the doctor decide if you are having a heart attack or a warning sign that one could occur so you get the right treatment.
- **Palpitations:** If you feel that your heart is beating too fast or adding extra beats, a doctor can check an ECG to see if your heart's rate or rhythm is abnormal.
- **Syncope:** If you have been passing out, an ECG can sometimes show evidence that your heart may be causing this to happen.

What does my doctor do with the information gathered from my ECG?

Your doctor will go over your test results with you and then decide if further tests or treatment are needed. Sometimes your doctor may determine that you need an extended ECG, known as a Holter monitor. During this test, you wear the leads and a monitoring device for 24 hours and keep track of any symptoms you may have, such as feeling your heart beat irregularly. Since the test is over a longer period of time, it gives your doctor more information about how your heart rate and rhythm vary during the day.



Prepared by Steffany Moen, MS4
University of Minnesota Medical School
Credits: www.learntheheart.com; www.mayoclinic.com;
http://www.nottingham.ac.uk/nursing/practice/resources/cardiology/function/placement_of_leads.php

Monitoring Your Heart with an ECG

