

Electrocardiogram

(ECG; EKG)

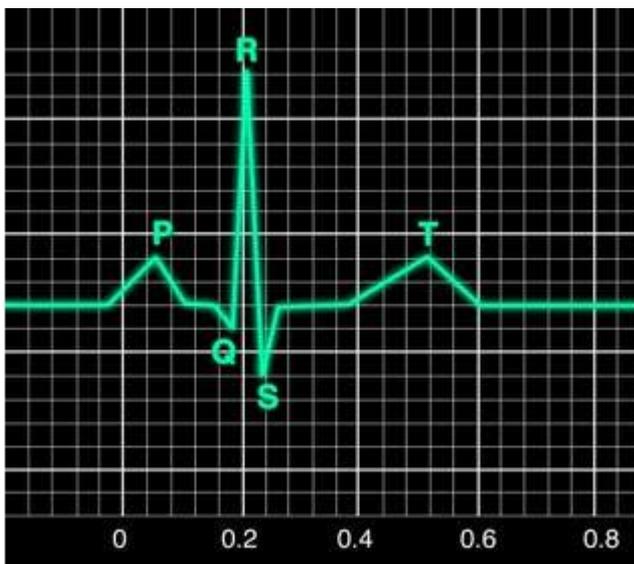
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En Español (Spanish Version)

Definition

An electrocardiogram (ECG or EKG) measures the electrical activity of your heart. The heart generates electrical signal which flows out from your heart through your body. Small electrical sensors, called electrodes, are put on your skin to sense the electricity that began in your heart. The electrical activity is then turned into a graph. This can give doctors an idea of whether your heart is beating normally.

ECG/EKG Waves



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Reasons for Test

An ECG is used to:

- Diagnose heart attacks and rhythm problems
- Offer clues about other heart conditions and conditions not primarily related to the heart
- Detect conditions that alter the body's balance of electrolytes (eg, potassium and magnesium)
- Detect other problems, such as overdoses of certain drugs

Symptoms that may prompt an ECG include:

- Chest discomfort or pain
- Shortness of breath
- Palpitations (fast heartbeats)
- Anxiety

- Weakness
- Nausea or the feeling that you have to vomit
- Abdominal pain
- History of fainting
- Taking certain drugs

An ECG may also be obtained if you:

- Are about to have surgery with general anesthesia—to detect heart conditions that could worsen during surgery and put you at risk
- Are in occupations that stress the heart or where public safety is a concern
- Are an older adult or have diabetes—to obtain a record to compare with future ECGs
- Already have heart disease—to check occasionally for any changes
- Have had a heart-related procedure, such as getting a pacemaker

What to Expect

Prior to Test

You may:

- Have a physical exam and be asked about your medical history
- Have your chest shaved if needed

Description of Test

You will be asked to lie quietly on your back with your shirt off. Six small, sticky pads with attached wires will be placed across your chest. Others will be placed on your arms and legs. The wires will connect to the ECG machine. You will not feel anything during the test.

After Test

You may resume activities as recommended by your doctor.

How Long Will It Take?

3-4 minutes

Will It Hurt?

No

Results

Your doctor will interpret the ECG. Based on the results and your other health information, you may need more tests or a treatment plan.

Call Your Doctor

After the test, call your doctor if you have heart-related symptoms, like chest pain or trouble breathing.

RESOURCES:

American Heart Association
<http://www.americanheart.org/>

American Medical Association
<http://www.ama-assn.org/>

Heart Rhythm Society
<http://www.hrsonline.org/>

CANADIAN RESOURCES:

Canadian Cardiovascular Society
http://www.ccs.ca/home/index_e.aspx/

Heart and Stroke Foundation of Canada
<http://ww2.heartandstroke.ca/splash/>

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Exercise electrocardiogram (stress test). Heart and Stroke Foundation website. Available at: <http://www.health.harvard.edu> . Updated September 2006. Accessed June 4, 2008.

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