

What Is It?

An electrocardiogram (EKG) is a painless process that records the heart's electrical activity. Small metal electrodes are placed on the person's wrists, ankles and chest. The electrical signals travel from the electrodes through wires to the EKG machine, which transforms the signals into patterns or waves. Different waves represent different areas of your heart through which electrical currents flow. The electrical currents stimulate the heart muscles to contract and relax. The P wave represents the current in the upper chambers of the heart (atria); the QRS complex represents current in the lower heart chambers (ventricles); and the T wave represents the heart's brief "rest period" as it recharges electrically (repolarizes) between heartbeats.

What It's Used For

An EKG can be used to evaluate someone with chest pain, people who may be having a heart attack, and those suspected of having coronary artery disease or a cardiac arrhythmia. It also can help to diagnose an inflammation of the membrane around the heart (pericarditis), a blood clot blocking blood flow in a lung (pulmonary embolism), abnormal blood levels of potassium or calcium, or overdoses of certain medications.

How It's Done

You will need to expose the skin above your ankles, wrists and chest. If you need to undress, you will be given a gown. You will lie on an examination table. An EKG technician will clean portions of your arms, legs and chest to remove excess skin oils and sweat. In certain men, a small area of chest hair may need to be shaved.

Next, about 10 small metal electrodes will be attached with sticky pads to various parts of your body, including one on each arm and leg, six across the left side of the chest and, at times, one or more at other sites on the chest, neck and back.

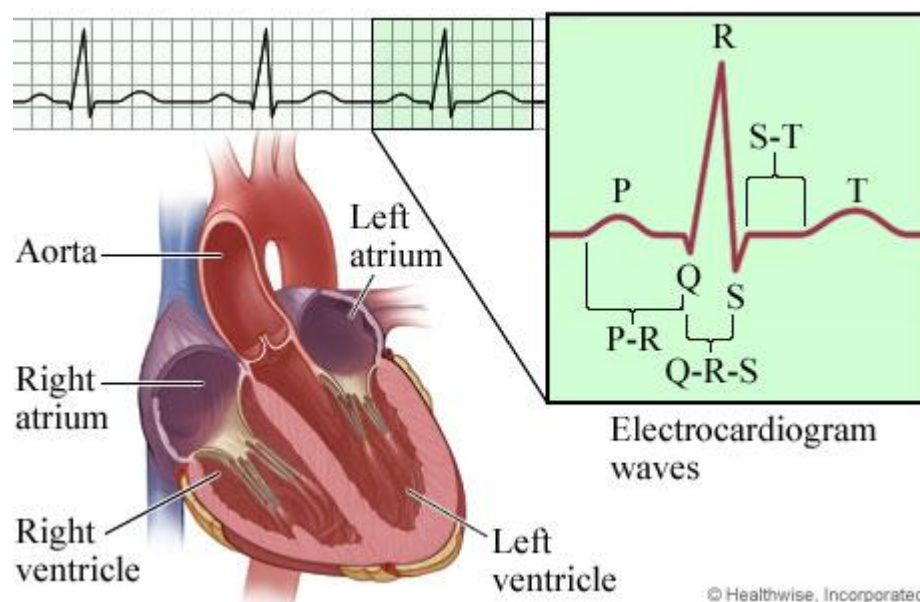
Once the electrodes are attached, you only need to relax as your EKG is recorded. You won't feel anything. Breathe normally, avoid talking and don't make any unnecessary motions. When your EKG is done, the technician will remove the electrodes and you will be allowed to dress. Ask the technician if you need to speak with your doctor before you leave.

Follow-Up

Depending on why your doctor ordered the EKG, he or she may ask to see it immediately. If the EKG is part of a routine physical or preoperative evaluation, then ask the technician whether your doctor will notify you of the result, or whether you will need to call the doctor's office.

Risks

An EKG is considered a safe, routine diagnostic procedure, with no harmful side effects.





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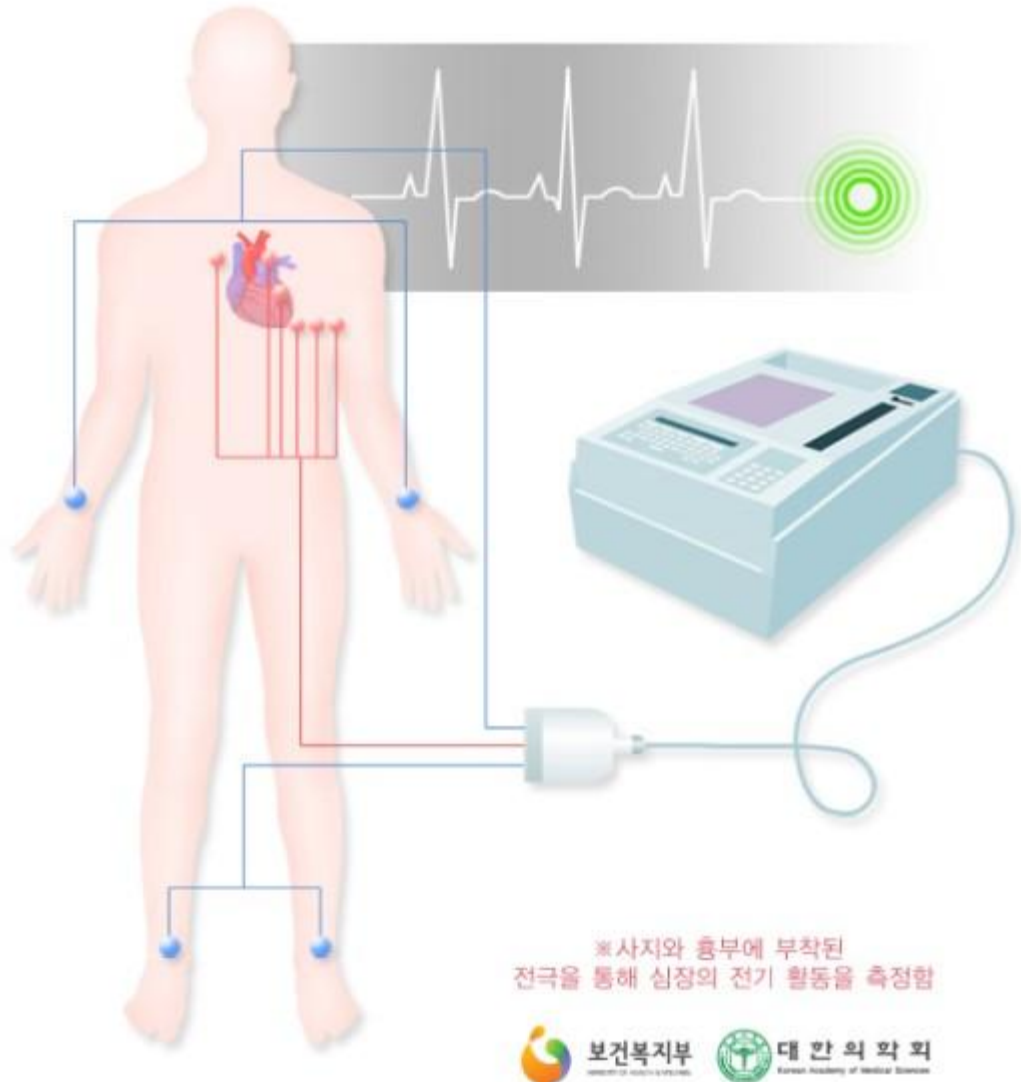
1. 검사 대상과 준비 과정은 어떻게 되나요?

심전도 검사는 [흉통](#), 호흡곤란 등의 증상이 있는 환자나 [고혈압](#) 등과 같이 [심장](#)에 영향을 주는 질환이 있는 환자에서 시행되며, 약물의 작용 정도를 관찰하는데 이용하기도 합니다. 또한 입원 시 수술전 환자에서 기본 검사로 시행되며, 검사전 특별한 준비사항은 없습니다. 검사에 영향을 줄 수 있는 시계나 전자제품 등은 몸에 착용하고 있지 않아야 합니다.

2. 검사는 어떻게 진행되나요?

환자는 침대에 누워 전극을 부착하기 위한 부위의 피부 준비를 합니다. 분비물을 제거하기 위하여 알코올 솜으로 닦아주고, 피부 [모발](#)이 너무 많은 경우에는 면도를 부분적으로 시행하기도 하며, 전기의 전도를 증가시키기 위하여 전극연고나 젤리를 발라줍니다. 표준 심전도 검사의 경우 양팔목, 양발목 및 [가슴](#) 부위 6 곳에 그림 2 와 같이 총 10 개의 전극을 부착합니다. 검사 시간은 5 분 이내로 소요됩니다.

〈그림. 심전도 검사를 위한 전극의 위치〉



심전도 검사를 위한 전극의 위치

출처 [심전도 검사](#) [electrocardiography] (국가건강정보포털 의학정보)