
What is a signal-averaged electrocardiogram (SA-ECG)?

It is a special electrocardiogram (ECG) that records your heart's electrical activity over a period of 10-15 minutes.

A computer scans the heart beat for late electrical activity that occurs after a normal contraction. This late electrical activity is a major cause of abnormal fast heart beats. It is not recorded by a normal ECG.

Why are SA-ECG's done?

To determine which patient's are at high risk for abnormal fast heart beats that may cause sudden cardiac death.

How do I prepare for my SA-ECG?

You will be able to have your regular diet and medication. You will need to wear a hospital gown. You will be taken to the lab by wheelchair or stretcher or the test may be done in your hospital room.

What happens during your SA-ECG?

You will lie on a hospital bed while the test is being performed. It is very important that you lie as still as possible. Breathe normally, but do not talk during the procedure because the computer is very sensitive to movement, coughing, turning, etc.

The technician will explain the procedure to you and place electrodes on your chest and back. This procedure is neither uncomfortable nor painful. It may be necessary to shave excessive chest hair and clean the skin with alcohol before applying the electrodes.

What happens after the SA-ECG?

You will be disconnected from the machine and be able to move. It will take 10-15 minutes for the computer to analyze and print the report. The report is given to your cardiologist to review. The final report is placed in your chart.

The doctor will talk with you about the results of your SA-ECG and determine whether further tests are needed.