

## **STRESS TESTING**

### **EXERCISE STRESS TEST**

Stress Testing is a procedure your cardiologist may use to help diagnose Coronary Artery Disease (CAD) and monitor known Coronary Artery Disease. Signs and symptoms of CAD may be unmasked when exposing the heart to the stress of exercise. Normal coronaries will dilate with exercise giving the heart the blood supply it needs. Narrowed or blocked arteries will not be able to deliver the blood supply the heart needs during exercise also known as ischemia.

During the stress test an EKG is used to help the professionals monitor your heart rate and rhythm while you are walking on the treadmill. Your blood pressure will also be monitored throughout the test.

A stress test can be very helpful to detect certain indications that your heart may not be getting enough blood during exercise. It can detect:

- EKG changes suggestive of ischemia.
- Symptoms such as chest pain or shortness of breath.
- Abnormal changes in your heart rate or blood pressure.
- Abnormal changes in your heart rhythm or electrical conductivity of your heart.

This procedure can either be performed in the physician's office or a hospital. You will be given specific instructions to follow for your procedure by your physician or his nurse.

Your cardiologist will discuss with you and decide, based on your current health condition, which test is right for you.

### **STRESS ECHOCARDIOGRAPHY**

Stress Echocardiography (stress echo) uses ultrasound pictures to help diagnose coronary artery disease (CAD). During the stress echo, the sonographer will take ultrasound pictures of your heart before you exercise and then immediately after you exercise. A stress echo will show your physician how well your heart responds to exercise and how well it squeezes before and after exercise. A stress echo is similar to an exercise stress test, the only difference being the addition of the echo pictures which help to provide more information. Your physician will determine which type of stress test is right for you.

During the stress echo an EKG is used to help the professionals monitor your heart rate and rhythm while you walk on the treadmill. Your blood pressure will also be monitored throughout the test.

This type of stress test is very useful in helping your cardiologist identify:

- Areas in your heart walls that are not contracting properly.
- Ejection fraction (how well your heart squeezes) at rest and after exercise.

- Left ventricular dilation after exercise.

This procedure can either be performed in the physician's office or hospital. You will be given specific instructions to follow for your procedure by your physician or his nurse.

Your cardiologist will discuss with you and decide, based on your current health condition, which test is right for you.

## **NUCLEAR STRESS TEST**

A nuclear stress test uses a special nuclear camera to provide pictures of your heart for your cardiologist to determine the presence of coronary artery disease (CAD). The Nuclear Medicine Technician will take pictures of your heart before you exercise and after you exercise. These pictures will show your physician how much blood flow there is to your heart muscle at various angles. During the nuclear stress test an IV is inserted to provide access for the Nuclear Medicine Technician to inject the radioactive material (nuclear tracer) necessary to provide the pictures of your heart. The amount of radioactive material you are given is safe and not a danger to you or those around you. If you are pregnant you should not have the test because it may pose a risk to your unborn child. A nuclear stress test is similar to a exercise stress test, the only difference being the addition of the nuclear pictures which help provide more information.

There is a non-walking nuclear stress tests (adenosine or dobutamine) that can be ordered by your physician if you are not able to walk on a treadmill. He will decide which test is best for you based upon your current health condition. If you are having a non-walking stress test you will also be given the medication of your cardiologist's choice to exercise your heart. This medication is given through the existing IV. You will be placed in a reclining chair during the stress test instead of walking on the treadmill. On rare occasions you will be asked to walk at a slow pace.

During the stress test an EKG is used to help the professionals monitor your heart rate and rhythm throughout the test. Your blood pressure will also be monitored throughout the test.

This type of stress test is useful in helping your cardiologist identify:

- Areas of decreased uptake of the nuclear tracer
- Ejection fraction (how well your heart squeezes).
- Left ventricular dilation after exercise.

This procedure can either be done in the physician's office or hospital. You will be given specific instructions to follow for your procedure by your physician or his nurse.

Your cardiologist will discuss with you and decide, based on your current health condition, which test is right for you.

