

Nuclear Medicine Treadmill Stress Tests

(Mibi Scan)

What Is A Nuclear Medicine Stress Test?

- A Nuclear Treadmill stress test is similar to a standard treadmill stress test, but provides the doctor with additional information by using an isotope to evaluate coronary blood flow.
- This test is performed in two phases with each phase lasting 30-60 minutes. The patient may be required to return the following day to complete the second phase.
- An intravenous (IV) line will be started in order to inject a very small dose of the isotope at the peak of exercise. The isotope is not harmful to the patient or the heart.
- Electrodes are placed on the chest to record an electrocardiogram (ECG) which monitors the electrical activity of the heart.
- The cardiologist will have the patient exercise on the treadmill, gradually increasing the speed and incline. This may last for up to 15 minutes depending upon the patient's level of ability.
- During the exercise part of the test, the cardiologist will be looking for changes in the ECG pattern and any symptoms that the patient may experience.
- The test will be stopped if the patient becomes too tired, has any symptoms such as chest pain, or when the doctor feels he has gathered the information he needs.
- After the exercise part of the test is completed, a special camera will take pictures of the heart. This usually lasts 20-40 minutes. The patient will lie flat with both arms above his head. A second set of pictures may be required at a later time.
 - These pictures help to show the specific area(s) of the heart that is not getting enough blood and oxygen.
 - The second set of pictures are taken at rest to help evaluate which area(s) of the heart has recovered but is still not getting enough blood and oxygen. An area that has not recovered may indicate scar tissue from a heart attack.

Why Is A Nuclear Medicine Stress Test Done?

- This test will give the doctor the same information as a standard treadmill stress test, plus the following:
 - Which area(s) of the heart is not getting enough blood and oxygen
 - How quickly the heart recovers after exercise
 - Any irregular heart rhythms
 - If the patient has had a heart attack in the past.

What Preparation Is Needed?

- Nothing to eat or drink except water four hours prior to the test.
- Do not smoke at least four hours prior to the test.
- It is important for the patient to ask his doctor:
 - How to adjust his insulin and food intake prior to the test if he is diabetic
 - If he should take his regular medications the morning of the test
 - If he is on a Beta Blocker, can he stop taking this medication 72 hours before the test as this is recommended for best results
- Do not apply any lotions, oils or powders to the chest area.
- Wear comfortable clothing (shorts or pants with shirt or blouse) and walking or athletic shoes