



What is a Nuclear Stress Test?

A nuclear stress test is a diagnostic test used to examine the anatomy and function of the heart. Coronary arteries are best evaluated by determining the changes in blood flow to the heart during exercise because your heart has to work harder than normal. We offer treadmill and medication-induced (Adenosine or Dobutamine) nuclear stress testing. In all cases, the purpose is to increase the workload being placed on your heart in order to check its function.

If you are pregnant, trying to get pregnant, don't know if you are pregnant or not, or breastfeeding, please inform one of the staff. This test may not be appropriate for you.

Why is this test done?

These are some of the more common reasons:

- Diagnose coronary artery disease, a condition that results in ischemia (blockage or impairment of blood flow to the heart muscle).
- Check the effectiveness after bypass surgery or angioplasty.
- Evaluate your heart prior to surgery.
- Determine the amount of permanent damage caused by a heart attack and evaluate the remaining healthy muscle.

During the Exam – What to Expect:

- You will be asked to remove clothing above the waist; you will be provided with a shirt.
- An IV will be started in your arm and a small dose of radioactive solution will be injected. The radioactivity is a very small amount (the exposure is equivalent to that of a chest x-ray) and will not have any effect on you.
- You will lie on a scanning table and a special camera (gamma camera) will be positioned close to your chest to take pictures of your heart. This part of the test evaluates blood flow to your heart muscle at rest and takes approximately 15 minutes.

- Electrocardiogram (ECG) patches will be placed on your chest. For men, shaving the chest may be required.
- A blood pressure cuff will be placed on your arm so that you can be monitored before, during and after the stress test.
- Depending on the type of exam your doctor ordered, you will either be exercising several minutes on a treadmill or you will be injected with a prescribed medication (Adenosine or Dobutamine) over a period of several minutes.
- Your blood pressure will be checked intermittently. Tell the nurse or technologist if you experience any symptoms such as chest pain, dizziness, weakness, lightheadedness or leg fatigue.
- Near the end of the exercise or injection period, and depending on your blood pressure and/or heart rate, the technologist will inject the same radioactive agent again.
- After stopping 'exercise', you will continue to be monitored until your heart rate and blood pressure return to pre-exercise/injection levels.
- Finally, you will lie on an examining table and the gamma camera will again obtain images of your heart.
- The entire exam will take approximately two and a half to three hours.

After the Exam:

- A cardiologist will review the images of your heart and prepare a diagnostic report to share with your doctor.
- Your doctor will consider the nuclear stress test images in the context of your overall care and talk with you about the results.
- Results are routinely available to your physician within three days of the test. In the setting of an abnormal test, your physician may contact you sooner.