



Cardiac Nuclear Imaging

Tracking Blood Flow through your Heart Muscle

What is Cardiac Nuclear Imaging?

A Nuclear Stress Test evaluates the adequacy of the blood supply to the heart muscle. Coronary artery disease (CAD) is the narrowing (stenosis) of the arteries that supply the heart. The narrowing is frequently caused by a build up of fatty deposits (plaque) on the inside of the artery. Stenosed arteries reduce blood flow; which reduces the amount of oxygen and other nutrients the heart receives. Without proper nutrients, the health of the heart suffers. An unhealthy heart cannot pump efficiently, which may lead to chest pain (Angina) or other symptoms. However, there may not be any physical signs of the problem. A thallium stress test is a very useful diagnostic tool in detecting the presence of CAD.

Before Your Test

1. Do not eat for at least 4 hours before your test (you may take your medications with sips of water, unless your medication is listed below).
2. If you are insulin dependent, or take pills for your Diabetes, you may eat a small breakfast, enough to take your insulin injection or to take your pills without a reaction from having low blood sugar.
3. Do not take the following medications on the day of your test. You may take all other medications, except those mentioned here:

* Lopressor/ Metoprolol
* Toprol XL
* Tenormin/ Atenolol

* Inderal/ Propranolol Hct
* Normodyne/ Trandate
* Corgard

* Calan/ Verapamil
* Cardizem/Diltiazem
* Theodur

4. Please wear a button-down shirt that does not contain any metal buttons or zippers, or any other metal objects (this includes bras with metal under wires). Wear a comfortable, secure pair of shoes suitable for walking on a treadmill. Please do not wear sandals or backless shoes.
5. The test will take approximately 4-6 hours to complete. Please plan accordingly.
6. Please bring all of your current medications, and your insurance information.
7. If you are a female under 50 years old and there is a possibility you may be pregnant, this test CANNOT be performed. Please notify the office 24 hours prior to the test date to cancel.
8. Cancellations must be made 24 hours prior to the test or you will be charged for the cost of the isotope (\$200), which must be ordered 24 hours in advance.
9. If you have had radioisotope therapies within the past 3 months or other nuclear scans, not including MRI's and CT scans, please notify us.

About the Test

A small IV will be inserted in either your hand or your arm in order to administer the isotopes used in the imaging. The IV will be removed upon completion of the procedure.

There are three portions to the test: two imaging and one exercise portion. Tracer will be administered shortly after your IV has been started. It takes approximately 45 minutes for the Tracer to circulate. Following this time period, the first imaging portion will take place. During this portion of the test, you will rest on your back with your left arm comfortably extended above your head. For approximately 15 minutes, images of the blood flow of your heart will be taken by a special camera. It is important that you lie still during this procedure to ensure the best possible images.

Following the first imaging procedure is the exercise portion. You will either be walking on a treadmill or receiving chemical (Adenosine) that induces exercise-like responses within your body, depending on what your doctor has ordered. Electrodes will be placed on your chest and you will be monitored on an EKG throughout the test.

*Treadmill: The exercise will begin at a slow pace and gradually increase every 3 minutes (average walking time is 7-8 minutes). You will continue walking until you reach 85% of your maximum heart rate. At this point, the second isotope, Myoview, will be injected and the test will be concluded. Your IV

will be removed and you will then be allowed to have a snack and take your prescription medication.

* Adenosine: you will be lying on the exam table during the chemical infusion, which takes approximately 6 minutes. The second isotope, Myoview will be injected halfway through at 3 minutes, it is very important that you let us know of any symptoms that you may experience. Upon completion of the procedure you will then be allowed to have a snack and take your prescribed medication.

The final portion is a second imaging procedure, similar to the first

Note: “Radio tracers do not cause any side effects or reactions”

Report Any Symptoms

Be sure to tell the doctor if you feel any of the following during the test:

- Chest, arm, or jaw discomfort
- Severe shortness of breath
- Dizziness or lightheadedness
- Leg cramps or pain

After Your Test

Before going home, ask when you may eat. Also, find out when to resume taking any medications you were told to skip before the test. If you need to return for resting scans, follow any instructions. Most people can go back to their normal routine as soon as all parts of the test are finished.

Your Test Results

Your doctor will discuss the test results with you during a future office visit. The test results help the doctor plan your treatment and any other tests that are needed.