



## Nuclear Stress Test

### What is a Nuclear Stress Tests?

A nuclear stress test is an imaging procedure in which a small amount of radioactive material is injected into a vein. (The radioactive material does not harm your body or organs.) A special camera and a computer take pictures of the heart.

### What is a nuclear stress test for?

A nuclear stress test helps your cardiologist assess the function of your heart and the flow of blood to the heart muscle. Nuclear medicine tests may identify whether more investigation is needed into signs and symptoms of heart disease and aid in diagnosing and treating your condition.

### How is a Nuclear Stress Test performed?

The test is actually divided into three parts: (1) Imaging at rest, (2) an exercise or pharmacological stress test, and (3) imaging after exercise. The radioactive material used is technetium (which is marketed under the Trade names "Cardiolite" and "Myoview"). Resting images are obtained before stress but may be obtained one to two hours after stress. The total test time is 2-4hours.

### How do I prepare for the test?

- Do not eat or drink for three hours prior to the procedure. No caffeine or decaffeinated products. This reduces likelihood of nausea that may accompany strenuous exercise after a heavy meal. Diabetics, particularly those who use insulin, will need special instructions from your doctor's office.
- Wear comfortable clothing and shoes that are suitable for exercise.
- Do not wear powders, perfumes, colognes, oils or lotions.
- No smoking four hours prior to the test, as it may interfere with results.
- An explanation of the test is provided and the patient is asked to sign a consent form.

Do not take the following heart medications on the day of your test unless your cardiologist tells you otherwise or if the medication is needed to treat chest discomfort:

- Isosorbide Dinitrate (for example: Isordil, Sorbitrate)
- Isosorbide Mononitrate (for example: Ismo, Imdur)
- Nitroglycerin (for example: Deponit, Nitrostat)
- Beta blockers (for example: Lopressor, Metoprolol, Atenolol)

Your cardiologist may also ask you to stop taking other heart medications on the day of your test. If you have any questions about your medications, ask your physician. Do not discontinue any medication without first talking with your cardiologist.



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## What happens during the nuclear stress test?

When you enter the Stress Testing room, the Cardiology Nurse will have you sign a consent form and he/she will make sure you understand the test. An IV will be started in a vein in your arm. The Nuclear Medicine Tech will put your first injection of Thallium through the IV. You will wait approximately 30 minutes to let the myoview circulate to your heart.

Once your waiting period is over, the Nuclear Medicine Tech will put you under the camera for about 15 minutes. You will lay on your back on a table with your arms up and hands behind your head. It is important for you to remain very still while the images are being taken. The camera will move about you but never come in contact with you during the scan. Following the completion of the scan, you will be escorted to a Stress Testing room, where you will be prepped for the stress portion of the test. A bag of normal saline may be attached to your IV. The chest will be abraded with alcohol and a cloth. If you have a hairy chest, patches will be shaven. Ten electrode patches are placed on your chest and torso. Wires will be attached to the electrodes in order to monitor your heart rate and EKG. A resting EKG and blood pressure are recorded. Once the Cardiologist arrives in the room, your stress test will begin.

The exercise will begin with a slow walk, then steadily the speed and incline will change to increase the workload on the heart. If at any time you feel faint, fatigue, short of breath, or experience chest pain, IMMEDIATELY alert the doctor and the test will stop. EKG measurements will be taken continuously while you are exercising. Once you have reached a pre-determined, optimum heart rate (based on height, weight, gender, etc.), the procedure will end. For pharmacological stress tests, the prescribed medicine is given via the IV to simulate the effects of stress. You will then relax in a "cool down" period, while EKG measurements continue to be taken.

## How long does the nuclear stress test take?

A patient should allow approximately two to four hours for the entire test, including the preparation.

## How safe is a Nuclear Stress Test?

The patient is exposed to a very small amount of radiation and the risk is minimal, if any. The risk of the stress portion of the test is very small and similar to what you would expect from any strenuous form of exercise (jogging in your neighborhood, running up a flight of stairs, etc.). As noted earlier, experienced cardiologist, registered nurse and/or EKG technician are in attendance to manage rare complications like sustained abnormal heart rhythm, unrelieved chest pain or even a heart attack.

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