

What is a Nuclear Medicine Stress Test?

A Nuclear Medicine Stress test is used by doctors to evaluate the health of your heart by measuring the blood flow that it receives. People who receive this exam may have symptoms and/or risk factors for heart disease. The results of this exam will help your doctor determine if you should have follow-up treatment. If you are already being treated for a heart-related condition, the results of this exam can also be used to help your doctor manage your treatment.

What is heart disease?

Heart disease can be described as a narrowing of the vessels that supply blood to your heart. This narrowing can be caused by a build-up of plaque (fatty deposits). When this happens, blood cannot flow through the vessels normally. Consequently, your heart may not get the oxygen and nutrients it needs.

A reduction in blood flow to your heart may cause:

- Chest pain
- Shortness of breath
- Back, neck, jaw, or stomach pain
- Cold sweats, nausea, lightheadedness

If you have any of these symptoms, please tell your physician.

How is a Nuclear Medicine Stress Test performed?

Trained medical personnel will be with you throughout the exam. You will be asked questions about your medical history.

- An IV line will be placed in a vein in your arm to allow administration of medication during the exam.

- Small pads called electrodes will be placed on your chest so that the medical team can monitor the electrical activity of your heart.
- A small amount of a radiopharmaceutical will be given through your IV line that will allow the nuclear medicine camera to take pictures of your heart.
- The amount of radiation exposure you receive is considered safe by the National Council on Radiation Protection and Measurements.
- You will have to wait at least 45 minutes for the radiopharmaceutical to circulate through your system before taking your first set of images.
- The nuclear camera will take pictures of your heart in two phases: a *resting phase* and a *stress phase*. The order in which these phases occur will be determined by the supervising doctor. The stress phase will occur after the exercise or pharmaceutical portion of your exam.
- These phases are then compared to allow for the assessment of blood flow through your heart and/or to look for prior damage to the heart muscle.

How long does the procedure take?

Most nuclear medicine stress test are completed in about 3-4 hours.

How should I prepare for the procedure?

Your doctor will advise you regarding any particular preparations you may need to make prior to your exam. Here are a few general guidelines:

- Do not to eat or drink anything except for water for six hours prior to your exam.
- Do not to have any caffeine products for 24 hours before your exam. This includes coffee,

tea, chocolate, as well as any decaf products.

- You will be asked if you have any allergies. Please be prepared to discuss this with the supervising doctor.
- Wear comfortable clothing and leave your jewelry at home.
- Bring a list of all your medications with you to the exam. Certain medications may alter the results of this exam; such as beta blockers, dipyridamole and aggrenox. Please speak with your referring Cardiologist regarding these medications.

It is very important that you check with your doctor BEFORE discontinuing any medications.

What is the Stress portion of the procedure?

The stress phase of the exam is usually performed either using a treadmill (average length on the treadmill is about 6-9 minutes) or with a pharmaceutical that makes your heart respond as if you were exercising. This pharmaceutical is given through an IV line while an electrocardiogram (ECG) is performed to monitor your heart.

It is important to let the healthcare professional know if you experience chest pain, shortness of breath, palpitations, headache, dizziness, lightheadedness, or a flushing feeling during the test.

How do I receive the results of my exam?

A doctor trained in the interpretation of nuclear medicine stress test will review the pictures of your heart and send a report to the doctor who asked you to have the exam.