



NUCLEAR STRESS IMAGING

What it is

This is a stress test, which helps to indirectly assess blood flow into the heart muscles. It aids in the diagnosis of coronary artery disease. It is also known as radionuclide myocardial perfusion imaging (MPI), SPECT or Myoview. This test involves a small amount of radiation exposure (equivalent to an abdominal CT scan) and this is cleared by the kidneys in 24-72 hours. The test is considered safe and it is very sensitive to detect coronary artery disease (CAD).

There are two types of nuclear stress test. One that involves exercising on a treadmill and another involves administering a medication (dipyridamole) to simulate exercise. It is up to the ordering physician to decide which type is more suitable for the patient based on exercise ability.

Performance/Preparation

1. Patients are advised not to eat or drink 8-12 hours before the test.
2. All caffeinated products should be avoided for at least 24 hours prior to the test. These also include green tea, chocolate, pop, energy drinks and Tylenol #3.
3. Patients are usually advised not to take their medications the morning of the test, unless instructed otherwise by their physicians.
4. Patients are advised to bring all their medications with them.
5. Wear comfortable clothing and shoes if you will be exercising on the treadmill
6. The test is usually avoided in pregnant women.

Duration

The test may take up to 2-4 hours to complete and is typically done in two days. The first day involves the stress component and will be supervised by a cardiologist. The second day is for the resting images.

Medications

In general, you are asked to hold your medications for the test but your cardiologist may want to perform the test on your usual medications. This should be outlined in the requisition for the test. The rules for avoidance of caffeine and caffeine-containing products (e.g. Tylenol #3) still apply.

Driving

There are no restrictions to private or commercial driving following a nuclear stress test.