

**Cardiovascular Imaging at AICD**  
**211 Mountain Avenue, Springfield, New Jersey 07081**

**Myocardial Perfusion Imaging Testing (Nuclear Stress test) Information Sheet**

A Stress/Rest Myocardial Perfusion Imaging (MPI) Study is a type of stress test that uses PET or SPECT imaging of a patient's heart before and after exercise to determine the effect of physical or pharmacologic stress on the flow of blood through the coronary arteries and the heart muscle.

The three-dimensional images produced by this study are called perfusion images because they show which areas of the heart muscle are perfused, or supplied, with blood.

The stress/rest MPI may also be referred to as a cardiac or nuclear stress test, a thallium scan or a sestamibi cardiac scan.

**A physician may perform a Stress/Rest MPI study to:**

- assess the overall function of the heart muscle and the function of individual muscle walls
- assess damage to the heart muscle following a heart attack
- diagnose symptoms of coronary artery disease(CAD), such as shortness of breath or chest pain. Abnormal perfusion scans are highly indicative of CAD
- determine the extent of coronary stenosis, a narrowing of arteries that supply blood to the heart
- determine whether a patient is a candidate for revascularization, a surgical procedure that restores blood flow
- manage the treatment of coronary artery disease by evaluating the results of:
  - revascularization procedures, such as stenting or bypass surgery
  - medical or drug therapy.

**How this test is performed:**

An intravenous (IV) line will be placed in your arm which will be injected with a very small amount of radioactive material(isotope). This radioactive material helps the physician visualize the heart and its blood supply. The rest images will then be obtained by placing you under a gamma camera. This camera will be close to your chest and take approximately 10 minutes.

For the exercise portion of the test, the patient is asked to walk or run on a treadmill in order to elevate the heart to its peak rate. Patients who are unable to exercise are given a drug that will stress the heart instead (called a pharmacologically induced stress test). The patient's heart rate and blood pressure are monitored during this phase of the test with electrodes which will be placed on the chest. A physician, physician assistant or nurse practitioner will be present to monitor this portion of the test. While the "stress" portion is being performed a second injection of isotope will be injected in the IV. This isotope will highlight the blood supply to the heart in the same manner as the rest study. After about an hour of circulation time the second set of images(stress images) will be taken, again lasting approximately 10 minutes.

Images will be reviewed by one of our Nuclear Cardiologists and the results will be sent to your primary care physician. Patients will be notified of results within 1 week of testing.



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**Instructions for Nuclear Stress Testing**

**IMPORTANT: If you are PREGNANT , think you are PREGNANT or BREASTFEEDING you must discuss this with your physician before undergoing this test.**

- **NO CAFFEINATED OR DECAFFEINATED PRODUCTS - 24 hours prior to testing – this includes, coffee, tea, soft drinks, headache medications and chocolate.**
- **Please make sure you are WELL HYDRATED prior to the exam. There is no restriction on water intake.**
- **No FOOD 4 hours prior to the exam.**
- **Wear walking shoes or sneakers – NO flip flops or heels.**
- **Wear loose fitting comfortable clothing appropriate for exercise. NO shirts with metal beads or zippers as they will interfere with the imaging studies.**
- **No lotions, oils or powders on the chest area.**
- **Please confirm with your physician which, if any, medications should be taken the day of testing.**
- **No alcohol or sedatives at least 4 hours prior to the test.**
- **Please bring a snack and drink. You will be instructed when this is allowed to be consumed.**
- **Please arrive 15 minutes prior to scheduled testing time to complete the check in process. If you are more than 15 minutes late you may need to reschedule.**
- **The test will approximately take 3 hours.**

**24 hour notification is required if you need to cancel your appointment. If you fail to do so, you will be billed a \$100 cancellation fee for the cost of the isotope.**