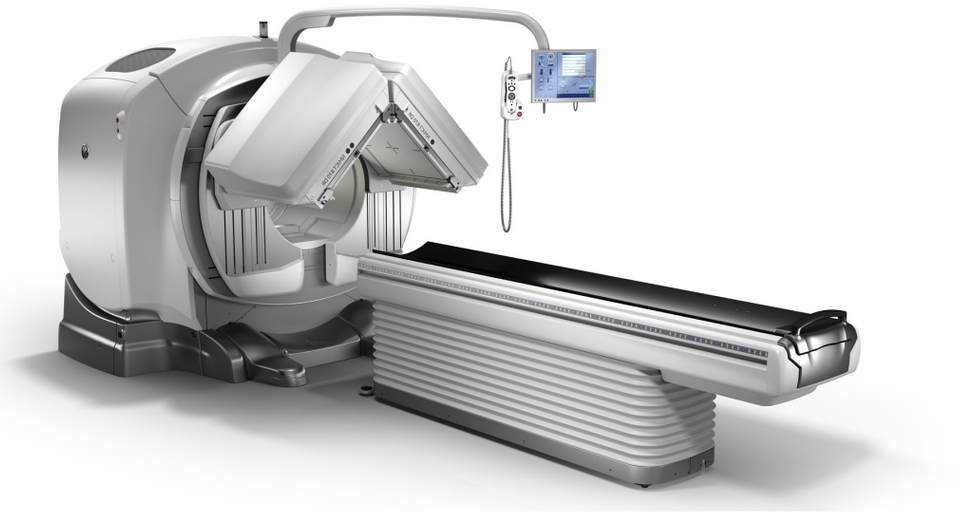


MAYFAIR DIAGNOSTICS

NUCLEAR MEDICINE MYOCARDIAL PERFUSION IMAGING (MPI)

Myocardial Perfusion Imaging (MPI) with exercise stress testing is a non-invasive way to detect and assess for coronary artery disease by evaluating myocardial blood flow at rest and during stress. This study combines physiological exercise with radionuclide imaging to provide valuable information on cardiac perfusion and function.

Clinical indications:

- Diagnosis of coronary artery disease.
- Evaluation of extent/severity of known coronary disease.
- Evaluation of cardiac function.
- Investigation of patient with multiple risk factors.
- Pre-op assessment.
- License qualification, third-party medical, fitness to work testing.

Procedure Overview:

Rest Imaging *(Day 1)*

- Injection of radioactive tracer (Tc99m Tetrofosmin).
- SPECT/CT Rest imaging is performed 45 minutes after patient eats.
- Imaging takes 15 minutes to assess blood flow to heart at rest.
- Appointment takes 1 hour.

Stress Imaging *(Day 2)*

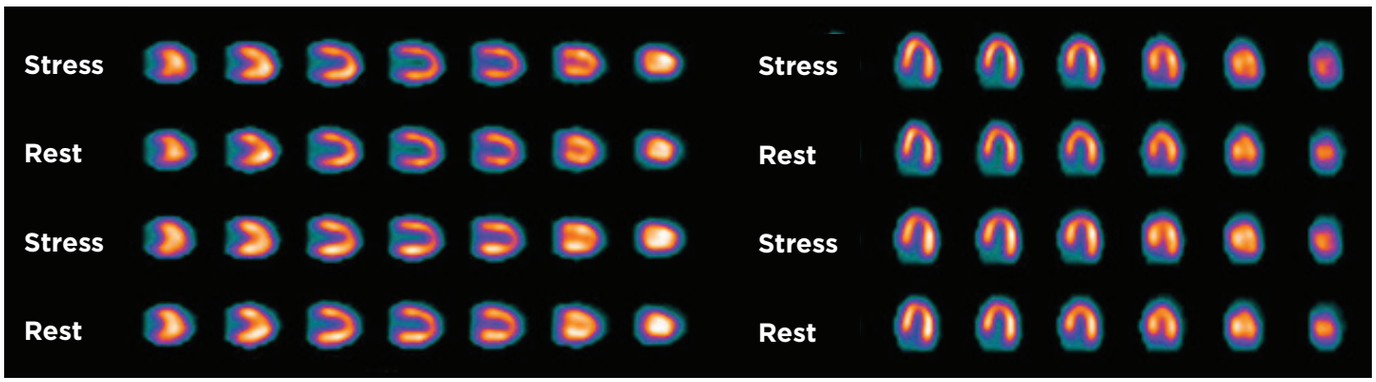
- Consult with internal medicine physician prior to exercise stress test.
- Exercise stress test following Bruce protocol to target heart rate.
- Injection of radioactive tracer (Tc99m Tetrofosmin) at peak exercise.
- Pharmacologic stress (Persantine) is done if exercise is not possible.
- SPECT/CT Stress imaging to assess blood flow to heart at stress.
- Appointment takes 1-2 hour.

CONTINUED

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Normal MPI study



Abnormal MPI study

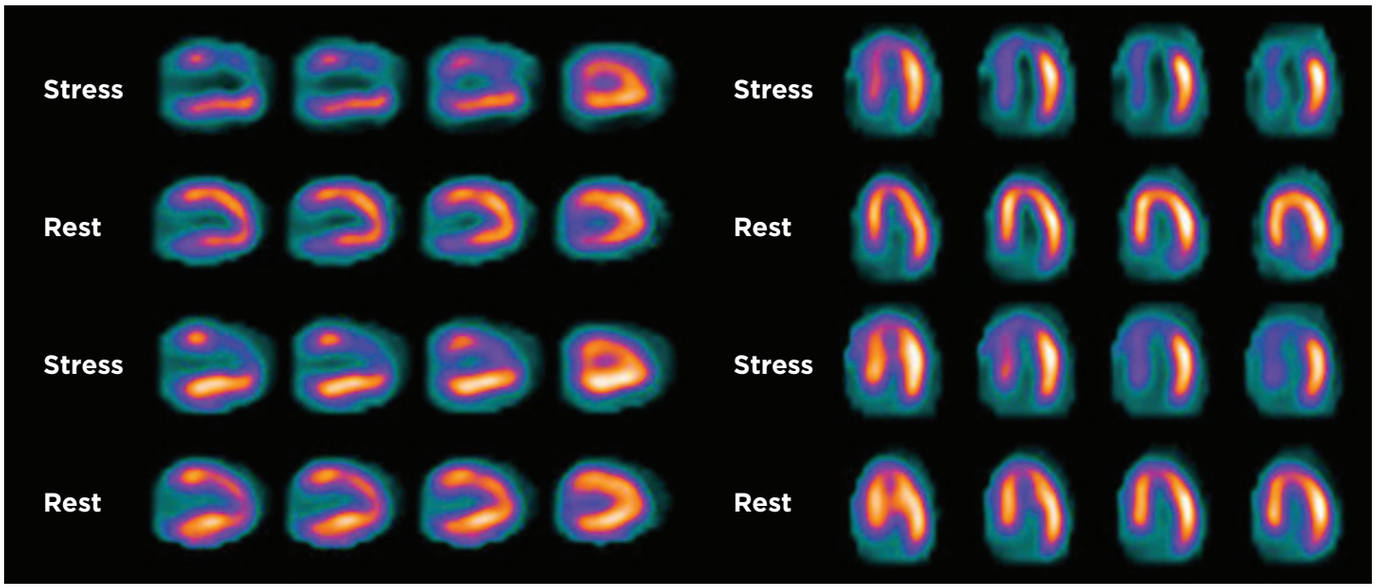


Image Interpretation

- Comparison of rest and stress images to differentiate between ischemia (reversible defect) and infarction (fixed defect).
- Left ventricular function and ejection fraction (EF).
- Wall motion assessment.
- Impression with recommendations from nuclear medicine physician and internal medicine physician.
- Patients identified as high risk will consult with the internal medicine physician and additional evaluations may include CT Coronary Angiography, Echocardiograms, and medical therapy.

Patient Preparation

- Fasting 4 hours prior to injections.
- Avoid caffeine for 24 hours prior to stress test.
- Withhold beta-blockers and calcium channel blockers 48 hours prior to stress test.
- Bring food (sandwich or muffin) on both days – after injection patients can eat.
- Patients are advised of these prep instructions at the time of booking their exam.

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DIAGNOSTICS

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