

## **Nuclear Medicine: Myocardial Perfusion (a.k.a. Cardiolite Stress Test)**

To Schedule: (319) 861-7778

Questions about Procedure: (319) 398-6050

### **What is a Myocardial Perfusion?**

The myocardial perfusion scan is an image of the blood supply to the heart muscle. This helps your doctor diagnose the presence and/or extent of coronary artery disease.

The scan is made by injecting a small amount of radioactive tracer (cardiolite) into a vein. The tracer circulates in the blood and accumulates in the heart muscle. The amount of tracer taken up by the heart muscle depends on the blood supply. The greater the blood supply, the greater the amount of the tracer in the heart muscle.

Exercise increases the blood flow through normal coronary arteries, but not through partially or totally blocked coronary arteries. If you are unable to walk on the treadmill due to physical limitations, your doctor may ask that the procedure be done using an intravenous medication, which stimulates your heart to produce the same effect as exercise.

### **Preparation:**

1. You should not drink or eat anything for two hours before the procedure. You will be asked to eat after certain parts of the testing.
2. You should have no caffeine for 24 hours before your appointment. Please note: "no caffeine" includes decaffeinated products, chocolate, tea and cola. If you are diabetic or hypoglycemic, ask your doctor for special instructions.
3. Your doctor may decide to temporarily discontinue certain medicines before the stress examination. Some medicines may affect the results.
4. Do not smoke 4 hours prior to the exam. This also includes nicotine patches.
5. If you will be exercising on the treadmill, wear comfortable street clothes, a pair of walking shoes and socks.

### **PLEASE BRING THE FOLLOWING TO YOUR APPOINTMENT:**

**A PHOTO ID TO VERIFY YOUR IDENTITY**

**A LIST OF CURRENT MEDICATIONS YOU ARE TAKING**

### **Procedure:**

When you are scheduled for your myocardial perfusion study, you should allow approximately two hours for each day you are scheduled.

### Step 1:

An IV will be started in your arm. A dose of radioactive tracer is given at rest. The tracer travels through the body and concentrates in the heart, behaving like the nutrients normally used by the heart. After the injection, you will be asked to eat and drink at least 16oz of water and return 45-60 minutes after injection. Rest imaging lasts approximately 20-30 minutes. You will be connected to 3 EKG leads that will trigger the camera to image.

### Step 2:

To exercise your heart, one of three possible methods will be used depending on your doctor's order.

#### Treadmill:

You will walk on the treadmill to reach a predetermine heart rate. During treadmill exercise, you may experience shortness of breath, fatigue or chest discomfort. It is important to reach the predetermine heart rate. Stress imaging is performed immediately afterwards and lasts 20-30 minutes.

#### Adenosine Infusion:

A medication called Adenosine will be given through your IV for 5-6 minutes. During this time, you may experience shortness of breath, chest discomfort and/or a warm flushed feeling. These symptoms will subside two to three minutes after stopping the medication.

Any patient with a history of asthma should talk with his or her doctor before the Adenosine is given. All Aminophylline or Theophylline preparations (i.e. Theo-Dur, Slo-Bid, etc.) must be held for 24 hours before the infusion. This should be discussed with your doctor. Stress imaging begins 45-60 minutes after the medication is given. You will be asked to eat and drink at least 16oz of water during this time. The imaging lasts 20-30 minutes.

#### Dobutamine Infusion:

A medication called Dobutamine will be given through your IV to reach a predetermine heart rate. During this time, you may experience shortness of breath and feel your heart racing.

Patients who are regularly taking beta-blocker medication (i.e. Lopressor, Tenormine, etc.) should not take them for 24 hours before the exam. This should be discussed with your doctor. Stress imaging begins 45-60 minutes after the medication is given. You will be asked to eat and drink at least 16oz of water during this time. The imaging lasts 20-30 minutes.

During the “exercise phase”, you will be monitored with electrocardiogram (ECG), blood pressure and oxygen monitors. Your doctor can stop the procedure at any time if more medical attention is needed.

**Parking/Registration:**

Park in the Mercy Medical Center 10<sup>th</sup> Street Parking Ramp, located at the corner of 10<sup>th</sup> Street and 8<sup>th</sup> Ave. SE. You will be pre-registered, so you can proceed to **Ground (G)** level and follow the signs to “Radiology (X-Ray),” also located on Ground (G) level.

**Procedure Results (Who interprets the results):**

A radiologist will review the images shortly after the exam is completed. A written report will be sent to your doctor. Your doctor will discuss the results with you. Please allow your physician time to review these results, usually 2 business days after the exam.

**Your appointment date and time:**

Procedure date: \_\_\_\_\_

Procedure time: \_\_\_\_\_ (Please arrive 15 minutes early)