

UnityPoint Health - Finley Hospital Radiology Patient/Family Information

Nuclear Medicine Myocardial Perfusion Scan (Cardiac Perfusion/Cardiolite Study)

What is a Myocardial Perfusion Scan?

The myocardial perfusion scan is an image of the blood supply to the heart muscle. Myocardial perfusion scans can detect areas of inadequate blood supply to the heart muscle. This helps your doctor diagnose the presence and extent of coronary artery disease, the type of disease that causes heart attacks.

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 blood supply. The greater the blood supply, the greater the amount of the tracer in the heart muscle. Radiation from the tracer is detected by a specialized gamma camera. With the help of a computer, images of the heart can be constructed. These images show the distribution of blood to the heart muscle. From these images, the flow of blood in the coronary arteries can be determined.

The radiation exposure from the study is quite minimal and causes no risk to your health.

This test may include exercise on the treadmill. 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.

Special Note

If you are nursing or if you think you may be pregnant, tell your doctor before the examination. If you have a history of asthma, be sure to communicate this to your physician.

Preparation

Please bring your medication list with you to your exam.

You should not smoke or eat anything for two hours before the procedure. 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.

Your doctor may decide to temporarily discontinue certain medicines before the stress examination. If you are taking heart medication, your doctor may want to see how well your heart works without it. Some medications may affect the results. If you will be exercising on the treadmill, wear or bring with you comfortable street clothes, a pair of walking shoes and socks.

What Happens During the Test?

When you are scheduled for your myocardial perfusion study, you should allow approximately 3 hours.

Step 1: A dose of radioactive tracer is injected in a vein in your arm. The tracer travels throughout the body and concentrates in the heart, behaving like the nutrients normally used in the heart. Rest imaging begins 60 minutes after the injection and lasts approximately 15 minutes.

Treadmill: You will walk on the treadmill to reach a predetermined heart rate. During treadmill exercise you may experience shortness of breath, fatigue or chest discomfort. Tell the doctor, nurse or technologist if you have any symptoms. It is important to reach a maximum heart rate - a second dose of radioactive tracer will be injected through your IV and you will walk 1 more minute. Stress imaging begins shortly after the treadmill stress and lasts 10-15 minutes.

Adenosine Infusion: A medication called Adenoscan will be given through your IV for 4 minutes. During this time, you may experience shortness of breath, chest discomfort and/or a warm flushed feeling. Tell the doctor, nurse or technologist if you feel any symptoms, they should be gone two to three minutes after stopping the medication. A second dose of radioactive tracer will be injected through your IV.

Stress imaging begins 30 minutes after the medication is given and lasts 10-15 minutes.

After the Test

You may go back to your usual diet and activity once the scan is finished.

When Will I Know 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 the time needed to review these results.

Name: _____

Exam Date/Time: _____