

If there is a chance that you could be pregnant, or if you are breastfeeding, please tell the tech.

Pharmacologic Cardiac Perfusion Imaging: Nuclear Cardiology

A pharmacologic (medication) cardiac perfusion test checks the blood flow to your heart. This test can detect coronary artery disease (CAD), a blockage in the blood vessels to the heart.

It also can show how severe the blockages are. This exam is done most often for patients who should not exercise or have difficulty with exercise.

The test consists of 2 separate sets of pictures. The first set is taken when you are at rest. The second is done after a medicine is used to briefly change the blood flow to your heart, that mimics the way blood flow changes during exercise.

The test uses a small amount of 2 radioactive tracers to show the blood flow (perfusion) to the heart muscle. The amount of radiation used in this test is small and well within limits that are not harmful. Your total test time is 3½ to 4 hours long.

Before the Test

Medications

- If you take theophylline, dipyridamole, Aggrenox® and/or Trental® (pentoxifylline), check with your doctor. These medications cannot be taken for 24 hours prior to the test.
- If you are diabetic and taking insulin, you will be given special instructions regarding your medication. All other medications may be taken with water.

Diet

- You may eat a light meal at least 2 hours before your appointment time.
- No caffeine is allowed for 12 hours prior to the test. This includes coffee, tea, cola, chocolate or any medications that contain caffeine such as Excedrin®. Decaffeinated and “caffeine-free” products also should be avoided.

On the day of the test, plan to arrive 15 minutes before your test time. Please wear (or bring with you) comfortable clothing and shoes for walking on the treadmill. Patient lockers and showers are available for your use. Also, be sure to bring:

- Your doctor’s written order for the test if one was given to you
- A list of allergies
- A list of all your current medications (prescription, over-the-counter, and herbals)

- Photo ID
- Medical insurance information
- Medicare card (Medicare patients only)

Please come to the 8th floor reception desk in the Galter Pavilion, 201 East Huron Street.

Parking is available for patients and visitors in the garage at 222 East Huron Street, across from the Feinberg and Galter pavilions. For discounted rates, please bring your parking ticket with you. Tickets can be validated at the Customer Services Desks on the 1st and 2nd floor of the Feinberg and Galter pavilions; 1st floor of Prentice (including the Prentice 24-hour desk near the Superior Street entrance).

During the Test

When you arrive in Nuclear Cardiology, a nurse or technologist (tech) will explain the test. If you think you may be pregnant or if you are breastfeeding, please tell the tech. An IV (into the vein) line is placed in your arm. You are then given the 1st tracer into the IV. Once the tracer circulates for 15 to 30 minutes, the first set of heart pictures is taken.

You will be assisted onto an imaging table. You will be asked to lie quietly on your back under the camera for these pictures. The camera will be placed close to your chest. It is very important that you do not move while these pictures are being taken. The camera will take pictures at various angles; it takes about 15 to 30 minutes to complete them.

You then will be prepared for the stress portion of your test. After putting on a hospital gown, the skin on your chest will be prepared for electrode (a small pad) placement. The electrodes monitor your heart rhythm during the test. You will be asked questions about your medical history and will be given a hospital informed consent form to read and sign.

You will lie on an imaging table while the IV stress medication infuses over a short period of time. Then, you may be asked to perform mild exercise for a few minutes, such as leg lifts or walking at a very slow pace on a treadmill. A 2nd tracer is given in your IV at the time of peak stress. During the test, the care team will closely monitor your blood pressure, heart rate and heart rhythm. Be sure to tell the care team if you have chest pain, dizziness or headache, feel flushed or have other discomforts.

After the stress portion of your test, the IV is removed and you may change out of your hospital gown. The tracer needs to circulate for at least 60 minutes before a second set of pictures is done. You may leave the department during this time and may eat. Be sure to return at the given time for your final set of pictures.

When you return to the department, it is very important that you do not move while the pictures are being taken.

After the Test

You may resume your normal activities and diet. Your doctor will have the test results in 1 to 2 days.

Complications are rare and may include: changes in blood pressure, irregular heart rhythms and breathing difficulties. In very rare cases, heart attack, stroke or death may occur. If you have any questions about these risks, please ask the care team present at your test.

If you have any questions about your test instructions, please call Nuclear Cardiology at 312.926.8662, Monday through Friday, 7:30 am to 5:00 pm.

Northwestern Medicine – Health Information Resources

For more information, contact Northwestern Memorial Hospital's Alberto Culver Health Learning Center (HLC) at hlc@nm.org, or by calling 312.926.5465. Health information professionals can help you find the information you need and provide you with personal support at no charge.

For more information about Northwestern Medicine, please visit our website at nm.org.

Para asistencia en español, por favor llamar al Departamento de Representantes para Pacientes al 312.926.3112.

The entities that come together as Northwestern Medicine are committed to representing the communities we serve, fostering a culture of inclusion, delivering culturally competent care, providing access to treatment and programs in a nondiscriminatory manner and eliminating healthcare disparities. For questions, please call either Northwestern Memorial Hospital's Patient Representatives Department at 312.926.3112, TDD/TTY 312.926.6363 or the Northwestern Medical Group Patient Representatives Department at 312.695.1100, TDD/TTY 312.926.6363.

Developed by: NMH Nuclear Cardiology