

*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 significant coronary artery disease (CAD), a blockage in the blood vessels to the heart.

It also can show how severe the blockages are. Most often, this exam is done on patients who should not exercise or have trouble with exercise.

The test consists of 2 separate sets of pictures. Your healthcare team takes the 1st set when you are at rest. Your team will do the 2nd set after a medication is used to briefly change the blood flow to your heart (which 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 3 1/2 to 4 hours long.

### Before the test

#### Medications

- If you take theophylline, dipyridamole (Persantine®), acetylsalicylic acid/dipyridamole (Aggrenox®) and/or pentoxifylline (Trental®), check with your physician. Patients should not take these medications for 48 hours before the test.
- If you have diabetes and take insulin, you will receive instructions about your medication.
- You may take other medications with water.

#### Diet

- You may eat a light meal at least 2 hours before your appointment time.
- Do not eat or drink caffeine for 12 hours before the test. This includes coffee, tea, cola, chocolate or any medications that contain caffeine such as Excedrin®. Avoid decaffeinated products or products labeled as “caffeine-free” since they may contain small amounts of caffeine.

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:

- A list of your allergies
- A list of all your current medications (prescription, over-the-counter and herbal)
- Photo ID
- Medical insurance information
- Medicare card (Medicare patients only)

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

Parking is available for patients and visitors in the garage at 222 East Huron Street, across from Feinberg and Galter pavilions. For a discounted rate, please bring your parking ticket with you. You can have your ticket validated at the Customer Services Desks on the 1st and 2nd floors of Feinberg and Galter pavilions, or the 1st floor of Prentice Women's Hospital.

## **During the test**

When you arrive in the Nuclear Cardiology Department, 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. We will start an IV (into the vein) line and give you the 1st tracer. Once the tracer circulates for 15 to 30 minutes, we will take the 1st set of pictures.

We will help you move onto an imaging table. We will ask you to lie quietly on your back under the camera for these pictures. We will place the camera 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.

We will then prepare you for the stress portion of your test and ask you to put on a hospital gown. We will prepare the skin on your chest for electrode (a small pad) placement. The electrodes will record your heart rhythm during the test.

We will ask you questions about your medical history and explain the test to you, including the benefits and risks. We will then ask you to consent to the test.

You will lie on a cart or walk slowly on a treadmill while the IV stress medication infuses over a short period of time. We will give you the 2nd tracer 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, we will remove the IV and you may change out of your hospital gown. The tracer needs to circulate for at least 60 minutes before a 2nd set of pictures is done. You may leave the department during this time and you may have something to 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 physician will have the test results in 1 to 2 days.

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

If you have any questions or concerns about this test, please call the Nuclear Cardiology Department at 312.926.8662 (TTY:711), Monday through Friday, 7:30 am to 4:00 pm.