

Exercise Cardiac Perfusion Study: Nuclear Cardiology

An exercise perfusion study checks the blood flow to your heart.

The test measures your heart's response to exercise and can detect coronary artery disease (CAD) blockage in the blood vessels to the heart. It also can show how severe blockages are.

The test consists of 2 sets of pictures or scans. The first set is taken when you are at rest. The 2 is done after you walk on a treadmill or pedal a stationary bike. Both scans use 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 about 3½ hours.

If there is a chance that you could be pregnant, please tell the tech

Before the Test

- 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 medicines that contain caffeine, such as Excedrin®. Decaffeinated and products marked “caffeine-free” also should be avoided.
- Patients taking theophylline and/or dipyridamole must not take these medicines for 24 hours prior to the test and must check with their doctor before discontinuing them.
- Please wear or bring with you comfortable clothing and shoes for walking on the treadmill. Patient lockers and showers are available for your use.

If you have any questions about this test, please call Nuclear Cardiology at 312-926-8662, Monday through Friday, 7:30 a.m. to 5 p.m.

On the day of the test, plan to arrive 15 minutes before your test time. Be sure to bring:

- Your doctor's written order for the test.
- A list of all your current medications (prescription and over-the-counter).
- Medical insurance information.
- Medicare card (Medicare patients).

Please come to the 8th Floor reception desk in the Galter Pavilion, 201 E. Huron St.

Parking is available for patients and visitors in the garage at 222 E. Huron, 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, and the 1st floor of Prentice (including the Prentice 24-hour desk near the Superior St. entrance).

During the Test

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

You are 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 the pictures are taken. The camera will take pictures at various angles and take about 15 to 30 minutes to complete.

You will then get ready for the exercise portion of your test. A doctor or exercise physiologist will ask you questions about your health history. You will be asked to put on a hospital gown. The skin on your chest will be prepared for electrode placement. The electrodes measure the electrical activity of your heart. You will be asked to walk on a treadmill or pedal a stationary bicycle. Exercise will begin slowly, at a low level, and increase every 3 minutes to higher levels of exertion. During the test, the doctor or exercise physiologist will closely check your blood pressure, heart rate and electrocardiogram (ECG). Be sure to tell the doctor or exercise physiologist if you have:

- Dizziness
- Fatigue
- Shortness of breath
- Chest pain

You and the doctor or exercise physiologist decide when to end the exercise. But it is important that you give at least a 1-minute notice before you need to stop exercising.

At this level of peak exercise, the 2nd dose of the tracer will be given through the IV. You will continue to exercise for least 1 full minute. Then, you sit or lie down for several minutes while you cool down. After the stress portion of your test, another set of pictures will be taken. Again, it is very important that you do not move while these pictures are being taken.

After the Test

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

Complications are rare and may include changes in blood pressure, irregular heart rate and, in very rare instances, heart attack, stroke or death. If you have any questions about these risks, please ask the doctor, exercise physiologist or nurse present at your test.

If you have any concerns, please call Nuclear Cardiology at 312-926-8662.

Health Information Resources

For more information, visit one of Northwestern Memorial Hospital's Health Learning Centers. These state-of-the-art health libraries are located on the third floor of the Galter Pavilion and on the first floor of the Prentice Women's Hospital. Health information professionals are available to help you find the information you need and provide you with personalized support at no charge. You may contact the Health Learning Centers by calling 312-926-LINK (5465) or by sending an e-mail to hlc@nmh.org.

For additional information about Northwestern Memorial Hospital, please visit our Web site at www.nmh.org.

Para asistencia en español, por favor llamar a el departamento de representantes para pacientes al 312-926-3112.

Northwestern Memorial is an equal opportunity employer that welcomes, respects and serves with dignity all people and does not discriminate, including in hiring, or employment, or admission, or access to, or treatment in its programs or activities on the basis of race, color, gender, national origin, religion, disability, handicap, age, Vietnam or other veteran status, sexual orientation or any other status protected by relevant law. To arrange for TDD/TTY, auxiliary aids and foreign language interpretation services, call the Patient Representative department at 312-926-3112, TDD number 312-926-6363. Issues related to the Rehabilitation Act of 1973 should be directed to the director of Employee Relations or designee at 312-926-7297.

Developed by: Nuclear Cardiology