

Exercise Cardiac Perfusion Study: Nuclear Cardiology

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

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

The test consists of 2 sets of pictures or scans. The 1st set is taken when you are at rest. The 2nd set is done after you walk on a treadmill or pedal a stationary bike. Both scans use small amounts of 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 3 1/2 hours.

Before the test

- 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.
- If you take theophylline and/or pentoxifylline (Trental®), do not take these medications for 24 hours before the test. Check with your physician before stopping them.
- If you take dipyridamole (Persantine®) or acetylsalicylic acid/dipyridamole (Aggrenox®), do not take these medications for 48 hours before the test. Check with your physician before stopping them.
- Please wear or bring comfortable clothing and shoes for walking on the treadmill with you. Patient lockers and showers are available for your use.

Plan to arrive 15 minutes before your test time. 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 and card
- 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 Service Desk on the 1st or 2nd floors of the Feinberg and Galter pavilions, or the 1st floor of Prentice Women's Hospital.

During the test

A nurse or technologist (tech) will explain the test to you and ask you to consent to the test. If you think you may be pregnant or if you are breastfeeding, please tell the tech. They will place an IV (into the vein) line in your arm. They will give you the radioactive tracer through the IV line 15 to 30 minutes before the first pictures are taken.

Once you are on the imaging table, please lie quietly on your back. The camera will be close to your chest and will take pictures from different angles. This will take 15 to 30 minutes. It is important not to move during this time.

For the exercise part of the test, we will ask you about your health history. We will ask you to put on a hospital gown. We will prepare the skin on your chest for the electrode placement with rubbing alcohol and a mild abrasive. The electrodes record the electrical activity of your heart. We will ask you to walk on a treadmill or pedal a stationary bicycle. Exercise will begin slowly, at a low level, and slowly increase to make you work harder. The exercise physiologist will closely check your blood pressure, heart rate and electrocardiogram (ECG). Be sure to tell the exercise physiologist if you have:

- Dizziness
- Fatigue
- Shortness of breath
- Chest pain

You and the exercise physiologist will decide when to end the exercise.

Then, you will sit or lie down for several minutes while you cool down. After the stress portion of your test, we will take another set of pictures. Again, it is very important that you do not move while the exercise physiologist is taking these pictures.

After the test

You may resume your normal activities and diet after the test.

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 physician, exercise physiologist or nurse present at your test.

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.