

Myocardial Perfusion Imaging (MPI) With Pharmacologic Stress Test

General Information

Myocardial perfusion imaging with a pharmacologic (medicine) stress test helps your doctor see how well your heart works at rest and during stress. The test also helps your doctor tell if parts of your heart muscle are not getting enough blood.

This test is used for people who cannot exercise on a treadmill. Instead, you are given a medicine that either opens up your blood vessels or speeds up your heart rate.

These medicines include regadenoson, adenosine, dobutamine and dipyridamole. Your doctor will order the best medicine to use for your test.

During the test, you will also receive a radioactive material, known as a tracer, through an intravenous (IV) line in your hand or arm.

The amount of radiation you will receive from the tracer is small. It is about what you receive from a CT chest scan.

The test usually takes 3 to 4 hours, including preparation time.

Side Effects and Risks

Like with any test that involves stress, there are risks. They can include getting short of breath, irregular heartbeat, heart attack or death.

Your Test

Date: _____

Time: _____ a.m. / p.m.

Date: _____

Time: _____ a.m. / p.m.

Location:

If you need to reschedule your test, please call:

- Allina Health Minneapolis Heart Institute — Minneapolis: 612-775-4201
- Allina Health Minneapolis Heart Institute — Edina: 952-428-0500
- Allina Health Minneapolis Heart Institute – Baxter: 218-855-5280.

Serious side effects are rare. If you have any issues, a doctor will help you right away. The stress staff has special training in this testing and will help you.

Ask your doctor any questions you have about the test.

(over)

Before the Test

- For 24 hours before the test, **do not** eat or drink anything with caffeine such as:
 - caffeinated or decaffeinated beverages (such as coffee, tea, soda or energy drinks)
 - chocolate
 - medicines that contain caffeine, unless your doctor tells you otherwise.
- For 4 hours before the test, **do not** eat or drink anything.
- **Do** take any medicines you usually take. Your doctor will tell you if you should not take certain medicine.
 - If you have diabetes, you may receive special instructions about your medicine and diet.
 - If you take any medicine that contains caffeine, ask your doctor if you should take it.
 - If you take medicine for your heart or high blood pressure, ask your doctor if you should take it.
- Wear loose, comfortable clothing (slacks and a top) and walking shoes.
- Tell your doctor and technologist if you are breastfeeding, pregnant or think you may be pregnant.

During the Test

- The technologist will inject the tracer through an IV line in your hand or arm 30 to 60 minutes before the first scan. The tracer is not an iodine contrast.
- After you enter the scan room, you will lie on your back on an imaging table.
- You will need to lie quietly while a camera scans your heart. This will take about 25 minutes.

- After the first scan, a technician will put electrocardiogram (ECG) patches on your chest to monitor your heart.
- You will get the stress medicine and a second injection of the tracer through the IV line. A nurse will stay with you during this time. The stress test may be performed with you lying down, sitting up or even slowly walking on a flat treadmill.
- While you receive the stress medicine, you may feel hot, have chest discomfort or shortness of breath. **This is normal.**
- Thirty to 60 minutes later, the technologist will scan your heart a second time for about 25 minutes. You will need to lie quietly while the camera scans your heart.

After the Test

- The IV catheter will be removed from your arm or hand and a bandage put on.
- The ECG patches will be removed.
- You may return to your normal activities.
- The test results will be sent to the doctor who ordered this test for you. They will notify you of the results.

Two-day Test

Sometimes, MPI studies are done over two days. Usually, the stress part of the test is done on the first day and you are scheduled a day or two later to return for the resting pictures. Each appointment will last about 2 hours.

Please follow the “Before the Test” instructions on the day of the stress test. No special prep is needed on the day of the resting pictures.

If this is how your test is scheduled, the appointments will be explained to you when they are scheduled.