A stress sestamibi scan with medicine, also called a chemical stress sestamibi scan, is a test that looks at your heart muscle after it has been stressed without you having to exercise. It requires an injection of the medicine called a stress agent and a radioactive material called sestamibi into a vein in your arm.

The medicine will increase blood flow to your heart as if you were exercising. Some medicines used for this test include Lexiscan, dipyridamole or dobutamine. Side effects from the medicine may include a mild headache, shortness of breath, racing heart, or nausea. The material that allows us to see your heart muscle has a very small amount of radioactivity. This test will result in very low radiation exposure.

This scan shows areas of the heart muscle that are not getting enough blood. Your doctor uses the scan to help check for coronary artery disease. It also shows how well the grafts after bypass surgery are working, and how well medicines or balloon angioplasty therapy is working.

If you are breastfeeding, pregnant or think you might be, tell the radiologist or technologist before the scan.

To prepare for the test

- Do not take Theophylline for 72 hours before the test. If you take Theophylline for reactive airway disease, tell the Nuclear Medicine staff.
- Do not take these medicines for 48 hours before the test: Cliostazol, Persantine, Pentoxifylline, Viagra, Levitra, or Cialis.
- Do not use alcohol, tobacco, or over the counter medicines for 24 hours before the test.
- Do not eat or drink anything with caffeine or take any over the counter medicines with caffeine for 24 hours before the test. This includes any caffeine or decaffeinated drinks like coffee, tea, soft drinks or chocolate.

Day of Your Test

- Do not eat or drink anything for at least 4 hours before the test.
- Do take your other prescribed medicines, especially heart medicines, with a small sip of water before the scan. If you take beta blockers or oral nitrates, check with your doctor to see if you should wait to take these medicines before this test.
- Bring a list of medicines you take. Be sure to include any prescription and over the counter medicines, vitamins, and herbal supplements.
- Wear comfortable, loose fitting clothing.

If you are over 399 pounds, you will need to return a second day.
During the test

- The stress sestamibi scan with medicine will take about 4 hours.
- When you arrive, you will get an IV. The radioactive material, called sestamibi, will be injected into a vein in your arm. You will then need to sit in the waiting area for 45 to 60 minutes while the sestamibi goes to your heart muscle. You will be given 2 glasses of cold water to drink during this time.
- You will then lie on your back, on a table with your arms above your head while the camera rotates around your chest. Pictures are taken for the next 30 minutes to show heart muscle.
- After the first images are taken, you will be hooked up to an EKG machine. Your IV will be checked with a saline flush.
- The cardiologist or nurse then injects the medicine into your IV while you sit on the bed. The technologist will inject the sestamibi into the same IV. Any side effects you may feel should go away after about 4 minutes. If the side effects last longer, the nurse will give you other medicine to lessen the effects.
- You will be unhooked from the EKG machine when your heart rate returns to normal. You will be asked to sit in the waiting area for 45 to 60 minutes. This is to allow your heart rate to go back to its resting rate. You will be given more cold water to drink before pictures are taken.
- The last set of images will be taken while you lie on your back with your arms above your head. These images will take about 30 minutes to complete.

Your test date and location

Your test has been scheduled at ____________________ on _________________________.

Your test is scheduled at:

- **Ross Heart Hospital** - 452 West 10th Avenue, Columbus, OH 43210
  Go to Outpatient Registration on the first floor.
  - If you need to **change your appointment**, call Ross Scheduling at 614-293-7677.
  - If you have a **question about your test**, please call Nuclear Medicine at 614-293-9006.

- **University Hospital East** - 181 Taylor Avenue, Columbus, OH 43203
  Go to Main Registration on the first floor of the tower, near the main hospital entrance.
  - If you have to **change your appointment**, call Scheduling at 614-257-2222.
  - If you have a **question about your test**, please call Nuclear Medicine at 614-257-3670.

Talk to your doctor or health care team if you have any questions about your care.

For more health information, contact the Library for Health Information at 614-293-3707 or e-mail health-info@osu.edu.

© 2009 - January 17, 2017, The Ohio State University Wexner Medical Center.