



PACIFIC COAST CARDIOLOGY & RESEARCH

PATIENT PRE-TEST INSTRUCTIONS:

Stress Nuclear: Treadmill Nuclear Scan/Adenosine/Lexiscan Nuclear Scan/ PET Rubidium

1. Patient should be fasting for 4 hours prior to the exam.
2. Wear tennis shoes and comfortable clothing.
3. No caffeine-containing foods or beverages 24 hours prior to test.
4. Consult the list below for drugs that must be ceased 48 hours prior to the test.

Prescribed and over-the-counter drugs: Cafegot (all forms), Darvon compound, Fiorinal, Synalgos-DC, Wigraine (all forms), Anacin, Excedrin, No Dox, Aggrenox (dipyridamole), Theo-24, Theospan-SR, Theophylline-SR, Theobid Jr. Duracap, Theolair-SR, Theovent long acting, Slo-Phyllin gyrocaps, Slo-bid gyrocaps, Quibron-T/SR, Theo-Dur.

***YOU SHOULD NOT STOP ANY MEDICATIONS WITHOUT CONTACTING YOUR PRESCRIBING DOCTOR. USE THE FOLLOWING LIST IN ORDER TO SPEAK WITH YOUR DOCTOR:

Commonly Used Beta Blockers: Blocadren (timolol), Coreg (carvedilol), Inderal (propranolol), Lopressor (metoprolol), Tenormin (atenolol), Toprol –XL (metoprolol), Trandate (labetalol), Visken (pindolol), Bystolic.

Caffeinated Food and Beverages: Coffee including “decaffeinated”, teas, cocoa and any food containing cocoa (chocolate), and soft drinks.

Nuclear Stress Test

A nuclear stress test measures the amount of blood in your heart muscle at rest and during exercise. It is often done to find out what may be causing chest pain. It may be done after a heart attack to see if areas of the heart are not getting enough blood or to find out how much heart muscle has been damaged from the heart attack.

During the scan, a camera takes pictures of the heart after a special test medicine (radioactive tracer) is injected into a vein in the arm. The tracer travels through the blood and into the heart muscle. As the tracer moves through the heart muscle, areas that have good blood flow absorb the tracer. Areas that do not absorb tracer may not be getting enough blood or may have been damaged by a heart attack.

Two sets of pictures may be made during a nuclear stress test. One set is taken while you are resting. Another set is taken after your heart has been stressed, either by exercise or after you have been given a medicine. The resting pictures are then compared with the stress images.

Why Is a Nuclear Stress Test Performed?

A cardiac perfusion scan is done to:

Find the cause of unexplained chest pain or chest pain brought on by exercise.

Check for the location and amount of damage caused by a heart attack.

Identify coronary artery disease (CAD).

Help make treatment decisions for a person with CAD.

Check to see that the heart is getting enough blood after heart surgery or angioplasty.

Identify a congenital heart defect and determine how serious it is. These scans may also be done following surgery to correct a congenital heart defect.

How To Prepare

Before a cardiac perfusion, tell your doctor if you:

Are taking any medicines, including erection---enhancing medicines (such as Cialis, Levitra, or Viagra). You may need to take nitroglycerin during this test, which can cause a serious reaction if you have taken an erection---enhancing medicine within the previous 48 hours. Ask your doctor whether you need to stop taking any of your other medicines before the test.

Are allergic to any medicines or anesthetics. Are or might be pregnant. Are breast---feeding. Use formula and throw out your breast milk for 1 to 2 days after the scan.

Do not eat or drink for at least 3 hours before a cardiac perfusion scan. If you are having a stress scan, avoid alcohol, tobacco, caffeinated beverages, and nonprescription medicines for at least 24 hours before the test.

Wear comfortable shoes and loose shorts or pants suitable for exercise. Remove all jewelry before the test.

How It Is Done

Resting-scan

For resting scans, in which you do not exercise, you will be asked to remove your clothing above the waist, and you will be given a hospital gown to wear. Four electrodes will be attached to your chest to keep track of your heartbeats.

For a resting scan, the injection site on your arm will be cleaned and an elastic band will be placed around your upper arm. Then a small amount of the radioactive tracer is injected, usually into a vein on the inside of your elbow.

You will lie on your back on a table with a large camera positioned above your chest. The camera records the tracer's signals as it moves through your blood. The camera does not produce any radiation, so you are not exposed to any additional radiation while the scan is being done.

You will be asked to remain very still during each scan, which takes 5 to 10 minutes. The camera will move to take more pictures at different angles. Several scans will be taken.

The entire test takes 30 to 40 minutes, after which you can resume your normal activities.

Stress-scan using medicine

The stress scan is done in two parts. In many facilities, the first images are taken while the person is at rest. Then a second set of images is taken immediately after the person is given a medicine such as adenosine or lexiscan, which makes the heart respond like it would to exercise. A stress test with medicine is usually used when a person cannot exercise for some reason.

For this test, you will be asked to sit or lie on the examining table and you will be given a routine electrocardiogram (EKG), which takes about 5 to 10 minutes.

Then the medicine is injected into your arm. You may get a headache and feel dizzy, flushed, and nauseated from the medicine, but these symptoms usually do not last long. Additional EKGs and blood pressure measurements are often taken. After the medicine takes effect, a small amount of radioactive tracer is injected. You will lie down on a table for a set of scans. The camera records the tracer's signals as it moves through your blood. The camera does not produce any radiation, so you are not exposed to any additional radiation while the scan is being done.

Sometimes more pictures are taken after you rest. You may resume your normal diet and activities after the final set of scans.

Stress-scan using exercise

For stress scans using exercise, your heart rate will be checked with an electrocardiogram (EKG). Because EKG electrodes need to be attached to the chest to check the heart, men are usually bare-chested and women usually wear a bra, gown, or loose shirt. The exercise stress scan is done in two parts. First a set of resting images is taken, then a set of stress images is taken immediately after exercise. In many facilities, first resting pictures are taken using one type of tracer. More pictures are taken using a different tracer after your heart has been stressed by exercise.

In this stress test, you exercise on a treadmill or stationary bike. Your heart rate will be checked during the test with standard electrocardiography. Your blood pressure is checked using a blood pressure cuff placed on your arm. You will begin by walking or pedaling slowly and easily. Every few minutes, the speed or incline of the treadmill or resistance of the bike may be increased. You will exercise until you need to stop or until you reach a suitable heart rate. At that point, a different tracer medicine is injected. You will probably continue to exercise for an additional 30 to 60 seconds to circulate the radioactive tracer.

You will then lie down on a table for scanning. Each scan takes 5 to 10 minutes. The camera does not produce any radiation, so you are not exposed to any additional radiation while the scan is being done.

Sometimes more pictures are taken after you rest. You may usually resume your normal diet and activities after the final set of scans.

A second injection of radioactive tracer is repeated several hours after exercise and before the final image. You may be asked to return 24 hours after the test to have another set of pictures taken.

How It Feels

The cardiac scanning test itself is painless.

You may feel a brief stinging or burning sensation when the needle is inserted into the vein in your arm.

You may be uncomfortable lying still for an extended period of time on the table during the scans.

If medicine to stress your heart is used, you may have symptoms of mild nausea, headache, dizziness, flushing, or chest pain (angina). These symptoms only last a few minutes.

If you are asked to exercise, you may have chest pain, breathlessness, lightheadedness, aching in your leg muscles, and fatigue. Report these to the technician. If the symptoms are severe, the exercise part of the test may be stopped.

Risks

Cardiac perfusion scans are usually safe. There is always a slight chance of damage to cells or tissue from radiation, including the low levels of radiation used for this test. But the chance of damage from the radiation is usually very low compared with the benefits of the test.

The risk of exercise depends on the condition of your heart and your general level of health.

The risks include:

Fainting

Chest pain

An irregular heartbeat

Heart attack

There is a slight risk that death may result if a heart attack occurs during the test

Results

A cardiac perfusion scan measures the amount of blood in your heart muscle at rest and during exercise. Test results are usually available within 1 to 3 days.