

## Nuclear stress test

### Definition

Thallium stress test is a nuclear imaging method that shows how well blood flows into the heart muscle, both at rest and during activity.

### Alternative Names

Sestamibi stress test; MIBI stress test; Myocardial perfusion scintigraphy; Dobutamine stress test; Persantine stress test; Thallium stress test; Stress test - nuclear; Adenosine stress test; Regadenoson stress test

### Why the Test is Performed

The test is done to see whether your heart muscle is getting enough blood flow, and therefore enough oxygen, when it is working hard (under stress).

Your doctor may order this test to determine:

- How well a treatment (medications, angioplasty, heart surgery) is working
- Before you start an exercise program or have surgery, if you are at high risk for heart disease or complications
- The cause of new chest pain or worsening angina
- What you can expect after you have had a heart attack

The results of a nuclear stress test can help your doctor:

- Determine how well your heart is pumping
- Determine the proper treatment for coronary heart disease
- Diagnose coronary artery disease
- See whether your heart is too large

### How the Test is Performed

This test is done at a medical center or physician's office. It is done in parts, or stages:

You will have an IV (intravenous line) started.

- A radiopharmaceutical, such as thallium or sestamibi, will be injected into one of your veins.
- You will lie down and wait for between 15 and 45 minutes.
- A special camera will scan your heart and create pictures to show how the radiopharmaceutical has traveled through your blood and into your heart.

The radiotracer, injected into a vein, emits gamma radiation as it decays. A gamma camera scans the radiation area and creates an image.

