

Exercise Treadmill Test with Radionuclide Imaging

To find and assess heart disease

This handout explains a test that will help your doctor assess your heart health.

What is this test for?

This test is done to help your doctor assess your heart health. For this test, you will receive an injection, have pictures taken of your chest, and exercise on a treadmill. The results of this test will help your doctor diagnose and treat any heart disease you may have.

What is radionuclide imaging?

Radionuclide imaging is a way for us to see inside your heart. It is also called a *radioisotope scan*.

In this part of the test, we will inject a small dose of a *radioactive tracer* into your vein. We will use a special camera to see where the tracer collects in your body tissues. This will show us if there is any narrowing in the blood vessels of your heart.



Please talk with your provider if you have any questions or concerns about this test.

Why should I have this test?

This test will help us know:

- If there are any blockages in your heart arteries
- Whether you have had heart attacks and how big they were
- If you have heart disease and where it is
- The size of your heart is and how well it pumps blood

How does the test work?

This test combines exercising on a treadmill with imaging. It will take about 2 to 3 hours. A nurse and a nuclear medicine technologist will be present. Here is what to expect:

- We will place a small *intravenous* (IV) tube into a vein in your arm or hand. We will inject a small amount of the tracer into the IV.
- You will either sit or lie in a reclining chair. The nurse will bring a camera close to your chest to take pictures of your heart.
- You will then exercise on a treadmill. The treadmill will increase in speed and incline every 3 minutes. While you exercise, we will closely watch your blood pressure, heart rhythm, and heart rate.
- While you are on the treadmill, we will ask you how you are doing. When you are getting very tired and ready to stop exercising, we will inject another dose of tracer into your IV. You will then exercise for 2 more minutes before we stop the treadmill.
- After you stop exercising, we will take more pictures of your heart.
- If you cannot raise your heart rate enough with exercise, we will give you a drug to relax your blood vessels. This will be either *adenosine* or *regadenoson* and will be injected into your IV. The drug will help give us the answers we are looking for.

Are there any risks with this test?

- Treadmill tests may cause changes in your heart rhythm, blood pressure, and breathing. We will closely watch your vital signs during your test. Problems are very rare with this test. But, we have emergency equipment nearby, in case it is needed.
- Heart attacks and cardiac arrest can occur with heavy exercise. But, it is very rare to have these problems during a treadmill test.
- The radiation used in this test is similar to the amount used for a *computed tomography* (CT) scan of the belly.
- Side effects from adenosine and regadenoson include flushing, chest pain, shortness of breath, headache, or nausea. Most times, these side effects ease within a few minutes.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

Heart Institute at UWMC -
Northwest: 206.363.1004

How do I get the results?

It will take a few days to get the results of your test. The provider who ordered the test will either talk with you about your results or tell you how to access them.