UW Medicine UNIVERSITY OF WASHINGTON MEDICAL CENTER

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This test will help us assess your heart health.

IV Adenosine with Radionuclide Imaging

A test to find and assess heart disease

What is this test for?

This imaging test is done to help your doctor assess your heart health. Tests like this often use exercise to increase a patient's heart rate. But, if you cannot exercise, we instead use a drug to increase blood flow to your heart.

For your test, we will use the drug *adenosine*. You will receive this drug through a small, thin, flexible tube in your arm vein. This tube is called an *intravenous* (IV) *catheter*.

What is radionuclide imaging?

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

After you receive the adenosine, we will inject a small dose of *radioactive tracer* into your vein through your IV. We will use a special camera to see where the tracer collects in your heart. This will show us if there is major narrowing in your heart's blood vessels.

Why should I have this test?

This test will help us see:

- If there are any major blockages in your heart arteries
- Whether you have had heart attacks and how large they were
- The size of your heart's pumping chamber and how well it pumps blood

How does the test work?

This test will take about 3 hours. A nurse and a nuclear medicine technologist will be present. Here is what to expect:

- We will place a small IV catheter into a vein in your arm or hand.
 We will inject a small dose of the tracer into the IV.
- You will either sit or lie in a reclining chair. The technologist will bring a camera close to your chest to take pictures of your heart.

- You will then be moved to another exam room, where we will inject adenosine into your IV. This is called an *infusion*. It will take 4 or 5 minutes. During the infusion, we will inject another dose of the tracer through the same IV.
- We will closely watch your blood pressure, heart rhythm, and heart rate during **and after** the infusion.
- We may ask you to walk on a treadmill while the adenosine is being given. You can walk at whatever speed you want. Or, you can stay seated in the recliner.
- We then need to wait about 30 minutes before we can take the next set of pictures. During this time, we would like you to have a snack, so please bring something with you to eat. You may also have caffeine at this time.
- After about a half hour, we will take a second set of pictures.

Are there any risks with this test?

- Possible side effects from adenosine include flushing, chest pain, shortness of breath, headache, or nausea. **Any side effects that occur usually go away within** 1 to 2 minutes after we stop giving the drug.
- The radioactive tracer does not usually have any side effects, but you may have a metallic taste in your mouth.
- 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.
- The radiation used in this test is similar to the amount used for a computed tomography (CT) scan of the belly.
- The risk of serious injury or death is 1 in 10,000 patients.

How do I prepare for this test?

Please see our handout, "How to Prepare for Your Radionuclide Imaging Test." It gives details on how to prepare for this test.

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.

You can also access results from your MyChart account as soon as they are available.

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