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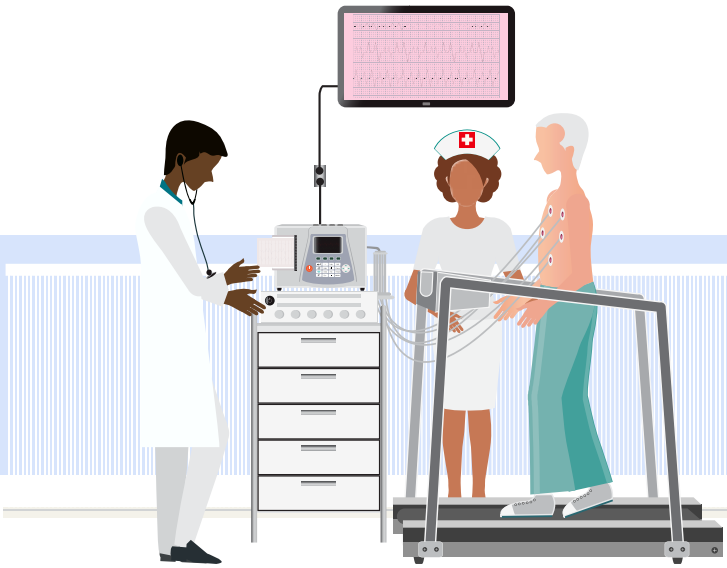

Your Nuclear Stress Test: What You Need to Know

What is a nuclear stress test?

A nuclear stress test is a safe way to learn how your heart is working. The information from your stress test will help your doctor understand how blood flows in your heart arteries when you are resting and during physical activity. Your stress test also will help you and your doctor understand what, if any, treatments are needed to help your heart work better.

The most common reasons for a stress test are to learn more about:

✓ Symptoms like chest pain or shortness of breath ✓ A heart rhythm problem ✓ A new heart condition

How does a nuclear stress test work?

During your nuclear stress test, a medicine will be injected into your vein. This medicine is called a "radioactive tracer," and it will leave your body by the next morning. While the radioactive tracer is active, you will lie down under a special camera to take pictures of your heart. These pictures will give you and your doctor important information about how your blood is flowing in your heart.

There are usually two parts to a nuclear stress test:

- The **resting** part shows your doctor how blood flows in your heart when you are relaxed.
- The **stress** part helps your doctor understand how your heart works when you are exercising. You may be asked to walk quickly or run on a treadmill, or you may be given a medication that increases blood flow to your heart just like exercise does.

In some cases, your doctor may decide to do just one part of the test. Your doctor will tell you how your test will be done.

Benefits and Risks with Nuclear Stress Tests

Nuclear stress tests are very safe, but all tests have benefits and risks.

✓ Benefits

Your nuclear stress test will help your doctor know which treatments will keep your heart as healthy as possible. The information will help your doctors know if you need any more tests.

✗ Risks

- The medicine used in this test contains a very small amount of radiation, no more than you might be exposed to in 2 to 3 years of your normal life.
- Less than 1 in 10,000 people who have a nuclear stress test have a serious problem from the test.

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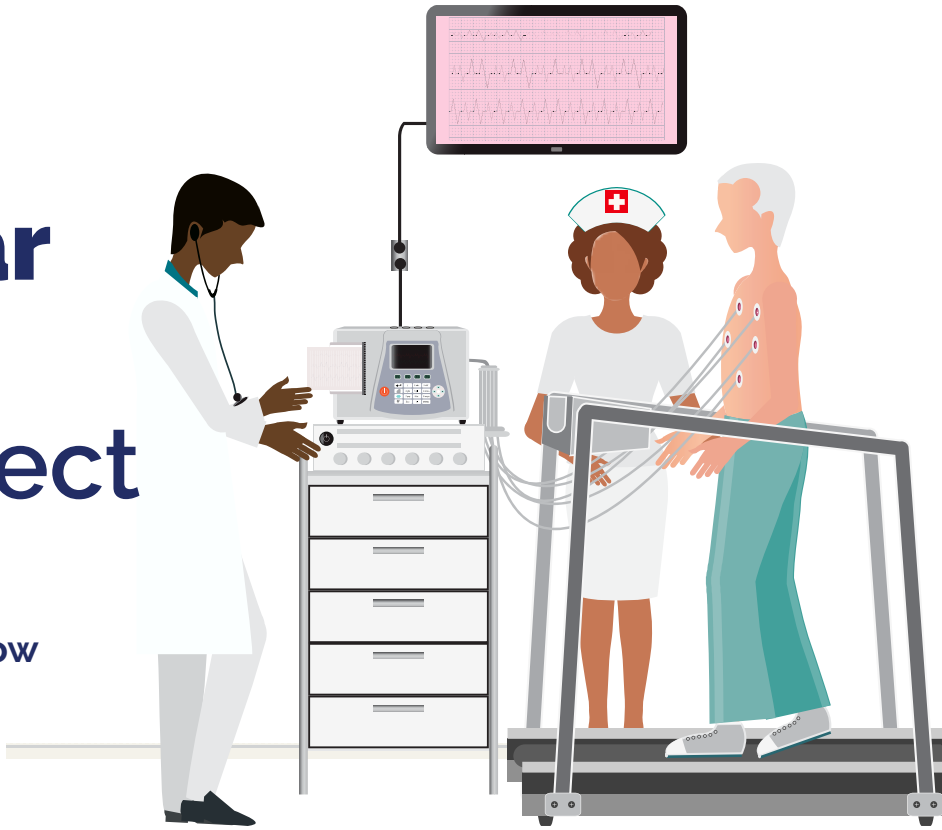
Your Nuclear Stress Test: What to Expect



A nuclear stress test is used to take pictures of your heart to show how your heart is working and what may be causing problems.

Get Ready for Your Nuclear Stress Test

Before Your Test

Your doctor or nurse will give you instructions on what you should and should not do before your nuclear stress test. **It is important that you do exactly what your doctor says so that the pictures of your heart are clear and useful.**

- **Ask your doctor or nurse any questions you have about your test.**
- **If the test instructions seem confusing or hard for you to follow, tell your doctor or nurse.**

1 or 2 Days Before Your Test

Your nuclear stress test actually starts 1 or 2 days before your appointment. Here are some things you may need to do.

Medications

- You may have to stop taking some of your medications for 1 or 2 days before your test. This may include over-the-counter medications. Your doctor or nurse will tell you which medications to stop and which you should keep taking.
- If you are taking diabetes medications, such as insulin, be sure to ask your doctor or nurse about how to take these medications before your test.

Do not stop or change your medications unless your doctor or nurse tells you to do so.

Food & Drinks

Some foods can lower the quality of the pictures taken during a nuclear stress test. It is important you follow all instructions about what you can eat or drink the day before and the day of your test. If you do not follow your doctor or nurse's instructions, your test may need to be rescheduled or repeated.

- **Do not eat or drink anything with caffeine in it for 12 to 24 hours before your test.** Do not eat or drink coffee, tea, soda, energy drinks, caffeinated or decaffeinated drinks, or any food with chocolate in it. Your doctor or nurse will tell you exactly how long you must not eat or drink anything with caffeine in it.

Even decaffeinated drinks have some caffeine in them, so do not drink them for 1 day before your test.

- **Do not eat or drink anything for at least 3 to 6 hours before your test.** Your doctor or nurse may let you have a few sips of water to help you swallow medications.

The Day of Your Test

Your test may be done in 1 day or 2 days. How long your test takes will depend on the exact type of nuclear stress test you are having.

- For a 1-day test, you will be at the testing center for 4 to 5 hours.
- For a 2-day test, you will be at the testing center for less time each day.

Before Your Test

When you are getting ready for your test appointment, remember these things:

- Keep following your instructions for taking medications and for not eating and drinking.
- Wear comfortable clothing and shoes. Sneakers (tennis shoes) are a good choice.
- **Do not smoke or vape on the day of your test.**

When You Arrive at the Testing Center

- You will be asked to read and sign a form giving permission for the test.

Before you sign the form, ask any questions you may have.

- **You will be assessed and asked questions about your medical history.**

- **If you are pregnant or think you may be pregnant, tell your doctor or nurse before the test starts.**
- **If you did not follow all of the instructions on medications, eating, or drinking, tell your doctor or nurse before your test.**

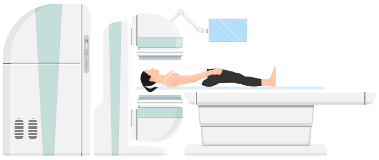
- An intravenous (IV) tube will be placed into a vein in your arm or hand. This tube will be used to give you medications, including the very small amount of radioactive medicine ("tracer") needed to take pictures of your heart.
- Special stickers will be placed on your arms and chest to check your heart rhythm before and during your test.
- A blood pressure cuff will be wrapped around your upper arm to monitor your blood pressure before and during your test.

During Your Test

A nuclear stress test usually has two parts – resting and stress. The order of the parts depends on your heart and the questions your doctor wants to answer.

Resting Part

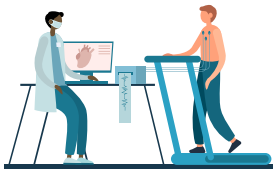
1. A very small amount of radioactive medicine will be injected into your IV tube. You will wait for a short time while the medicine goes to your heart muscle. You may be asked to drink water while you wait.



2. You will lie down under, or sit in front of, a special camera for up to 20 minutes while pictures of your heart are taken. You may be asked to change position, for example, from your back to your belly or from sitting to lying down.

Once you are in position, do not move. To get good pictures, you need to stay still.

Stress Part



1. If you are able to exercise, you will be asked to begin by walking slowly on a treadmill. The treadmill will get faster and steeper every few minutes. You may get to a brisk walk or even running.

2. If you cannot exercise on the treadmill or you try to exercise but need to stop early, you will be given a medication through your intravenous (IV) tube. The medication will increase blood flow to your heart just like exercise does. The medication will begin working very quickly.

3. Whether you walk on a treadmill or you are given medication through your IV for the stress part, your doctor or nurse will be watching you carefully and checking your heart rhythm and blood pressure.

4. Near the end of the stress part of the test, a very small amount of radioactive medicine will be injected into your IV tube and you will be watched as your heart recovers.

- **If you are walking or running on the treadmill and feel like you should stop, tell the test provider. Do not be afraid or embarrassed if you need to stop.**
- **Sometimes symptoms can occur during the test. Tell the provider right away if you have any of these feelings:**

  - Pain or discomfort in your chest
  - Your heart is racing
  - Your face feels hot or red as if blood is flowing to your face
  - Shortness of breath
  - Leg pain or discomfort
  - Like you need to vomit
  - Tiredness
  - Dizziness
  - Headache

After Your Test

After your test is done, you will be able to go back to most of your normal daily activities. Be sure to follow these instructions:

- **After your test, you should drink plenty of fluids.** This will help clear the radioactive medicine from your body. The medicine should be gone by the next morning.
- For the rest of the day of your test, try to stay away from **young children and pregnant women.**

The doctor or nurse who ordered your nuclear stress test will go over the results with you. He or she will explain what the test results mean for your care and will answer your questions.

What Does Your Nuclear Stress Test Mean?

Your doctor may say your nuclear stress test result is **NORMAL** or **ABNORMAL.** What does this mean?

A NORMAL test result means:

- There is normal blood flow to your heart muscle.
- Your heart is working normally.
- Usually, your risk of a heart attack is low, and you may not need more heart tests.

An ABNORMAL test result means:

- There may be a problem with blood flow to your heart muscle.
- There may be a problem with how your heart is working.
- More heart tests may be needed.

Your doctor will talk to you about the test results and may decide to change your medications, order other tests, or refer you to a heart specialist.

Be sure to ask all of your questions about how the results of your nuclear stress test will be used to guide your treatment. You and your doctor should make decisions about your care together.

This information booklet was written by **Nishant R. Shah, MD, MPH, FASNC, Andrew J. Einstein, MD, PhD, MASNC,** and **Vikas Veeranna, MD,** as part of the American Society of Nuclear Cardiology's (ASNC) **PatientFirst** program. This program is focused on making sure patients receive the right test at the right time. For more information, visit ASNC.org/PatientFirst or email info@ASNC.org.