

Nuclear Exercise Stress Test



A nuclear exercise stress test is a diagnostic test used to evaluate blood flow to the heart. During the test, a small amount of radioactive tracer is injected into a vein. A special camera, called a gamma camera, detects the radiation released by the tracer to produce computer images of the heart.

Combined with exercise, the test can help determine if there is adequate blood flow to the heart during activity versus at rest.

What to expect during the test?

- A nuclear medicine technologist will place an IV into a vein in your arm or hand and inject a small amount of radioactive tracer. The tracer is not a dye or contrast. After the tracer is injected, you will wait about 20 minutes before the first set of "resting" images are taken.
- Then you will be asked to lie very still under the gamma camera with both arms above your head for about 15 to 20 minutes. The camera will record images that show blood flow through your heart at rest.
- Next, a technician will place electrodes on your chest to monitor your EKG.
- You will start walking on a treadmill. At regular intervals, the difficulty of the exercise will increase until you achieve the target heart rate. Then, a second dose of radioactive tracer will be injected into the IV. Your heart rate, EKG and blood pressure will be monitored throughout the test. If you are unable to achieve your target heart rate, a medication may be given to simulate exercise.
- About 30 minutes after exercising, you will be asked to again lie very still under the camera with both arms over your head for about 15-20 minutes. The camera will record images that show blood flow through your heart during exercise. These images will be compared to the first set.

Can I eat or drink on the day of the test?

Yes. However, **avoid all products containing caffeine for 24 hours** before the test. In general, caffeine is found in coffee, tea, colas, Mountain Dew® and chocolate products. Also **avoid decaffeinated or caffeine-free products for 24 hours** before the test, as these products contain trace amounts of caffeine.

Should I take my medications the day of the test?

- **Avoid Medications with caffeine:** DO NOT take any over-the-counter medication that contains caffeine (such as Excedrin®, Anacin®, diet pills and No Doz®) for 24 hours before the test.
- **If you take heart medications:** DO NOT take the following heart medications **on the day of the test** unless your physician tells you otherwise, or unless it is needed to treat chest discomfort the day of the test:
 - Isosorbide dinitrate (for example: Dilatrate®, Isordil®)
 - Isosorbide mononitrate (for example: Imdur®, ISMO®, Monoket®)
 - Nitroglycerin (for example: Minitran®, Nitropatches®, Nitrostat®)
 - Dipyridamole (Persantine®): Stop taking 48 hours before the test.

What should I wear for the test? Please wear comfortable clothes and shoes suitable for walking during the test.

How long will the test last? The appointment will take about 2 to 3 hours. The actual exercise part of the test lasts about 7-12 minutes.