

Lexiscan/Dobutamine Nuclear Stress Test Patient Education

A nuclear cardiac stress test is a one or two day diagnostic test using a radioactive tracer combined with cardiac imaging to determine if the heart is receiving an adequate blood supply at rest and exercise. Exercise is a form of body stress. Our physician has determined that a traditional treadmill test might not produce accurate results. Therefore, a Lexiscan or Dobutamine Nuclear Stress Test has been ordered, which uses medication to stress the heart, just as if you were exercising. Lexiscan is a short-acting medication that has the effect of dilating blood vessels to simulate exercise. Dobutamine is a pharmacologic or medication stress test which increases both the heart rate and the force of contraction of the heart, which simulates exercise. A cardiac stress test may check for risks of a possible heart problem or diagnose an existing heart problem.

After fasting for 3 hours prior (drinking water is allowed and recommended) to the testing and avoiding all caffeinated products for 24 hours prior to the testing you will then arrive for your appointment. First, you will have an IV placed in your arm or hand and will be injected with a radioisotope. You will be asked to drink water in the waiting room for about 15 minutes to allow your system to be flushed to get the best possible pictures of your heart. After that, you will then get pictures taken of your heart at its resting stage. During this process you will need to sit still for about 20 minutes as the machine takes pictures of your heart at different angles. You may be asked to change clothes if your shirt has metal on it, as it could interfere with the pictures.

You will then be injected with Lexiscan or Dobutamine, which mimics exercise. While doing this, your heart will be watched on a monitor. An electrocardiogram (EKG) is used to have tracings of your heart activity. Your caregiver will be watching you during this test. Your breathing, blood pressure, and heart rate are also checked. You may get tired, have trouble breathing, or start having chest pains while doing the test. Your caregiver may give you medicines or ask you not to continue doing the test.

A cardiac stress test has risks. Problems can happen during or after the test. Your blood pressure may decrease, and you may feel dizzy, lightheaded, and weak. You may feel your heart throbbing or have extra heartbeats. You may experience chest pain, or in very rare cases, have a heart attack. Caregivers are there before, during, and after the test to help you. Do not hesitate to call your caregiver if you are worried or have questions about the test, your medicine or care.

Vital signs: This includes taking blood pressure, pulse (counting your heartbeat), and respirations (counting your breaths). To take your blood pressure, a cuff is put on your arm and tightened. The cuff is attached to a machine which gives your blood pressure reading. Caregivers may listen to your heart and lungs by using a stethoscope. Your vital signs are taken so caregivers can see how you are doing.

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Electrodes (sticky patches) are put on your chest and attached to the electrocardiogram (EKG) monitor and recorder. A baseline EKG is then recorded on paper. Additional recordings are made during and following the Lexiscan or Dobutamine.

During the test, your heart rhythm is always shown on a heart monitor. This allows your caregiver to watch out for EKG changes and arrhythmias (irregular heartbeats). When you reach your target heart rate, you will be injected with the radioactive isotope again, allowing significant circulation and accumulation of the isotope in your heart. Three electrodes remain on your chest after the test is done that are used for nuclear stress images.

After the test, you will be monitored until your EKG, heart rate and your breathing return to normal.

It is important that you communicate with your caregiver at all times during the test and let them know if you are experiencing any symptoms such as chest pain, shortness of breath, leg pain, dizziness, or fatigue. You need to let your caregiver know if you are uncomfortable at any time.

You are able to eat a snack at this point.

You will then go through a second round of pictures to view your heart at its stressed state.

Generally, there are no symptoms or side effects from the injection of the radioisotope.

You will be asked to sign a consent form that gives caregivers permission to do certain tests, treatments, or procedures and that you understand the risks that are involved. If you are unable to give your consent, someone who has permission can sign this form for you. A consent form is a legal piece of paper that tells exactly what will be done to you. Before giving your consent, make sure all your questions have been answered so that you understand what may happen.