

What is a Nuclear Lexiscan Stress Test?

Why do I need a stress test?

This is a type of nuclear scanning test. It shows how well blood flows to the heart muscle. The lexiscan stress test involves injecting a medication called lexiscan into your IV while you are closely monitored. The medication makes the heart respond as if you are exercising. This test is used for people that are unable to exercise or can't exercise for very long.



The lexiscan stress test is useful to determine:

- If there is adequate blood flow to your heart during increasing levels of activity
- Extent of a coronary artery blockage
- Prognosis of patients who have suffered a heart attack
- Effectiveness of cardiac procedures done to improve circulation in coronary arteries
- Cause(s) of chest pain
- Estimate the risk of surgery that can cause cardiac complications

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How will I feel during the test?

The lexiscan injection may cause a warm, flushing feeling. It is normal for your breathing rate, heart rate, blood pressure, and perspiration to increase during the test. If you begin to notice chest discomfort or pain, headache, upset stomach, dizziness or other symptoms of concern such as excessive shortness of breath, please let the stress lab personnel know. The above symptoms are normal and go away typically within 3-4 minutes.

What does the nuclear lexiscan stress test show?

- If the test is normal during both sets of images, then blood flow through the coronary arteries is normal. The coronary arteries supply blood to the heart muscle.
- If the test shows that perfusion (blood flow) is normal during rest but not after the lexiscan infusion, (a perfusion defect), then the heart isn't getting enough blood when it must work harder than normal. This may be due to a blockage in one or more coronary arteries.
- If the test is abnormal during both sets of images, there's limited blood flow to that part of the heart at all times.
- If no radiolite is seen in some part of the heart muscle, the cells in this part of the heart are dead from a prior heart attack. (They have become scar tissue.)

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What happens during a nuclear lexiscan stress test?

- During the first part of your test, a nuclear medicine technologist will place an IV into a vein in your arm or hand and inject a small amount of cardiolite. Cardiolite is a radioactive tracer -- it is not a dye. It will be necessary for you to wait approximately 30 minutes after the cardiolite injection to allow it to circulate.
- You will then be asked to lie very still on a special table under a camera (“gamma camera”) with your arms over your head for about 12-15 minutes. The camera will record images that show the cardiologist how efficiently blood is circulated through the coronary arteries to each area of the heart muscle at rest.
- During the second part of your test, a stress lab technician will prep ten small areas on your chest and place electrodes (small, flat, sticky patches) on these areas. The electrodes are attached to an EKG monitor that charts your heart's electrical activity during the test.
- You will lie on an exam table while the technician performs EKG's and blood pressures while you are lying down, sitting up and standing.
- Next, a medication called lexiscan is injected into your IV by a nurse, respiratory therapist or physician over 20 seconds while you are either walking very slowly on the treadmill or sitting on the side of the exam table moving your legs in a walking motion.
- A nurse, respiratory therapist or physician will flush your IV with saline immediately after injecting the lexiscan. A small amount of cardiolite will be injected into your IV 10-20 seconds after your IV is flushed with saline.
- Your blood pressure will be taken after the cardiolite is injected into your IV and every two minutes in recovery.
- Please tell the technician immediately if you feel pain or discomfort in your chest, arm or jaw or if you feel short of breath, dizzy, headache, lightheaded or if you have any other unusual symptoms at any time during the test. The symptoms will go away typically within 3-4 minutes after the lexiscan injection.
- Your heart rate, EKG, and blood pressure are monitored throughout the test. The stress lab personnel will watch for any changes on the EKG monitor that suggest the test should be stopped. A physician is available if needed.
- When the lexiscan portion of the test is completed, your IV will be taken out. You will wait for approximately 30-60 minutes after the cardiolite injection to allow it to circulate, then you will be asked to again lie very still under the camera with your arms over your head for about 12-15 minutes. The camera will record images that show the cardiologist how well blood circulates through the coronary arteries to each area of the heart muscle during cardiac stress. If a part of the heart muscle doesn't receive a normal blood supply, less than a normal amount of cardiolite will be in those heart muscle cells.

Instruction checklist for the nuclear lexiscan stress test:

- Call the Pre-registration dept. at (419) 423-5304, at least 24 hours prior to your test to update any of your personal information. This will save you time on the day of your test. Also call (419) 423-5110 at least 24 hours prior to the test date to confirm your appointment.
- Bring a list of medications you take with you to the test. Include the name and dosage amounts of each medicine. This information can be found on the prescription or bottle label. **Do not** take any of your medications unless instructed otherwise by your physician.
 If you have asthma, please bring your inhaler medication with you.
 If you have diabetes, ask your physician how to adjust your medications the day of your test.
- Please refrain from any strenuous exercise or activities the day before your test, or the day of the test.
- Do Not eat or drink anything 4 hours prior to your testing time. (It is okay to drink small amounts of water during the 4 hours prior to the test.) The last meal you eat prior to the test should be a low fat meal.
- **Do Not** drink or eat foods containing **CAFFEINE** for **12 hours** prior to your test. Products labeled decaffeinated and caffeine-free contain trace amounts of caffeine and should also be avoided. Caffeine will interfere with the results of your test. If you have had caffeinated products within 12 hours of your test, you will be rescheduled.
- Do Not smoke the day of the test! Nicotine will interfere with the results of your test.
- Wear loose fitting, comfortable clothing. Pants or shorts and short sleeve shirts are preferred. (No long sleeves.) Do not wear one-piece undergarments or body suits. Wear tennis or crepe soled shoes.
- **Parking:** Please use our FREE valet service at the Center for Diagnostic Studies (CDS) for the easiest of parking. You can also park in the CDS parking lot or use the parking garage.
- **Register:** Please check in at the Center for Diagnostic Studies registration department on the first floor to pick up your paper work and they will direct you to the Heart Care Center.
- The Nuclear Lexiscan Stress Test takes about 2 ½ – 3 hours to complete.
- If you need to CANCEL your appointment, Please call (419) 429-7623. We request you cancel your appointment by **2 a.m.** the day of your appointment if at all possible.
- If you need to CHANGE your appointment date/time, Please call **CENTRAL SCHEDULING** at (419) 423-5323.
- If you have any QUESTIONS about the test, Please call (419) 423-5110. Please leave a message if prompted to do so. We will return your call as soon as possible.