



CSF Leak Scan

How to prepare for your procedure

A CSF leak scan is a diagnostic nuclear medicine procedure used to evaluate abnormalities involving the cerebral spinal fluid (CSF) located within the central nervous system.

What is a CSF leak scan?

A CSF leak scan is a nuclear medicine exam that uses a radioactive compound to diagnose problems affecting the draining of cerebral spinal fluid (CSF). The scan is a form of radiology, because radiation is used to capture pictures of the human body.

How do I prepare for the scan?

- Your doctor may order a special blood test for this exam. The blood test may be done ahead of time or on the day of the exam to check your blood's ability to clot.
- If you take blood-thinning medicine such as Coumadin (Warfarin), Plavix, or Lovenox, consult your primary care doctor about stopping it before your exam and restarting it after the exam.
- Other medicines, such as those for diabetes, may also need to be adjusted. Please consult your doctor.

On the day of the exam:

- Do not eat anything 6 hours before your exam. You may have clear fluids such as water or tea; grape, apple, or cranberry juice; and Jell-O and popsicles up until 2 hours before your exam.
- You may take your usual medicines with a small sip of water.
- Bring your medicines with you when you come for your exam, so that the staff can review them.
- Arrange to have someone drive you home. For your safety, you may not drive until your doctor tells you it is OK.

How is the scan performed?

1. You will first go into the fluoroscopy room of the radiology department. You will lie face-down on an X-ray table. You will be checked to find the best place to insert the needle. Your skin will be cleaned and numbed with a local anesthetic. Usually, you will be placed lying on one side with your knees drawn up and chin tucked into your chest while the spinal needle is inserted.

Questions?

Your questions are important. Call your doctor or health care provider if you have questions or concerns. UWMC Nuclear Medicine staff are also available to help at any time.

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2. You will be given a small dose of a radioactive material into the *subarachnoid space*. This compound, called a *tracer*, follows the flow of CSF and will give off gamma rays. Pictures of your spine will be projected onto a screen.
3. The doctor will remove the needle from your back. You will then go to the nuclear medicine department for imaging on a gamma camera.
4. The gamma camera detects the rays. A computer will then produce pictures of the CSF based on the detected gamma rays.
5. The technologist will take pictures right after the injection, and then 4 hours, 24 hours, and possibly 48 hours after the injection.
6. The imaging involves lying flat while the camera takes pictures of your CSF. You must not move while the camera is taking pictures. If you move, the pictures will be blurry and may have to be repeated. The technologist will help make you comfortable. You will be able to get up between imaging times.
7. After the injection, you may have *pledgets* (small pieces of absorbent fabric) placed into your nasal sinus and/or ears. These pledgets will be removed 4 hours after being placed. New pledgets will be placed and removed 24 hours later.
8. The study may take up to 2 days to complete. Each imaging session lasts about 1 hour.

What will I feel during the scan?

You will feel a brief sting when local anesthetic is injected and slight pressure as the spinal needle is inserted. Placing the needle may cause occasional sharp pain.

Although you may find the face down position uncomfortable or have trouble breathing deeply or swallowing, the position is not usually maintained for very long. Some minor discomfort may arise from the placement of the pledgets into your nasal sinuses/ears.

After the injection, you will need to lie flat on your back for up to 4 to 6 hours. Lying still on the exam table may be hard for some patients.

Who reads the scan and when will I get the results?

When the test is over, the nuclear medicine doctor will review your images, prepare a written report, and discuss the results with your doctor. Your doctor will talk with you about the results and discuss your treatment options. Talk to your doctor to find out whether or not you will need to restart any medicines that you stopped for this exam.

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