

## CSF Leak Scan

### *How to prepare and what to expect*

*This handout explains a cerebral spinal fluid (CSF) scan. It tells how to prepare, how the scan is done, what you will feel, and how to get your results.*



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### **What is a CSF leak scan?**

CSF stands for *cerebrospinal fluid*. CSF surrounds and protects the brain and spinal cord. It is held in place by a membrane. A CSF leak scan is done to find out if this fluid is leaking through the membrane that usually holds it in place.

A CSF leak scan is a nuclear medicine scan. It uses a radioactive compound to diagnose problems affecting the draining of CSF. It takes place over 2 to 3 days.

The radioactive drug used in this scan is ordered especially for you. Because of this, we need at least 72 hours' notice if you must cancel or reschedule your scan.

**Call 206.598.4240 at least 72 hours before your appointment if you need to cancel or reschedule your scan.**

### **How do I prepare?**

- Your doctor may want you to have a blood test before your scan to check how well your blood clots. The test may be done ahead of time or on the day of your scan.
- If you take blood-thinning medicine such as Coumadin (warfarin), Plavix, or Lovenox, talk with your primary care doctor about stopping it before your scan and restarting it after your scan.
- If you take Diamex, do not take it starting 2 days before your scan. When your scan is completed, you may take it again.



*A CSF leak scan uses a gamma camera to take pictures of your spine.*

- If you take other medicines, such as diabetes medicines, talk with your doctor. Your doses may need to be adjusted before you have your CSF leak scan.

### **On the Day of the Scan**

- Starting **6 hours** before your scan, do not eat anything.
- Up until 2 hours before your scan, you may have clear fluids such as water or tea (without milk), or grape, apple, or cranberry juice. You may also have Jell-O and popsicles.
- Starting **2 hours** before your scan, do not eat or drink anything.
- If needed, you may take your usual medicines with a small sip of water.
- Bring your medicines with you when you come for your scan.
- For your safety, we **strongly advise** that you have a responsible adult drive you home. If you take a bus or taxi, you should have a responsible adult ride with you.

### **How is the scan done?**

- 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 a local *anesthetic* (numbing medicine) will be injected into the area.
- You will then be positioned so that your doctor can insert the spinal needle. Most times, this means you will lie on one side with your knees drawn up and your chin tucked into your chest.
- You will be given a small dose of a *tracer* (radioactive material) into the *subarachnoid space* (the space between your spinal cord and the surrounding membrane). The tracer gives off gamma rays as it follows the flow of CSF.
- Your doctor will remove the needle from your back. You will then go to the nuclear medicine department, where a technologist will use a gamma camera to take pictures of your spine.
- The gamma camera detects the gamma rays given off by the tracer. A computer will create pictures of your CSF from the gamma rays.
- The technologist will take pictures right after the tracer injection, and then 4 hours, 24 hours, and possibly 48 hours after the injection.
- You will need to lie flat while the camera takes pictures of your CSF. The technologist will help make you comfortable.

- You must not move while the camera is taking pictures. If you move, the pictures will be blurry and may have to be repeated.
- You will be able to get up between imaging times.
- After the injection:
  - You may have *pledgets* (small pieces of absorbent fabric) placed into your nasal sinuses and/or ears. These pledgets will be removed 4 hours after they are placed. Then new pledgets will be placed and removed 24 hours later.
  - You will need to lie flat on your back for up to 4 to 6 hours.
- The full scan may take 2 to 3 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.
- You will feel slight pressure as the spinal needle is inserted. Some patients feel a sharp pain as the needle is inserted.
- You may find the face-down position uncomfortable or have trouble breathing deeply or swallowing. You will not need to hold this position very long.
- You may feel some minor discomfort when the pledgets are placed in your nasal sinuses/ears.
- Lying still on the exam table after the injection may be hard for some patients.

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

When the scan is over, the nuclear medicine doctor will review your images, prepare a written report, and talk with your provider about the results. Your own provider will talk with you about the results of your scan.

You may also read your results on your eCare Results page. If you need copies of your images on disc, call 206.598.6206.

You and your provider will decide the next step, such as treatment for a problem, as needed.

Talk with your provider to find out whether or not you need to restart any medicines that you stopped for this scan.

#### **Questions?**

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

- UWMC Imaging Services: 206.598.6200
- Harborview Nuclear Medicine: 206.744.4473