What is a myelogram?

A myelogram is an X-ray exam of the spinal cord and the space around it, called the subarachnoid space. X-rays are taken after injecting a contrast material through a needle placed in this space. A myelogram can show problems of the spinal cord, the spinal canal, and the spinal nerve roots. It is an effective way to locate spinal lesions caused by disease or trauma.

A myelogram is done to provide a detailed picture of the spinal cord and spinal column, and of any problems that may be present. Often, a myelogram is done when other tests – such as computed tomography (CT) scans or magnetic resonance imaging (MRI) – have not provided enough data. For patients who cannot have an MRI exam, a myelogram may be performed, followed by a CT scan.

How should I prepare for the exam?

1. 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.
2. 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 normal medications with a small sip of water.
3. Bring your medications with you when you come for your exam, so that the staff can review them.
4. If you take blood-thinning medication such as coumadin (Warfarin), Plavix, or Lovenox, consult your primary care doctor about stopping it prior to your exam and restarting it after the exam.
5. If you are diabetic and take insulin, check with your doctor about changing your dose during the time you are not allowed to eat. If you are taking pills for diabetes, let the radiologist know on the day of the exam.
6. Arrange to have someone drive you home. For your safety, you may not drive until the day after your myelogram.
How does the exam work?

Inside the spinal canal, the spinal cord and nerve roots are surrounded by a fluid-filled area, called the subarachnoid space. This fluid, called cerebrospinal fluid, serves to cushion and protect the spinal cord. For a myelogram, contrast material is injected into the subarachnoid space and X-rays are taken as the contrast flows into each area. The contrast material outlines parts of the spine that usually are not visible on normal X-rays. The table that is used for a myelogram can be tilted so that contrast material will flow up and down the spine and surround the nerve roots that enter and exit the spinal cord.

How is the exam performed?

- A myelogram is done in the X-ray department. After you lie face down on the X-ray table, fluoroscopy is performed and pictures of the spine are projected onto a screen.

- After finding the best placement for 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. In some cases, patients will be in a seated position.

- If needed, a small amount of cerebrospinal fluid will be withdrawn for lab studies. Iodine-containing contrast material is then injected and the X-ray table is slowly tilted. During this time, the flow of contrast is observed by fluoroscopy. X-rays are then taken while you are lying face down. You will be asked to lie as still as you can while the table is tilted.

- The exam focuses on the area where you are feeling symptoms: the lower back area, the middle part of the back, or the neck. A foot rest and straps or supports will keep you from sliding out of place.
• A CT scan is sometimes done right after a myelogram while contrast material is still present in the spinal canal. This blend of imaging studies is known as a CT myelogram.

What will I feel during the exam?

• You will feel a brief sting when local anesthetic is injected, and 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.
• When contrast material is injected you may feel some pressure or warmth. Headache, flushing, or nausea may follow contrast injection.
• Seizures are possible, but rare.
• A myelogram usually takes 30 to 60 minutes, and a CT scan adds another 30 to 60 minutes to the total exam time.
• After the myelogram, you will go to the short-stay observation area for about 4 hours before going home.
• You must rest at home for an additional 6 to 8 hours after the exam.
• Some patients may have a headache after the exam. Raising your head slightly on a pillow may help. You may take Tylenol. Increase your intake of fluids for the next 24 hours.
• Drink at least eight 8-ounce glasses of fluid (juice, water, sports drinks). You may return to work the next day after your exam, but do not do any heavy lifting for several days.

Who interprets the results and how do I get them?

A radiologist will review the pictures and will send a report to your primary care doctor, who will inform you of your test results. The radiologist does not discuss the results with you.