

## What is a Myelogram?

Myelography is an imaging examination that shows the passage of contrast material in the space around the spinal cord (the subarachnoid space) and nerve roots using a real-time form of x-ray called fluoroscopy.

An x-ray (radiograph) is a noninvasive medical test that helps physicians diagnose and treat medical conditions. Imaging with x-rays involves exposing a part of the body to a small dose of ionizing radiation to produce pictures of the inside of the body. X-rays are the oldest and most frequently used form of medical imaging.

When the contrast material is injected into the subarachnoid space, the radiologist is able to view and evaluate the status of the spinal cord, nerve roots, and intervertebral disks. By this means, myelography provides a very detailed picture (myelogram) of the spinal cord and spinal column. The radiologist views the passage of contrast material as it is flowing using fluoroscopy but also may take permanent static (unmoving) pictures, called x-rays or radiographs, of the contrast material around the spinal cord and nerve roots in order to document abnormalities. In many cases, the myelogram is followed by a computed tomography (CT) scan to better define abnormalities.

## What are some common uses of the procedure?

Magnetic resonance imaging (MRI) is often the first imaging exam done to evaluate the spinal cord and nerve roots. However, on occasion, a patient has medical devices, such as a cardiac pacemaker, that may prevent him or her from undergoing MRI. Sometimes, myelography and/or a CT scan is performed in conjunction with MRI to better define abnormalities.

Myelography is most commonly used to detect abnormalities of the spinal cord, the spinal canal, the spinal nerve roots and the blood vessels that supply the spinal cord, including:

- to show whether herniations of the material between the vertebral bodies, termed the intervertebral disks, are pushing on nerve roots or the spinal cord.
- to depict a condition that often accompanies degeneration of the bones and soft tissues surrounding the spinal canal, termed spinal stenosis. In this condition, the spinal canal narrows as the surrounding tissues enlarge due to the development of bony spurs (osteophytes) and the adjacent ligaments.

Myelography can also be used to assess the following conditions when MR imaging cannot be performed, or in addition to MRI:

- tumors
- infection
- inflammation of the arachnoid membrane that covers the spinal cord
- spinal lesions caused by disease or trauma

A myelogram can show whether surgical treatment is promising in a given case and, if it is, can help in planning surgery.

A myelogram is a test that helps your doctors look at the nerves and spinal cord in the spine.

