

SPINAL ENDOSCOPY

There are many causes of chronic low back pain and radicular pain. A common cause is nerve root irritation and inflammation due to the development of scar tissue and adhesions, which encapsulate nerve roots. This may be the result of a previous back surgery. The associated swelling results in nerve root compression and exaggerates the sensory and motor abnormalities.

Current treatment modalities include epidural steroid injections, repeat surgery, intrathecal pumps or spinal cord stimulators. Pumps and stimulators require surgery, are expensive to insert and expensive to maintain. Repeat surgery is expensive and usually results in the formation of more scar tissue. Epidural steroid injections, the most popular treatment, may be limited by the scar tissue and adhesions encapsulating the nerve roots. Since injected material will take the path of least resistance, scar tissue may inhibit the injected medication from reaching the inflamed nerve roots.

Spinal endoscopy is a minimally invasive technique that is indicated for patients suffering from chronic back pain and radicular pain that failed conservative therapy. These patients often have nerve roots that are encapsulated in adhesions that may be causing traction of the nerve root and chronic inflammation.

Spinal endoscopy enables the physician to identify pain generators; to provide a visual aid in releasing nerve roots from scar tissue and adhesions; and to provide directed drug therapy. The epidural space can be accessed safely with the steerable Video Guided Catheter and flexible fiberoptic endoscope via the sacra hiatus. One advantage of entering through the sacral hiatus is that it allows for a multi-segmental examination of the lumbrosacral epidural space, as opposed to a foraminal approach, which would limit the examination to a single nerve root. Once access is made, the epidural space can be dilated with normal saline injected through the working channel of the Video Guided Catheter. The steerability gives the physician the ability to maneuver the Video Guided Catheter towards the areas of interest. This technique allows for a direct visual examination of a specific nerve root, associated pathology, and the subsequent diagnosis and treatment.

Endoscopy has proven to be a safe, cost effective option to some traditional surgical procedures. We believe that endoscopy of the spine will offer significant benefits to people suffering from certain types of back pain.

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FREQUENTLY ASKED QUESTIONS

Spinal Endoscopy is a procedure used to diagnose the causes of chronic radicular back pain. Using an instrument called a Flexible Fiberoptic Endoscope and steerable Video Guided Catheter, your doctor can visually inspect your epidural space and help determine why you are having pain.

I already had an MRI. Is Spinal Endoscopy any different?

The MRI, CAT scan and myelogram are unable to completely and accurately detect all scar tissue or adhesions. Furthermore, these diagnostic tools provide the physician with only a black and white “snapshot,” of the epidural space.

Using a spinal endoscope, the doctor can examine the entire epidural space. He or she will be able to see inflamed nerve roots and the color, texture and severity of diseased tissue directly on a TV screen.

Will the doctor be able to treat my pain?

Your doctor may be able to separate much of the scar surrounding the inflamed nerve roots, which will allow medications to reach the nerve roots directly.

Where will the procedure be performed?

Most pain doctors perform spinal endoscopy in a hospital or ambulatory surgery center operating room. In some instances, they elect to do the procedure in a “special procedure” room. Both types of rooms have all the necessary equipment to ensure your safety and comfort. Spinal Endoscopy is an outpatient procedure. This means you will go home within a few hours.

What happens during the procedure?

A nurse will insert an intravenous line in your arm and you will lie on the operating table face down. Although you are awake for the procedure you will receive medication to sedate and relax you. The doctor will inject a local anesthetic in the lower part of your back. You will probably feel a stinging sensation similar to that felt during dental work. The doctor will then insert a needle to locate the epidural space. A small plastic tube called a cannula is placed in the epidural space. Once in the epidural space, the doctor will slowly advance the fiberoptic spinal endoscope to locate the area causing pain. You may feel some pain as the endoscope moves close to the inflamed nerves. In fact, the doctor may replicate your pain and ask you if this is the type of pain you usually experience. At this time the doctor may choose to render appropriate treatment.

Afterwards, you will be taken to the recovery area where nurses will monitor your blood pressure, heart rate and temperature to make sure you have tolerated the procedure well. You will then be discharged to home. It is very important that you have someone drive you home.

How long will it take to feel relief?

Some patients experience a decrease in pain almost immediately. However, this is usually temporary. It can take up to 36 hours for the medication to take effect. In fact, you may experience some increased pain during this time. Once the medication starts working you may experience further pain relief.

Are there any instructions I need to follow at home?

Activities: You will probably have soreness at the site where the endoscope was inserted. Apply an ice pack wrapped in a towel to the sore area. If this does not help, then try a heating pad or hot bath.

After the procedure go home and rest for 2 days. When sitting or resting, changing positions frequently may help reduce stiffness and soreness. After 2 days you may resume normal activities providing you listen to your body. Your body will tell you how active or inactive to be. Remember the rule of thumb: **“If it hurts don’t do it.”** Also, do not drive a motor vehicle, operate machinery or make important decisions for 24 hours after the procedure.

You may begin to feel significantly better after several days. Be cautious and do not push yourself. Increase your level of activity slowly, allowing time for your muscles to get stronger.

Diet: There are no restrictions on the food you eat. Since it is important not to strain while having a bowel movement eat foods that are high in fiber and eliminate those food which may cause constipation. If necessary, you may want to use a stool softener for a few days.

Medications: Take your regular medications.

Remember: Report any unusual symptoms to your doctor, especially fever, nausea, vomiting, headache, new or significantly increased pain, and excessive drainage at the insertion site.