



## Is Surgery Helpful For Spinal Stenosis?

When symptoms return repeatedly because of severe pressure on the nerves, surgery to relieve the pressure on the affected nerves or spinal cord may be recommended. Removal of the obstruction that has caused the symptoms usually gives patients significant relief. Most patients have less leg pain and are able to walk better following surgery with less restrictions from pain.

## How Is It Diagnosed?

Your doctor may order one or more special tests to help confirm your diagnosis, rule out other problems, and pinpoint the source of your back pain.

- **X-rays** show the general condition of your vertebrae (bones), and are very helpful in determining the cause of pain. Although x-rays cannot reveal a ruptured disc, for instance, they may reveal a narrowed disc space which can be an indication of trouble in that area of the spine. Standing x-rays show overall posture and alignment while flexion and extension x-rays show instability.

- **MRIs** (Magnetic Resonance Imaging) and **CTs** (Computerized Tomography) produce detailed computer images of soft tissues and bones. MRIs are especially beneficial for the study of soft-tissue abnormalities such as disc degeneration, protrusion, or rupture. CT scans give a cross-section view of the spine and can show a bulging or ruptured disc. CT scan show bone detail the best.

- **EMGs** (Electromyography) measure the electrical activity of your muscles' contractions. They detect nerve or muscle irritation and damage.
- **Bone scans** can reveal abnormal bone activity.

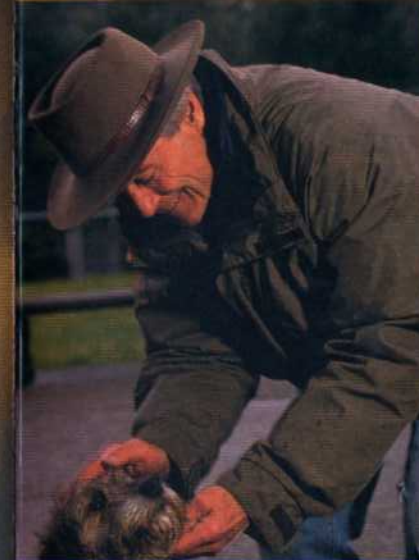
## Contributing to the Community's Health

Frequently people inquire as to how they may make a contribution to the community's health. We encourage you to consider Glendale Adventist Medical Center's Healthcare Foundation whenever you or your family desire to make a difference in the health of our community. For more information, please call (818) 409-8055.

**Physician Referral (818) 409-8100**

# Understanding Spinal Stenosis

at Glendale Adventist Medical Center



There are a number of options for treating spinal stenosis, each with their advantages and disadvantages.

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Glendale Adventist Medical Center



## What Is Spinal Stenosis?

Spinal stenosis is a narrowing of the spinal canal. There are many potential causes for spinal stenosis including: aging, heredity and changes in the blood flow to the lumbar spine. The most common cause of spinal stenosis is aging combined with osteoarthritis. Spurs may develop on the bones and into the spinal canal. With heredity, if the spinal canal is too small at birth, symptoms may show up in a relatively young person.

## What Are the Symptoms?

When narrowing places pressure on the spinal cord or nerve roots, there may be a slow onset and progression of symptoms. You may feel pain and difficulty when walking aggravated by activity, numbness, tingling, buttock pain, hot or cold feelings, weakness, or a heavy and tired feeling in the legs. People with more severe stenosis may experience abnormal bowel and bladder function as well as loss of foot control.

## What Do X-rays Show?

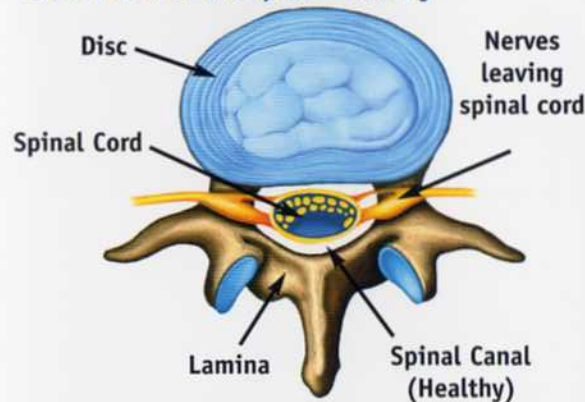
X-rays show the bony spurs and narrowing of the inside of the canal. However, x-rays do not show nerve problems or the internal structure of the spinal cord.

## What Other Tests Are Needed?

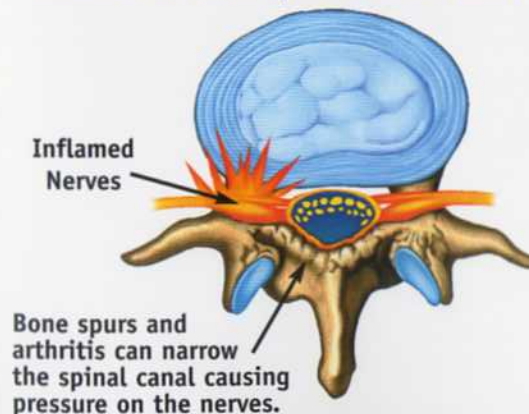
CT scans and MRI scans are used to reveal the relationship between nerves and the bony structure of the spine. If nerve damage or nerve irritation is suspected, EMG (Electromyography) and nerve conduction studies are very helpful. Information from these tests help to locate the specific vertebrae and spinal nerves involved, allowing a diagnosis and an appropriate treatment program.

### Anatomy of the Spine

#### Vertical View of the Spine – Healthy



#### Vertical View of the Spine – With Stenosis



## What Treatments Are Available?

Anti-inflammatory medicines, taken by mouth, are the first line of treatment. If symptoms persist, a more specific and potent anti-inflammatory medication (a cortisone type drug) can be injected into the site of irritation. This is done by a procedure called Epidural Steroid Injection (ESI) or selective cortisone injections.

People with spinal stenosis may also find changing their posture can offer some relief of pain. Flexing the spine by leaning forward while walking may make it easier for stenosis sufferers to walk longer distances. Losing weight can also help relieve some of the load on the spine.

## What Can Physical Therapy Offer?

Relieving the pain is the first step. The main goal of physical therapy however, is to keep the problem from returning. Special exercises are taught to place the back in positions which give the most room in the spinal canal, and to avoid positions which make the canal narrow. If the muscles are tight and weak, aquatic exercise may first be necessary so that posture exercises will be effective. Exercising in water reduces the effect of gravity and allows you to move freely. A program of individually tailored exercises can be developed for use at home.