

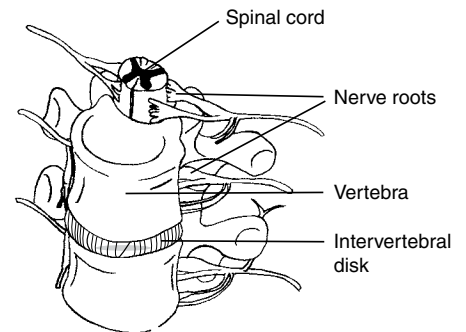
# What Is Spinal Stenosis?

## *Fast Facts: An Easy-to-Read Series of Publications for the Public*

The spine, a row of 26 bones in your back, allows you to stand up straight and bend over. The spine also protects your spinal cord from being hurt. In people with spinal stenosis, the spine is narrowed in one or more of three parts:

- The space at the center of the spine
- The canals where nerves branch out from the spine
- The space between vertebrae (the bones of the spine).

This narrowing puts pressure on the spinal cord and nerves and can cause pain.



**Section of the Spine**

## **Who Gets Spinal Stenosis?**

Spinal stenosis is most common in men and women over 50 years old. Younger people who were born with a narrow spinal canal or who hurt their spines may also get spinal stenosis.

## **What Causes Spinal Stenosis?**

### Aging

Changes that occur in the spine as people get older are the most common cause of spinal stenosis. As people get older:

- The bands of tissue that support the spine may get thick and hard.
- Bones and joints may get bigger.
- Surfaces of the bones may bulge out (these are called bone spurs).

### Arthritis

In some cases arthritis, a degenerative (gets worse over time) condition can cause spinal stenosis. Two forms of arthritis may affect the spine: osteoarthritis and rheumatoid arthritis.

### Osteoarthritis:

- The most common form of arthritis
- Most often occurs in middle-aged and older people
- Doesn't go away
- May involve many joints in the body
- Wears away the tough tissue (cartilage) that keeps the joints in place
- Causes bone spurs and problems with joints.

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Rheumatoid arthritis:

- Affects most people at a younger age than osteoarthritis
- Causes the soft tissues of the joints to swell and can affect the internal organs and systems
- Is not a common cause of spinal stenosis
- Can cause severe damage, especially to joints.

Inherited Conditions

Some people are born with conditions that cause spinal stenosis. For instance, some people are born with a small spinal canal. Others are born with a curved spine (scoliosis).

Other Causes

Other causes of spinal stenosis are:

- Tumors of the spine
- Injuries
- Paget's disease (a disease that affects the bones)
- Too much fluoride in the body
- Calcium deposits on the ligaments that run along the spine.

### **What Are the Symptoms of Spinal Stenosis?**

There may be no symptoms of spinal stenosis, or symptoms may appear slowly and get worse over time. Signs of spinal stenosis include:

- Pain in the neck or back
- Numbness, weakness, cramping, or pain in the arms or legs
- Pain going down the leg
- Foot problems.

One type of spinal stenosis, cauda equine syndrome, is very serious. This type occurs when there is pressure on nerves in the lower back. Symptoms may include:

- Loss of control of the bowel or bladder
- Problems having sex
- Pain, weakness, or loss of feeling in one or both legs.

If you have any of these symptoms, you should call your doctor right away.

### **How Is Spinal Stenosis Diagnosed?**

To diagnose spinal stenosis, your doctor will ask about your medical history and conduct a physical exam. Your doctor may also order one or more tests, such as:

- X rays

- Magnetic resonance imaging (MRI)—a test that uses radio waves to look at your spine
- Computerized axial tomography (CAT)—a series of x rays that give your doctor a detailed image of your spine
- Myelogram—a test in which the doctor injects liquid dye into your spinal column
- Bone scan—a test in which you are given a shot of radioactive substance that shows where bone is breaking down or being formed.

### Who Treats Spinal Stenosis?

Because spinal stenosis has many causes and symptoms, you may require treatment from doctors who specialize in certain aspects of the condition. Based on your symptoms, your doctor may refer you to:

- Rheumatologists (doctors who treat arthritis and related disorders)
- Neurologists and neurosurgeons (doctors who treat diseases of the nervous system)
- Orthopedic surgeons (doctors who treat problems with the bones, joints, and ligaments)
- Physical therapists.

### What Are Some Nonsurgical Treatments for Spinal Stenosis?

There are many nonsurgical treatments for spinal stenosis. Your doctor may prescribe:

- Medicines to reduce swelling
- Medicines to relieve pain
- Limits on your activity
- Exercises and/or physical therapy
- A brace for your lower back.

### When Should Surgery Be Considered?

Your doctor will likely suggest nonsurgical treatment first unless you have:

- Symptoms that get in the way of walking
- Problems with bowel or bladder function
- Problems with your nervous system.

Your doctor will take many factors into account in deciding if surgery is right for you. These include:

- The success of nonsurgical treatments
- The extent of the pain
- Your preferences.

### What Are Some Alternative Treatments for Spinal Stenosis?

Alternative treatments are those that are not part of standard treatment. For spinal stenosis, such treatments include chiropractic treatment and acupuncture. More research is needed on the value of these treatments. Your doctor may suggest alternative treatments in addition to standard treatments.

### What Research Is Being Done on Spinal Stenosis?

Questions about spinal stenosis that scientists are trying to answer include:

- Which is more effective in treating spinal stenosis, surgery or other treatments?
- Can MRIs identify who should have surgery?

These studies are still ongoing, but results so far indicate that surgery is generally more effective than nonsurgical treatments. Nonsurgical treatments, however, were shown to improve patient function to some extent.

### For More Information About Spinal Stenosis and Other Related Conditions:

#### **National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)**

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The information in this publication was summarized in easy-to-read format from information in a more detailed NIAMS publication. To order the Spinal Stenosis Q&A full-text version, please contact NIAMS using the contact information above. To view the complete text or to order online, visit <http://www.niams.nih.gov>.