



Spinal Stenosis

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Spinal stenosis (or narrowing) is a common condition that occurs when the small spinal canal, which contains the nerve roots and spinal cord, becomes compressed. This causes a “pinching” of the spinal cord and/or nerve roots, which leads to pain, cramping, weakness or numbness. Depending on where the narrowing takes place, you may feel these symptoms in the lower back and legs, neck, shoulder or arms.

Usually, the narrowing is caused by [osteoarthritis](#), or “wear and tear” arthritis, of the spinal column and discs between the vertebrae (the bones of the back). It may also be caused by a thickening of the ligaments in the back, as well as by a bulging of the discs that separate the vertebrae. Symptoms of spinal stenosis often start slowly and get worse over time. Pain in the legs may become so severe that walking even short distances is unbearable. Frequently, sufferers must sit or lean forward over a grocery cart, countertop or walker to temporarily ease pain.

Fast Facts

- Spinal stenosis is usually the result of osteoarthritis, which can cause a pinching of the spinal cord or nerve roots.
- There is no cure for this disease but there are steps you can take to reduce pain and improve your flexibility (your ability to bend and move about).
- Exercise is very important in the treatment of this disease.

What is spinal stenosis?

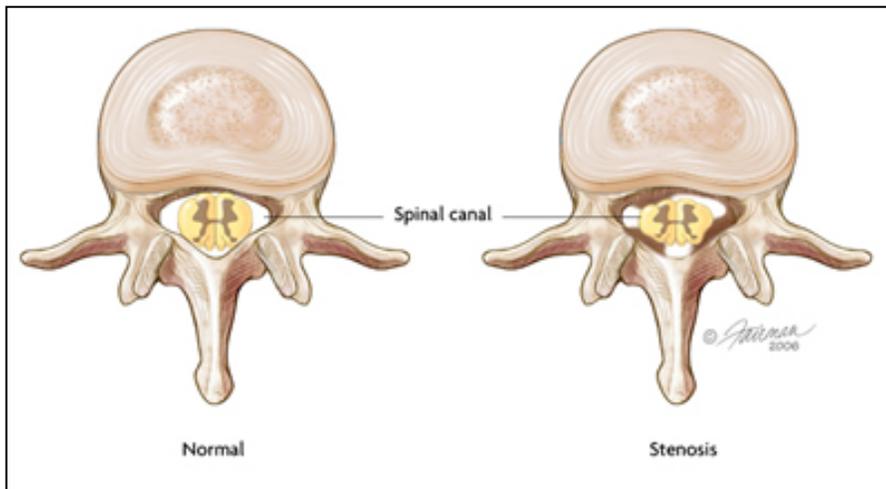
Spinal stenosis is a narrowing of one or more areas of the spine. This narrowing, which occurs most often in the lower back or neck, can put pressure on the spinal cord or nerves that branch out from the squeezed areas.

Typically, a person with this condition complains of severe pain in the legs, calves or lower back when standing or walking. Pain may come on more quickly when walking up or down a hill, a ramp or steps. Usually, it is relieved by sitting down or leaning over.

However, not all patients with spinal narrowing develop symptoms—and we still don't understand why. Because of this, the term "spinal stenosis" actually refers to the *symptoms* of pain and not to the narrowing itself.

What causes spinal stenosis?

Some people are born with a small spinal canal. This is called "congenital stenosis". However, spinal narrowing is most often due to age-related changes that take place over time. This is called "acquired spinal stenosis."



The image above shows the narrowing of the spinal canal.

Who gets spinal stenosis?

The risk of developing spinal stenosis increases if:

- You were born with a narrow spinal canal
- You are female
- You are 50 years old or older
- You've had a previous injury or surgery of the spine

Some medical conditions can cause spinal stenosis. These include:

- [Osteoarthritis](#) and bony spurs that form as we age
- Inflammatory spondyloarthritis (e.g., [ankylosing spondylitis](#))
- Spinal tumors
- [Paget's Disease](#)

How is spinal stenosis diagnosed?

A rheumatologist will ask about your symptoms and medical history. If he suspects spinal stenosis, he will do a physical exam. Some symptoms he will look for include:

- Numbness, weakness, cramping or pain in the legs, thighs or feet that makes it hard to walk
- Pain that goes down the leg
- Abnormal bowel/and or bladder function
- Loss of sexual function
- In severe cases, partial or complete leg paralysis. This is considered a medical emergency and you should get to an emergency room as quickly as possible.

A rheumatologist will also consider other conditions that can cause similar symptoms, such as arthritis of the hips or knees; disorders of the nervous system; or disorders of the heart and blood vessels.

A rheumatologist may also order other tests to confirm the diagnosis and determine the seriousness of your condition. These include:

- An X-ray of the spine to check for osteoarthritis, bone spurs and narrowing of the spinal canal
- A computed tomography (CT) scan, which takes more detailed images of the back and spinal canal
- A magnetic resonance imaging (MRI) scan of the spine to take pictures of the spinal cord and nerves
- An EMG (electromyogram) to check the nerves going to your legs
- X-rays of the hips or knees, blood tests, as well as tests to check the circulation in your legs and to rule out other diseases with similar symptoms

How is spinal stenosis treated?

Although there is no cure for spinal stenosis, regular exercise, medication and in some cases surgery can provide relief.

Exercise. Regular exercise can help you build and maintain strength in the muscles of your arms and upper legs (the hip adductors and abductors, quadriceps and hamstrings). This will improve your balance, ability to walk, bend and move about, as well as control pain. A physical therapist can show you which exercises are right for you.

Medications. Over-the-counter medications such as *acetaminophen* (Tylenol), or *nonsteroidal anti-inflammatories* (commonly called [NSAIDs](#)) such as ibuprofen (Advil, Motrin) or naproxen (Aleve, Anaprox), may also relieve pain. In addition, a rheumatologist may prescribe other medications to help with pain and/or muscle spasm.

Cortisone injections. Injections directly into the area around the spinal cord (known as epidural injections) may provide a great deal of temporary, sometimes permanent, relief. These injections are usually given on an outpatient basis in a hospital or clinic setting.

Surgery. Some patients with severe or worsening symptoms (but who are otherwise healthy) may be candidates for a “decompression laminectomy.” This surgery removes the bony spurs and buildup of bone in the spinal canal, freeing space for the nerves and spinal cord. Afterwards, doctors often perform a spinal fusion to connect two or more vertebrae and better support for the spine.

Several recent studies have found that surgery produces better results than non-surgical treatment in the short term. However, results vary and, like all surgeries, this one also carries risks. These risks include blood clots in the brain and/or the legs; tears in the tissue around the spinal cord; infection; and injury to the nerve root. While surgery may bring some relief, it will not cure spinal stenosis or osteoarthritis and symptoms may recur.

Broder health impact of spinal stenosis

Spinal stenosis can lead to the slow but steady loss of strength in the legs. The severe pain caused by this condition can be quite disabling, even if you have no muscle weakness, since it greatly affects your ability to work and enjoy life.

Living with spinal stenosis

There is no cure for this condition but there are steps you can take to feel better. For example:

- **Get moving.** Regular exercise is very important, so do it often – at least three times a week for about 30 minutes. Start slowly with flexion-based (forward-bending) exercises. As you begin to feel stronger, add walking or swimming to your plan.
- **Modify activity.** Don't do anything that can trigger or worsen pain and disability such as lifting heavy objects or walking long distances.
- **Talk to your physician about pain medications, as well as alternative therapies** such as acupuncture or massage that can ease pain.

Explore non-surgical options first except in rare cases when pain, weakness and numbness comes on quickly.

Points to remember

- Medical history is key in making a diagnosis.
- Anyone over the age of 50 is at risk.
- The impact of this disease varies widely from patient to patient.
- Exercising regularly to keep muscles strong and improve flexibility boosts strength, reduces pain and improves general well-being.
- Your choice of treatment depends on how severely spinal stenosis affects your quality of life.

The rheumatologist's role in treating SPINAL STENOSIS

Spinal stenosis can seriously disrupt a person's life. The rheumatologist is often the one who makes the diagnosis and rules out other forms of rheumatic diseases. He or she will also help patients create a treatment strategy, which may include medications, exercise and physical therapy, or referral for surgical consultation.

To find a rheumatologist

For a listing of rheumatologists in your area, [click here](#). Learn more about [rheumatologists](#) and [rheumatology health professionals](#).

For additional Information

The American College of Rheumatology has compiled this list to give you a starting point for your own additional research. The ACR does not endorse or maintain these Web sites, and is not responsible for any information or claims provided on them. It is always best to talk with your rheumatologist for more information and before making any decisions about your care.

Arthritis Foundation

www.arthritis.org

The Arthritis Society

www.arthritis.ca

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