## Lumbar spinal stenosis

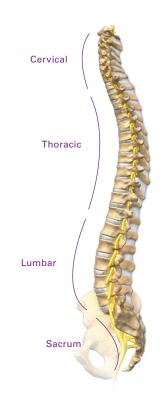
This booklet provides general information on lumbar spinal stenosis. It is not meant to replace any personal conversations that you might wish to have with your physician or other member of your healthcare team. Not all the information here will apply to your individual treatment or its outcome.

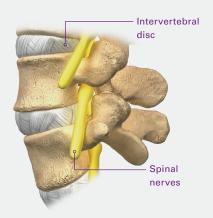


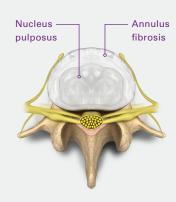
### About the spine

The human spine is made up of 24 bones or vertebrae in the cervical (neck) spine, the thoracic (chest) spine, and the lumbar (lower back) spine, plus the sacral bones.

Vertebrae are connected by several joints, which allow you to bend, twist, and carry loads. The main joint between two vertebrae is called an intervertebral disc. The disc is made of two parts, a tough and fibrous outer layer (annulus fibrosis) and a soft, gelatinous center (nucleus pulposus). These two parts work in conjunction to allow the spine to move, and also provide shock absorption.





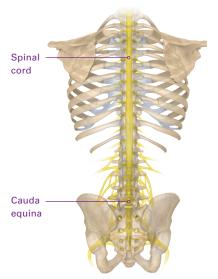


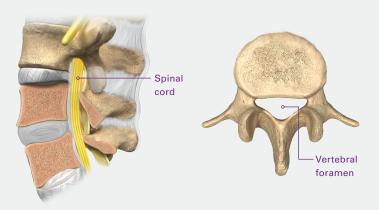
## About the spinal cord and cauda equina

Each vertebra has an opening (vertebral foramen) through which a tubular nervous structure travels. Beginning at the base of the brain to the upper lumbar spine, this structure is called the spinal cord.

Below the spinal cord, in the lumbar spine, the nerves that exit the spinal cord continue to travel through the vertebral foramen as a bundle known as the cauda equina.

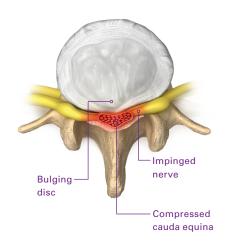
At each level of the spine, spinal nerves exit the bony spine then extend throughout the body.

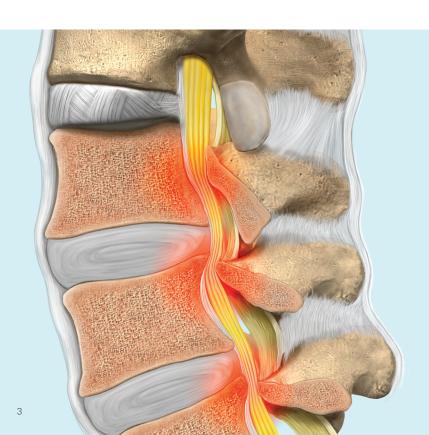




# What is lumbar spinal stenosis?

Lumbar spinal stenosis is a condition defined as the narrowing of the bone canal (vertebral foramen) where the spinal nerves, spinal cord and cauda equina pass through the spine. When this narrowing occurs, the spinal nerves and cord are compressed adding pressure which may cause pain and/or nerve damage.



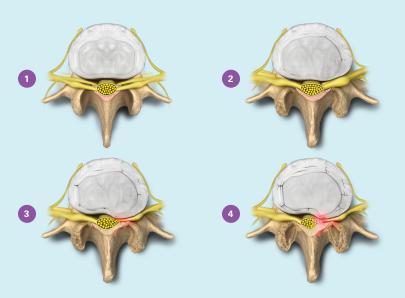


# What causes lumbar spinal stenosis?

Advanced degenerative disc disease (DDD) may cause lumbar spinal stenosis. Lumbar DDD is defined simply as the wear and tear of intervertebral discs. This wear and tear may result from normal aging or may be due to longstanding trauma. DDD typically begins with a decrease in the water content of the nucleus pulposus and tears in the annulus fibrosus, and can lead to a gradual narrowing of the vertebral foramen. A progression of DDD may result in lumbar spinal stenosis as well as other conditions (e.g., spondylolisthesis and scoliosis).

Lumbar spinal stenosis may also be caused by other factors, such as birth defects (congenital abnormalities).

#### Disc degeneration with subsequent nerve impingement



### What are the symptoms?

Symptoms of lumbar spinal stenosis may include:

- · decreased endurance during physical exercise and activities,
- weakness and/or loss of balance,
- numbness and a "prickly" feeling in your legs, calves or buttocks,
- aching, dull back pain radiating (spreading) to your legs, and
- symptoms improve when you sit, lean forward, lie on your back or sit with your feet raised.

If you feel that you are experiencing any of these symptoms, you should consult a physician for an accurate diagnosis.



#### What are treatment options?

If lumbar spinal stenosis is established, your doctor may recommend one or more of the following treatments based on your individual condition:

- physical therapy and strengthening exercises,
- · rest and a restriction of physical activity,
- injections (corticosteroids) to help reduce the pain and swelling, and
- medications and analgesics to reduce pain and swelling (typical medications include non-steroidal anti-inflammatory drugs, or NSAIDs).

### What are surgical solutions?

If your symptoms do not improve with other methods, your physician may suggest spinal surgery. Surgical solutions for lumbar DDD with resultant lumbar spinal stenosis may include the following:

- decompression surgery, such as laminectomy,
- decompression with fusion surgery,
- anterior lumbar interbody fusion (ALIF),
- posterior lumbar interbody fusion (PLIF),
- NuVasive® MAS® PLIF,
- transforaminal lumbar interbody fusion (TLIF),
- NuVasive MAS TLIF, and
- NuVasive eXtreme Lateral Interbody Fusion (XLIF®).

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Resources
For more information about spine surgery, please visit: nuvasive.com
If you would like to learn more about patient support and education for chronic back, leg, and neck pain sufferers and their loved ones, please visit:
thebetterwayback.org

If you have any questions about lumbar spinal stenosis or spine surgery, please call or visit your physician, who is the only one qualified to diagnose and treat your spinal condition. This patient information brochure is not a replacement for professional medical advice.



#### About The Better Way Back®

The Better Way Back is a nationwide patient support program created by NuVasive, a leader in developing minimally invasive, procedurally-integrated spine solutions. The Better Way Back is a free community built on the power of empathy, and is dedicated to providing hope, support, and information to individuals suffering from chronic back, leg, or neck pain.

Through its Patient Ambassador Program, The Better Way Back pairs patients considering spine surgery with patients who have previously undergone a spine procedure. Ambassadors volunteer their time to discuss their experiences in order to provide additional, first-hand perspectives.

To learn more about The Better Way Back, please



call 1-800-745-7099



visit thebetterwayback.org



text "TBWB" to **858-360-8292** 

### Lumbar spinal stenosis

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