What is Lumbar Spinal Stenosis (LSS) and What Does it Mean

Lumbar spinal stenosis is narrowing of the spinal column (aka canal) that causes pressure on the spinal cord and/or narrowing of the side openings (called neural foramina) were spinal nerves leave the spinal column. A condition which the lower spinal canal narrows and compresses the spinal nerves in the lower back. Best visualized as a "kink in a drinking straw", this compression can contribute to pain and mobility issues.

- The natural wear and tear on the spine as people age can lead to a number of contributing factors that cause the narrowing of the spinal canal and create pressure on the spinal nerves.
- As you age, the spongy disks start to shrink, and the ligaments found in the spinal canal can thicken taking up more room within the canal and apply pressure against the spinal cord or the exiciting nerve roots from the sides of the spine.
- Osteoarthritis of the spine causes an overgrowth of bone which increases pressure.
- The spongy disc can shrink or bulge increasing the pressure by taking up more room within the canal.





How Common is Lumbar Spinal Stenosis

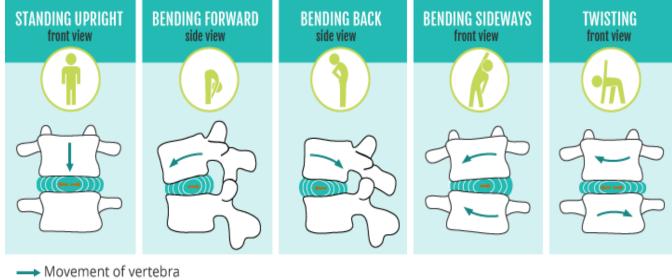
- Over 2,000,000 LSS patient's nation wider diagnosed and treated annually.
- Generally found in people over the age of 50.
- The likelihood of developing LSS increases with age.

Anatomy of the Spine

- Your spine is a column of bones that runs from your upper neck/base of the skull down to the tailbone.
- Your spine helps you to stay upright, but also flexes to allow you to bend and twist.
- The individual bones of the back are called vertebra, which are separated by spongy discs that cushion the bones, so they do not rub against each other and do not break easily.
- There is also a ligament inside the canal which runs against the side of the bone closest to the back side. This ligament is called the "ligamentum flavum".
 Its job is to bring you back to your original position when bending, twisting, or moving.

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- Certain positions can cause the ligament or disc to increase pressure against the spine, and certain positions can decrease pressure.
 Spinal Column Pressure Changes:
 - Bending forward opens the canal by opening the bones like a pressure relief/release valve
 - Bending back increases the pressure by closing in the area
 - Bending and twisting increase pressure on the disc which can lead to the disc spreading into the canal (occupying space) or into where the nerve exit the spine (neural foramina)



Movement of vertebra
 Movement of nucleus pulposis

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Symptoms:

- Low back pain that worsens with walking or standing for extended periods, usually accompanied with a feeling of weakness in the legs
- Pain, numbness or tingling in the legs or buttocks when walking.
- Low back pain that is relieved with sitting down or leaning forward (pushing the grocery cart rather than standing next to it).
 - Temporary relief when bending forward while sitting or standing as pressure on the spinal cord is released and space in the spinal canal is opened when you lean forward.
- Pain while sleeping which may be relieved by curling into the fetal position.

How is LSS Diagnosed

In addition to taking a medical history that includes a list of your symptoms, other test may be performed to verify lumbar spinal stenosis:

- Physical examination, general exam and mobility tests
- Imaging studies, such as x-rays, MRI or CT scan- this allows your physician to be able to view the contents in the canal and the amount of freedom each part has.

Treatment Options for Lumbar Spinal Stenosis

The following chart compare several options that are typically recommended for the treatment of lumbar spinal stenosis. Every therapy has risks and benefits. Only you and your doctor can decide which option is best for you

	Epidural Steroid Injections	Mild Procedure	Spacer Implants	Open Surgery (Fusion, Laminotomy, Laminectomy)
Complication Risk	Low	Low	Moderate	Moderate/High
Implants and Stitches	No	No	Yes	Yes
Recovery and Post Procedure Restrictions	Minimal	Minimal	Moderate	Moderate/Severe
Typical Duration of Results	Temporary	Lasting	Lasting	Lasting
Notes	These are typically done	Done in Outpatient Surgery center w/ Twilight	Can be Done in Outpatient Surgery center w/ Twilight	Performed in In- Patient Surgery with hospital stay

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