

## Lumbar Radiculopathy (Sciatica)

### Overview

This condition is an irritation or compression of one or more nerve roots in the lumbar spine. Because these nerves travel to the hips, buttocks, legs and feet, an injury in the lumbar spine can cause symptoms in these areas. Sciatica may result from a variety of problems with the bones and tissues of the lumbar spinal column.

### Causes (Herniated Disc)

One common cause is a herniated disc. A herniated disc is a rupture in the fibrous outer wall of a vertebral disc, which allows the soft nucleus of the disc to bulge outward. This bulge can press harmfully against a nerve root.

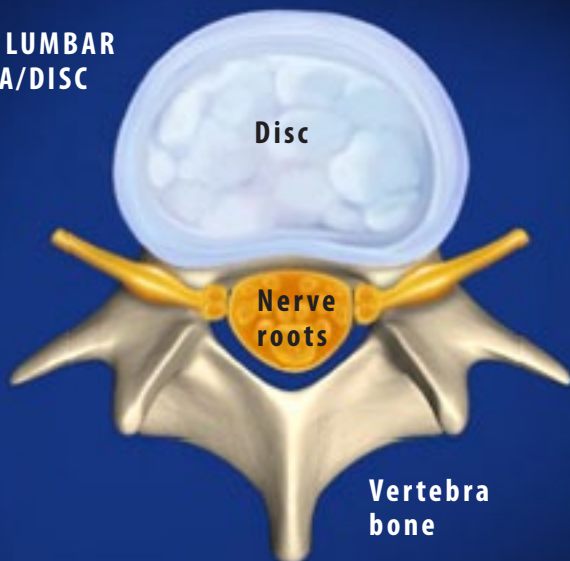
### Causes (Degenerative Disc Disease)

Another common cause of nerve root injury is degenerative disc disease. It occurs when a spinal disc weakens, allowing vertebral bones above and below the disc to shift out of position. The bones can touch, pinching nearby nerve roots.

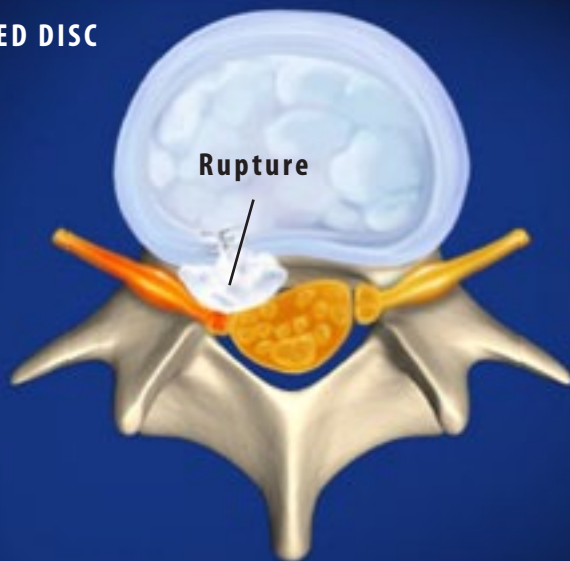
### Causes (Spinal Stenosis)

When bones, discs or joints of the spine degenerate, bony spurs may form and push into the spinal canal or foramen space. This is called spinal stenosis, and it can also create harmful pressure against the nerve roots.

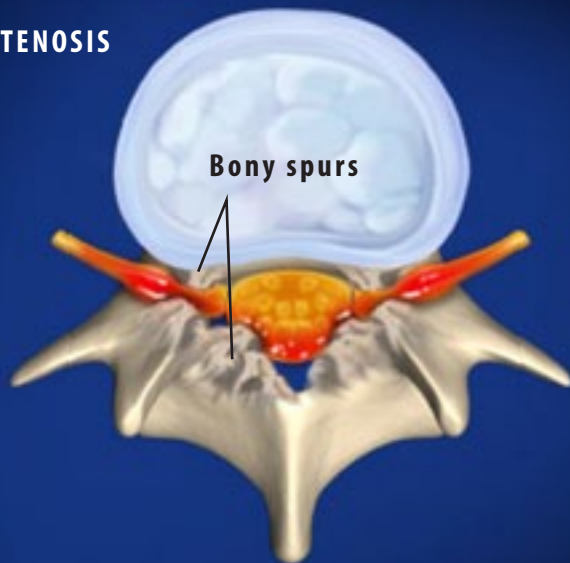
### HEALTHY LUMBAR VERTEBRA/DISC



### HERNIATED DISC

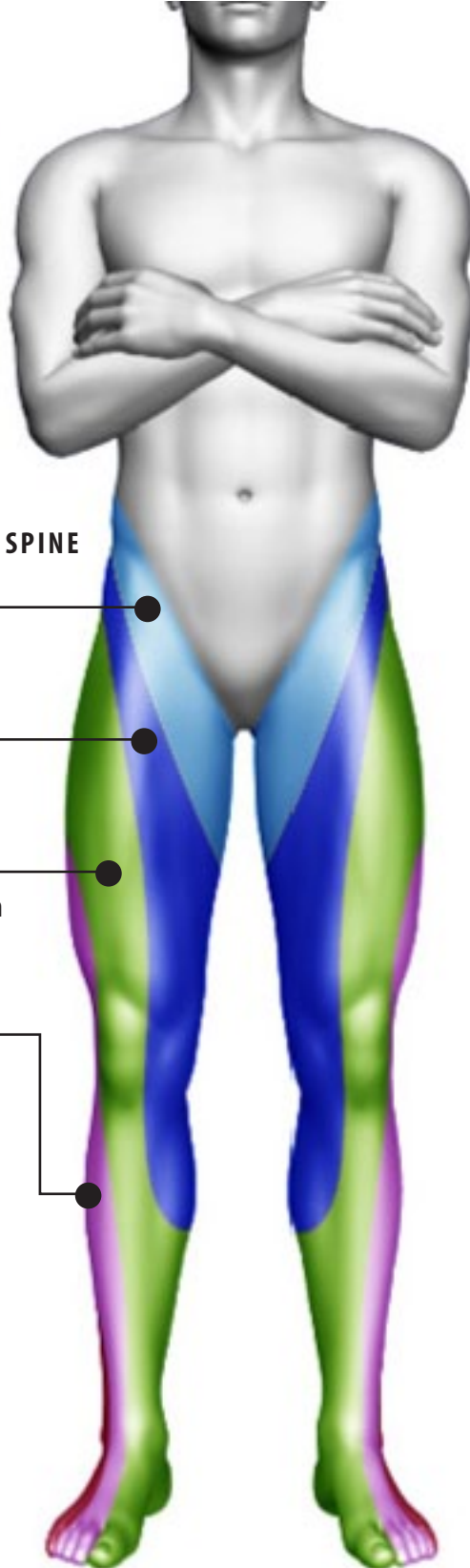
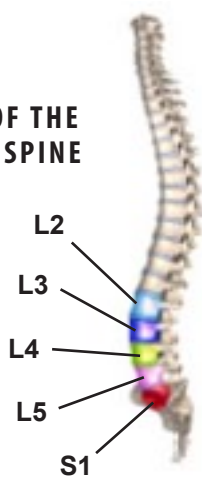


### SPINAL STENOSIS



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### LEVELS OF THE LUMBAR SPINE



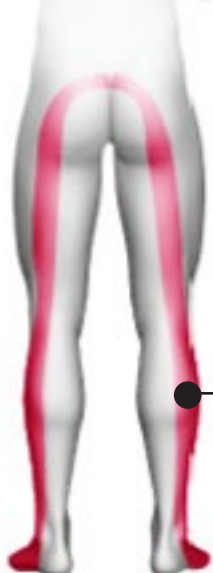
### DAMAGE TO THE LUMBAR SPINE

**L2 LEVEL** — Pain in thigh, weakness in hip

**L3 LEVEL** — Pain in thigh, weakness in knee and thigh

**L4 LEVEL** — Pain in lower back down to knee, foot. Weakness in foot.

**L5 LEVEL** — Pain on outside of leg to top of foot, big toe. Weakness in foot.



**S1 LEVEL** — Pain back of calf to outside of foot and little toe. Weakness in foot.

### Symptoms

Nerve root injury may occur at any of the five vertebrae in the lumbar spine (called the L1 through L5), or at the level of the sacrum (the upper portion of which is called the S1). Symptoms may include pain, weakness, numbness and tingling, and may vary depending on the level of the injury. For example, an injury at the L2 level can create thigh pain and hip weakness. An injury at the L3 level may result in thigh pain and knee and thigh weakness. Damage at the L4 level may cause pain from the lower back to the foot and also foot weakness. Damage at the L5 level can create pain from the outer leg to the top of the foot and also foot weakness. And finally, damage at the S1 level can create pain from the calf to the outer foot and also foot weakness.