

Lumbar Disc Herniation

Mesfin A. Lemma, MD

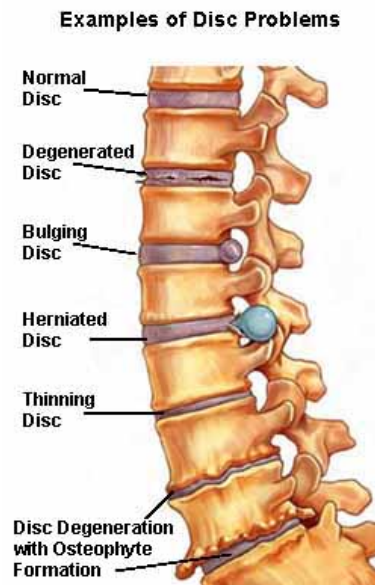
Minimally Invasive Spine Surgery, Scoliosis Surgery, Baltimore, MD

Anatomy

- The spine is made up of a series of connected bones called **vertebrae**. Between each pair of vertebrae there is a rubbery tissue called the **disc** that acts as a cushion, or shock absorber. The disc acts to protect the vertebral bones, allows motion, and maintains the height between the vertebrae to leave room for the nerves to exit on either side.

What is a disc herniation?

- Herniation occurs when the softer inner disc material ruptures, or herniates, through the outer disc wall, similar to the filling being squeezed out of a jelly donut, resulting in pressure on the spinal cord or exiting nerve roots.
- The terms “**disc herniation**”, “**ruptured disc**” or “**slipped disc**” all mean the same thing and may be used interchangeably.



What are the symptoms associated with a lumbar disc herniation?

- Lumbar disc herniation may result in low back pain and pain that radiates down the leg, also known as **lumbar radiculopathy** or **sciatica**.
- **Sciatic pain** from a ruptured disc may be dull, sharp, burning or accompanied by intermittent shocks of shooting pain most commonly felt in the lower back and traveling down one’s leg.
- Symptoms may also include weakness, numbness, or a “pins and needles” sensation.

What causes a lumbar disc herniation?

- Lumbar disc herniation most often results from general, age-related “**wear and tear**” of the spine. Genetics, **smoking**, and a number of occupational and recreational activities may lead to early disc degeneration as well.
- Occasionally, an injury may result in acute injury to the disc. Subsequently, pain and other symptoms may develop when the damaged disc presses against the nerve roots.

How is a lumbar disc herniation diagnosed?

- The first step in diagnosis is always to take a complete history and administer a thorough physical examination.
- Most commonly, a lumbar spine **MRI** is ordered which readily identifies the presence and extent of any lumbar disc problems.
- Additional diagnostic tests such as X-rays, CT scan or EMG/Nerve conduction tests may be considered as well.

What are the treatment options?

1. Nonsurgical Treatment

- **Most patients (80-90%) will improve without surgery.** Typical non-surgical modalities may include:
 1. Physical therapy
 2. Medrol dose pack (steroids pills) to reduce swelling and inflammation
 3. NSAIDs (Non-steroidal anti-inflammatory drugs)
 4. Analgesics (pain medications)
 5. Spinal steroid injections.



2. Surgical Treatment

- When symptoms progress or do not resolve with conservative management, surgery may be recommended. Typically, an outpatient lumbar micro-discectomy is performed.
- In experienced hands, surgery for a lumbar disc herniation is very reliable and has a high success rate.