

# Lumbar Disc Herniation

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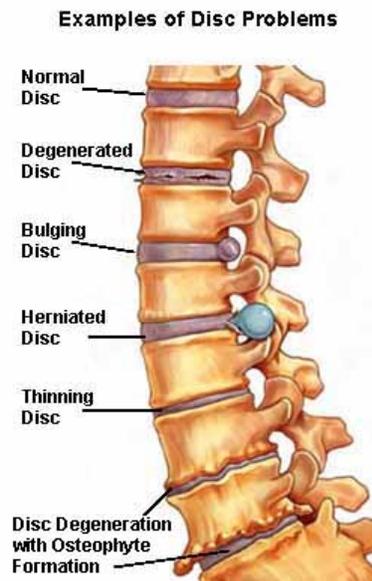
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## Anatomy

- 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.