Lumbar Radiculopathy (Nerve Root Compression)

Lumbar radiculopathy refers to disease involving the lumbar spinal nerve root. This can manifest as pain, numbness, or weakness of the buttock and leg. Sciatica is the term often used by lay people. Lumbar radiculopathy is typically caused by a compression of the spinal nerve root. This causes pain in the leg rather than in the lumbar spine, which is called "referred pain."

Lumbar Radiculopathy Causes

Lumbar radiculopathy may occur when the spinal nerve roots are irritated or compressed by one of many conditions, including lumbar disc herniation, spinal stenosis, osteophyte formation, spondylolisthesis, foraminal stenosis, or other degenerative disorders.

Lumbar Radiculopathy Diagnoses

Your spine doctor will consider your medical history and symptoms and give you a physical examination, during which the doctor will look for limitations of movement in the spine, problems with balance, as well as any loss of extremity reflexes, muscle weakness, sensory loss, or abnormal reflexes that may suggest spinal cord involvement.

Plain X-ray (x-ray.html) and an MRI (mri.html) are the typical imaging tests used to evaluate
Lumbar radiculopathy. However, a CT myelogram (ct-myelogram.html) may be used when an MRI is contraindicated due to a pacemaker or spinal cord stimulator, etc.

Lumbar Radiculopathy Symptoms

Lumbar radiculopathy symptoms may include pain, tingling, numbness, weakness, and reflex loss. Lumbar radiculopathy symptoms may present in the leg and foot.

Non-Surgical Treatment of Lumbar Radiculopathy

Interventional treatments for lumbar radiculopathy may include:

- Physical therapy and/or exercises that are designed to stabilize the spine and promote a more open space for spinal nerve roots are recommended.
- Medications, such as non-steroidal anti-inflammatory drugs (NSAIDs) to reduce swelling and pain and analgesics to relieve pain.
- Epidural steroid injections (epidural-steroid-injections.html) and nerve root injections (nerve-root-injections.html) to help reduce swelling and treat acute pain that radiates to the hips or down the leg.

Surgical Treatment of Lumbar Radiculopathy

Surgical treatment can be varied depending on what causes the lumbar radiculopathy. Typically, these treatments involve some way of either decompressing the nerve or stabilizing the spine.

Some of the surgical procedures used to treat lumbar radiculopathy at Emory are:

- Anterior Lumbar Interbody Fusion (ALIF) (anterior-lumbar-interbody-fusion.html)
- Extreme Lateral Interbody Fusion (XLIF) (xlif-dlif.html)
- Lumbar Laminectomy (lumbar-laminectomy.html)
• Lumbar Microdiscectomy (lumbar-microdiscectomy.html)
• Laminotomy
• Lumbar Spinal Fusion (lumbar-spinal-fusion.html)
• Transforaminal Lumbar Interbody Fusion (TLIF)
• Posterior Lumbar Interbody Fusion (PLIF)
• Cage implantation
• Pedicle Screw
• Deformity correction