

Lumbar Radiculopathy

Condition: Lumbar radiculopathy refers to any disorder that affects the nerve roots in the spine in the lower (lumbar) back. Resulting nerve pain that radiates down the leg or legs is also called sciatica.

Background: Lumbar radiculopathy is typically caused by compression of the nerves due to inflammation, “wear and tear”, or trauma. Intervertebral disc herniation, cysts, and narrowing of the spinal canal cause the majority of cases. Other rarer causes include tumor or infection. A Physical Medicine and Rehabilitation (PM&R) physician, also known as a physiatrist, has special training to be able to diagnose and treat lumbar radiculopathy.

Risk Factors: Lumbar radiculopathy is slightly more common in men, and peak age at time of disc surgery is 40 years. Other risk factors include driving occupations, frequent lifting especially with twisting motions, heavy industry work, back trauma, taller height, smoking, overweight, sedentary lifestyle, multiple pregnancies, history of back pain, and chronic cough. Environmental factors account for most cases of sciatica, although family history of herniated discs is also a risk factor.

History and Symptoms: Pain is typically described as throbbing, aching, sharp, dull, burning, pressure, numbness, tingling, or shooting. Before seeing a PM&R physician, it is helpful to write down anything that makes the pain better or worse. Back pain is usually present, but leg symptoms (including the buttocks) are the primary problem. Signs that warrant an emergency room visit are new onset of weakness in the affected limb and/or new onset of bowel and/or bladder incontinence.

Physical Exam: A physical exam will be performed to assess the intensity, exacerbating factors, and alleviating factors. Also checked are strength, reflexes, sensation, walking ability, hip range of motion, and presence of other disease symptoms.

Diagnostic Process: X-rays can be used to screen for problems such as broken bone or fracture, bony alignment issues, and abnormal curvature of the spine. Magnetic resonance imaging (MRI) and computed topography (CT) scans are used in cases where rehabilitation does not improve symptoms and surgery is being considered. Electromyography (EMG) and Nerve Conduction Studies (NCS) can be used to record the electrical activity of the muscles to help confirm the diagnosis, identify the nerves involved, and determine whether new damage has occurred. Injections of medications can sometimes be used to both help identify the nerves involved and rule out other causes of pain.

Rehab Management: The majority of patients (70-80%) experience improvement in pain and disability in 4-6 weeks with activity modification, and only 1-10% of patients will require surgery. Rehabilitation management emphasizes return to activity because worse outcomes are associated with longer than necessary delays in returning to normal activities. Activity modification is encouraged, so that one is able to remain as active as possible without causing pain. Heat, ice, electrical stimulation, and medications, such as non-steroidal anti-inflammatory drugs (NSAIDs) and acetaminophen are often used. Exercise training to develop stabilization of the trunk as well as upper and lower body strengthening along with improving flexibility is useful. Epidural injections of steroids or surgery are used to reduce inflammation and ease pain in many patients with acute or subacute symptoms. Chronic pain can be treated with acupuncture, massage therapy, chiropractic manipulations, spinal cord stimulation, or decompression of the spine. A PM&R physician is able to work with each patient to tailor a plan of care that fits the patient's needs and coordinate

the care between the patient, primary care physician, and therapist. Furthermore, physiatrists may prescribe appropriate medications to further manage neuropathic pain. Many physiatrists perform injections like epidural steroids to reduce pain.

Other Resources for Patients and Families: Patients and families should be educated about rehabilitation, the benefits of exercise, expectations of surgery, and the recurrent nature of the condition.

Frequently Asked Questions

What is PM&R?

Physical medicine and rehabilitation (PM&R), also known as physiatry, is a primary medical specialty that aims to enhance and restore functional ability and improve quality of life to those with injuries, physical impairments or disabilities affecting the brain, spinal cord, nerves, bones, joints, ligaments, muscles and tendons. PM&R physicians, known as physiatrists, evaluate and treat the whole body, maximize patients' independence in their daily life and are experts in designing comprehensive, patient-centered treatment plans to empower patients to achieve their goals. By taking the whole body into account, they can accurately pin-point problems, decrease pain, assist in recovery from devastating injuries and maximize overall outcomes and performance with non-surgical and peri-surgical options. To learn more, visit www.aapmr.org/aboutpmr.

What makes PM&R physicians unique?

PM&R physicians' training focuses not just on treating medical conditions, but on enhancing the patient's performance and quality of life in the context of those medical conditions. They focus not only on one part of the body, but instead on the development of a comprehensive program for putting the pieces of a person's life back together – medically, socially, emotionally and vocationally – after injury or disease. PM&R physicians make and manage medical diagnoses, design a treatment plan and prescribe the therapies that physical therapists or other allied therapists perform or that are carried out by the patients themselves. By providing an appropriate treatment plan, PM&R physicians help patients stay as active as possible at any age. Their broad medical expertise allows them to treat disabling conditions throughout a person's lifetime.

Why see a PM&R physician?

A PM&R physician will thoroughly assess your condition, needs, and expectations and rule out any serious medical illnesses to develop a treatment plan. By understanding your condition and goals, you and your PM&R physician can develop a treatment plan suited to your unique needs.

How do I find a PM&R physician near me?

Visit www.aapmr.org/findapmrphysician or contact your primary care physician for a referral.