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Physician Link

Your Link to Specialty Healthcare Providers

SCIATICA

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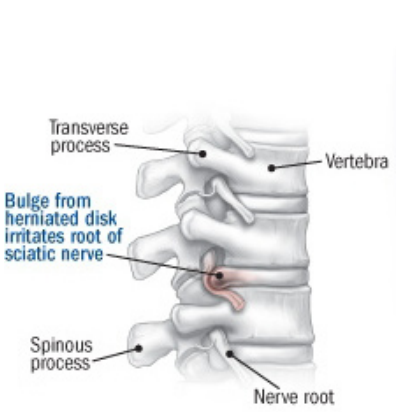
Sciatica and Symptoms

Sciatica is a general term used to describe a radiating pain down the buttock, thigh, and/or leg. Similar terms used to describe this symptom include *lumbar radiculopathy* and *radiculitis*. Other sensations associated with sciatica include numbness, burning, "pins and needles", and weakness in the involved limb. It is most frequently seen in the fourth through sixth decade of life but can be found in any age group.



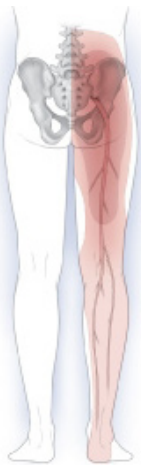
Causes

There are a variety of factors that may cause sciatica, all of which have the common characteristic of irritating one of the nerve roots that becomes the sciatic nerve, which travels down the buttock and posterior thigh.

- The most common is bulging or herniation of an intervertebral disc.
- Other causes include arthritic conditions of the spine causing bony encroachment or traumatic irritation of a nerve root. As one ages, the discs are subjected to wear and tear and the disk's outer layer, or annulus, may weaken causing it to bulge, or it may rupture allowing the inner gel-like nucleus to extrude.

Both of these situations can cause excessive pressure on the nerve roots passing through the lumbar spine. This pressure can irritate the nerve, causing the symptoms known as sciatica. Furthermore, chemical factors released by the "leaking" disc have also been shown to irritate the nerve roots.

Diagnosis and Treatment



Those who experience sciatica should seek medical attention. A physical exam can help pinpoint the suspected area of nerve irritation. An MRI (magnetic resonance imaging) may be ordered by the physician to confirm the source of nerve irritation. The good news is that sciatica often improves with time. In fact, more than 4 out of 5 people improve with time without surgery.

- Initial treatment involves rest, non-steroidal anti-inflammatories, muscle relaxants, oral steroids, and other pain medications.
- Epidural steroid injections (ESI's), cortisone injections around the irritated nerve or nerves, can be used in patients who do not respond to these first lines of treatment.

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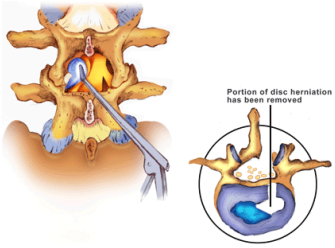
- Surgery is usually reserved for those who do not gain satisfactory relief within a reasonable period of time, usually 6 weeks to 3 months, or in those with significant worsening symptoms such as numbness or weakness.



A rare, yet emergent situation, known as cauda equina syndrome arises if a disc herniation compresses the nerves controlling bladder and bowel function and sensation in the genital area. This requires urgent medical and surgical attention.

Surgery

Surgery for sciatica is aimed at relieving the source of compression on the nerve root.

- In most cases this involves removing the herniated portion of the disk pressing on the nerve root. This is known as a laminotomy and microdiscectomy.
- In some cases, decompressing or widening the "foramen" or hole through which the nerve root(s) passes out of the spine is necessary to relieve the pressure on it. This is known as a foraminotomy.

After surgery the physician may limit the patient's lifting, bending and twisting for several weeks in order to reduce the chance of reherniation of the disc material, which occurs in 3-5% of patients undergoing a microdiscectomy.

Sciatica can also be associated with other more complex spinal conditions such as *degenerative* or *traumatic* instability and in some cases a decompression of the nerves alone is not sufficient to treat the spinal condition causing the sciatica. In these situations a decompression of the nerve(s) along with a fusion to stabilize the spine is necessary. Fusions frequently involve the implantation of metallic instrumentation that holds the spine in a stable position while the bony "fusion" takes place. Use of a microscope and specialized instrumentation often allows decompression and fusion surgery to be performed by minimally invasive or less invasive means.

Patients experiencing sciatica should seek medical attention, but in many cases can expect to improve in time with non-operative treatment modalities. Those who fail to improve with non-operative treatment or those with progressive symptoms are candidates for surgical intervention.

For more information about Mission Hospital's Orthopedic programs contact:
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ABOUT THE AUTHOR

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Dr. Burdi received his B.A. from Northwestern University and is a graduate of Stanford University School of Medicine. He completed his residency in orthopedic surgery at the University of California San Diego and went on to complete a Spine Surgery Fellowship with Dr. Courtney Brown at Panorama Orthopedics and Spine Center in Golden, Colorado. Dr. Burdi is board certified by the American Board of Orthopaedic Surgery and is a member of the North American Spine Society.

He is trained in both operative and non-operative management of spinal disorders and, in addition, has training in minimally invasive techniques and disc replacement surgery. Dr. Burdi believes in a multidisciplinary approach to spinal disorders in order to provide his patients with the maximum benefit from their treatment.

Dr. Michael Burdi is a member of the Community Orthopedic Medical Group.

For feedback or questions related to the content of this article, contact Susan Fox, Mission Hospital's Physician Relations Specialist, at (949) 364-4269 or susan.fox@stjoe.org.