

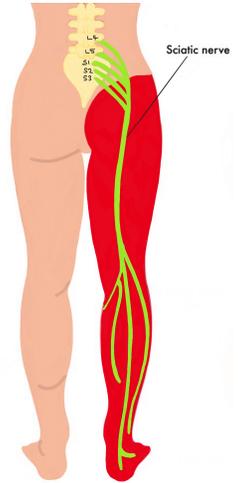
UNDERSTANDING SCIATICA

By Dr. John A. Papa, DC, FCCP(C) - New Hamburg Wellness Centre

The sciatic nerve is the longest nerve in the human body. It is made up of five separate nerve roots originating from the low back region on each side, and runs from your pelvis through your buttock and hip area and into each leg. It controls many of the muscles in your legs and provides feeling to your thighs, lower legs and feet.

"**Sciatica**" is a common term used to describe any type of pain/symptom that radiates into the leg. "**True sciatica**" occurs when there is a mechanical and/or inflammatory irritation directly affecting any component of the sciatic nerve. This differs from "**referred**" pain/symptoms which can arise from a bone, joint or muscle that can send pain/symptoms into the leg.

True sciatic symptoms may be felt almost anywhere along the nerve pathway. These symptoms can radiate from the low back region, into the hip or buttock, and down the leg, into the calf, and even the toes. The symptoms can vary widely and may include: a cramping or achy feeling, tightness, burning or a sharp electric shock sensation, numbness, tingling, and leg muscle weakness. The symptoms may start gradually and intensify over time. Activities such as bending forward or to the side, walking, prolonged sitting or standing, and even coughing or sneezing may aggravate sciatica.



Below is a brief summary of three common causes of true sciatica:

1. **Spinal disc herniation/bulge** – Spinal discs separate and cushion lumbar vertebra. Repetitive and cumulative loads or a single heavy load has the potential to cause a disc bulge or herniation, thereby causing a mechanical and/or inflammatory irritation of the nerve root(s). This most commonly occurs in adults aged 20-50.
2. **Degeneration and Osteoarthritis** – The normal aging process causes lumbar disc degeneration, osteoarthritis of lumbar joints, and occasionally vertebral slippage. The consequence of these processes is that mechanical irritation from bony spurs and vertebrae, along with inflammation can cause symptoms of sciatica. This most commonly occurs in adults over 50.
3. **Lumbar spinal stenosis** – This condition causes sciatica due to narrowing of the spinal canal and/or nerve pathways. This puts pressure on the spinal cord or nerve roots and causes neurovascular irritation. This most commonly occurs in adults over 60. It is usually secondary to degeneration and osteoarthritis.

Other causes of "**true sciatica**" include: direct irritation of the sciatic nerve by the piriformis muscle; direct trauma or injury to the sciatic nerve or nerve roots; and postural and mechanical changes associated with pregnancy. Some common causes of sciatic-like symptoms or "**referred**" pain include: muscular trigger points and ligament sprains from the low back, hip, gluteal and pelvic regions; sacroiliac joint dysfunction; and arthritic low back, hip and knee joints.

Sciatica is a set of symptoms of a problem, rather than a diagnosis for what is irritating the nerve and causing the pain. This is an important point to consider because the treatment for sciatica will often be different depending on the underlying cause of the symptoms. Therefore, it is important to obtain an accurate diagnosis from a qualified health professional.

When sciatica strikes, there are conservative treatment options available. These may include: mechanical traction, spinal manipulation and mobilization, soft tissue techniques, laser therapy, acupuncture, ice/heat application, electrotherapy, and rehabilitative exercise. A qualified health professional can determine the cause of your sciatica and prescribe appropriate therapy, exercises, and rehabilitation strategies specifically for your circumstance. For more information, visit www.nhwc.ca.



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