

WHAT IS SCIATICA?

SCIATICA IS NOT A SINGLE DIAGNOSIS BUT RATHER A GENERAL MEDICAL TERM USED TO DESCRIBE A SET OF SYMPTOMS THAT ARISE WHEN ONE OR MORE OF THE NERVES THAT EXIT THE LOW BACK ARE IRRITATED OR COMPRESSED.



It is characterized by leg and buttock pain, but may also include numbness, tingling, or weakness of the affected leg. The problem is usually on only one side, but in rare cases both legs can be affected. While many cases involve low back pain, others may not.

SYMPTOMS OF SCIATICA

WHO GETS SCIATICA

While low back pain is common among Australians, with an estimated 80% of the population set to experience the condition at some point in their lives, only about 5% of these cases involve symptoms that could properly be described as sciatica. Generally people aged 30-50 are more likely to experience sciatic pain.

Some possible risk factors include age, obesity, occupations involving heavy manual work or prolonged driving, prolonged sitting and diabetes

WHAT DOES SCIATIC PAIN FEEL LIKE

It is very painful. The pain, numbness, tingling and weakness depends upon which nerves are affected, and where they are being compressed or irritated. Symptoms vary widely because of the many different conditions and separate diagnoses that are often lumped together and described as sciatica. The most common condition is an intense back pain that then runs down the outside or back of the leg, from the buttock region to the foot and even toes.

Examples are

- Pain with numbness or tingling down the leg
- It may or may not include low back pain and low back stiffness
- It can involve weakness of the affected leg
- Sometimes burning down the leg.
- Weakness, numbness, or difficulty moving the leg or foot.
- Pain often shifts locations and intensities with a change of position or activity.
- A shooting pain that makes it difficult to stand up and weight bear
- The symptoms can help indicate the level of nerve involved.

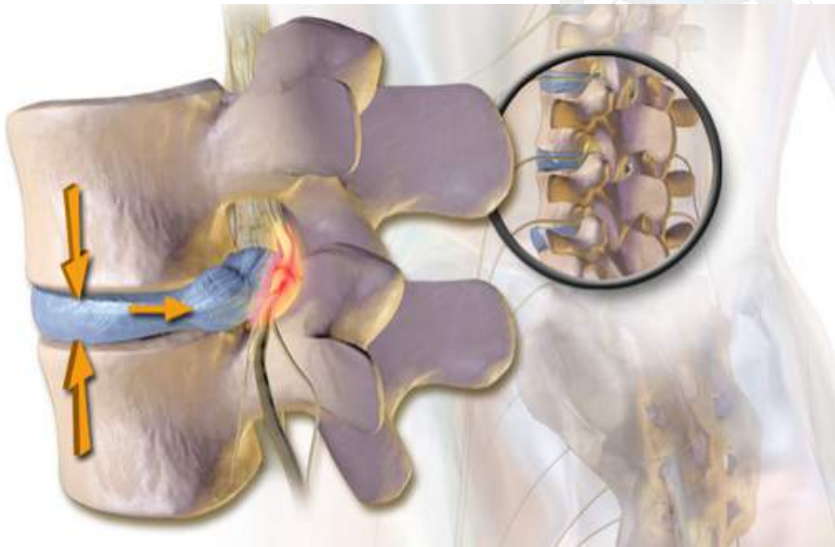
WHAT CAUSES SCIATICA

The sciatic nerve is a large bundle of nerves that pass through the buttock region and then down the leg. It originates from the Lumbar nerve roots in the spine and then later divides into different nerves as it descends to the lower limb. Compression at the spinal or buttock level produces sciatica. Individual nerves can also be compressed but these fall under peripheral nerve compression rather than true sciatica.

The causes of Sciatica are often a multifactorial combination of individual anatomy, age related degeneration and aggravating activity. People complain about a new or old mattress, a long car drive, a new chair, a strange couch and any one of these elements may directly or indirectly contribute to the compression or irritation that results in the nerve bundle symptoms.

HOW A PINCHED SCIATIC NERVE HAPPENS:

LUMBAR DISC BULGE



One of the most common causes of sciatica is a bulging or herniated disc. Most disc bulges and herniations occur in the lumbar spine.

The spinal nerves exit the spinal cord between the lumbar vertebrae and then join together to form the sciatic nerve which runs down your leg.

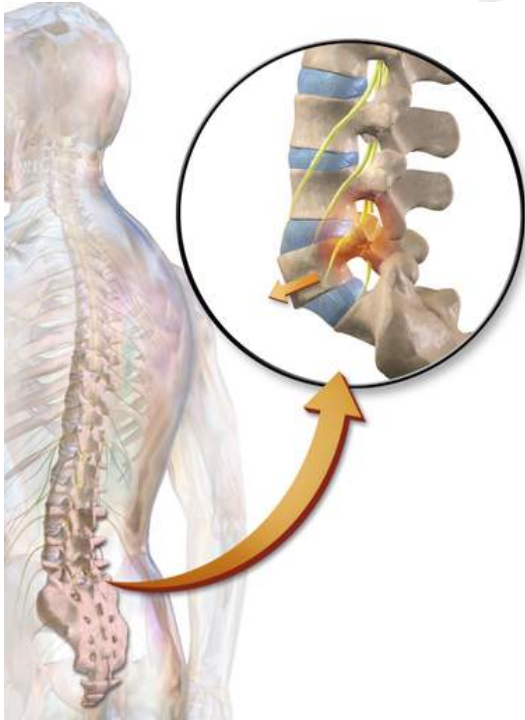
The Discs have a hard casing and liquid-like center. A disc bulge describes an outward swelling of the fluid material of the disc through a weakened part in the outer shell of the disc. The bulging disc then applies pressure on the nearby nerves which creates the variety of symptoms depending on the level. Herniation is the escape of the softer centre through the outer layer of the disc between the vertebral spaces.

This process usually happens over an extended period and the longer that a condition progresses, the worse the symptoms may become. The medical term for sciatica is lumbar radiculopathy .

FORAMINAL STENOSIS

As the joints, discs and ligaments of the lumbar spine degenerate they can hypertrophy (grow larger). This causes a decrease in size of the hole where the lumbar nerve root exits the spine, increasing the likelihood it will become compressed. The lower back is the section of your spine most likely to be affected by foraminal stenosis. This can be felt as pain, tingling, numbness, and weakness in the buttock, leg, and sometimes the foot

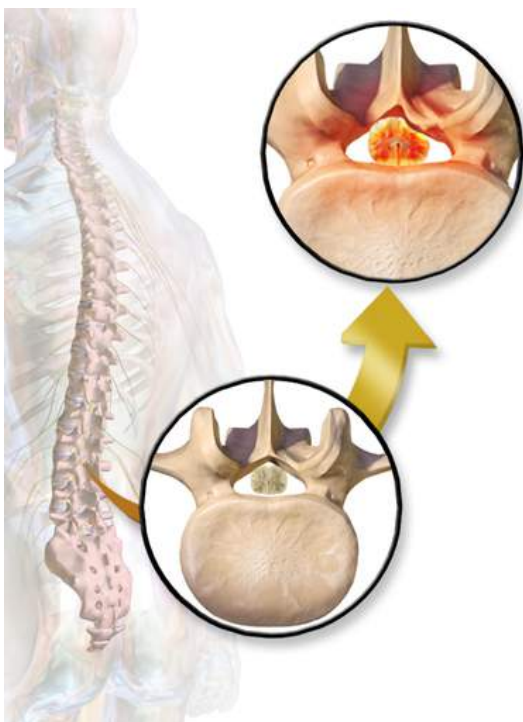
SPONDYLOLISTHESIS



This is a slippage of one vertebra forward in relation to another which can create pressure and traction on the nerve that exits between the two vertebrae.

Most often found in adults, spondylolisthesis is broken down into six main types based on the extent of movement and the causes.

CENTRAL STENOSIS

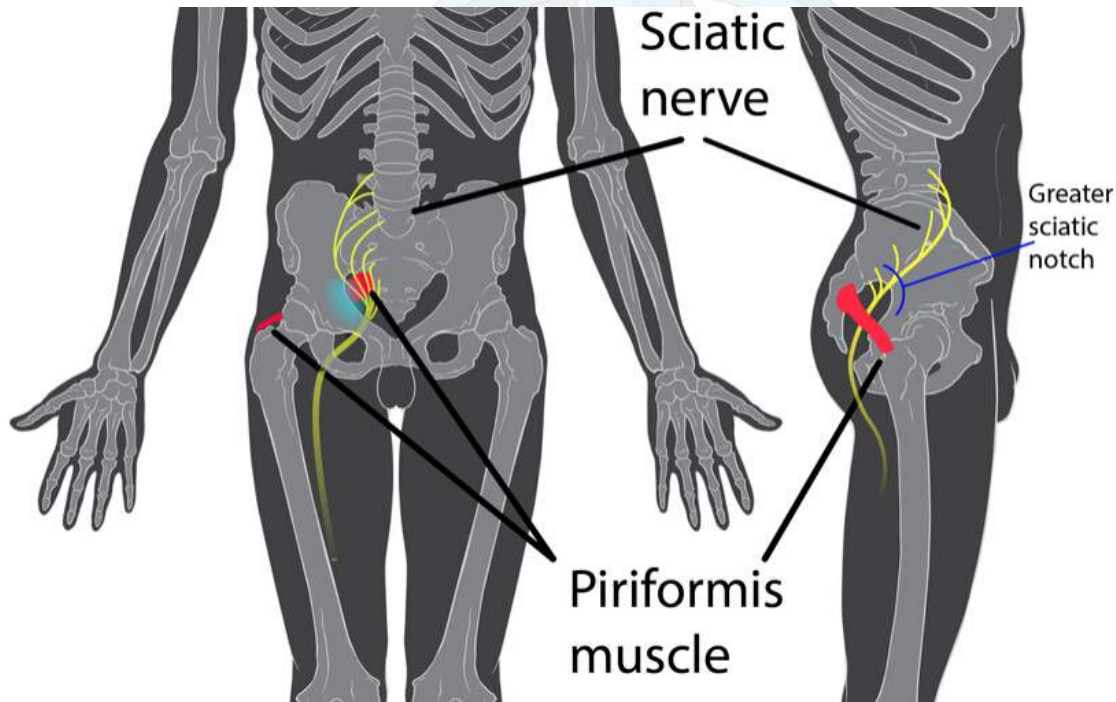


Central stenosis refers to the narrowing of the central spinal canal, which places pressure on the sensitive neural structures that run its length.

Central stenosis occurs when the central spinal canal is constricted with enlarged ligament and bony overgrowth, causing compression of the spinal cord and cauda equina. Stenosis can occur along any area of the spine (cervical, thoracic, lumbar), but is most common in the lumbar area.

This usually occurs as a result of a congenitally small spinal canal, coupled with degenerative changes similar to those described above.

PIRIFORMIS SYNDROME



The piriformis muscle is a pear-shaped muscle in the buttocks that extends from the base of the spine to the top of the hip.

This condition is described as pressure placed on the sciatic nerve as it passes under this piriformis muscle in the buttock region. This syndrome usually starts with single-leg pain, tingling, or numbness in the back and or buttocks that can extend down the back of the leg (thigh) following the sciatic nerve.

The pain is often aggravated while sitting on a car seat, running, climbing stairs, applying firm pressure directly over the piriformis muscle, or just sitting for long periods of time. However it is a relatively uncommon cause of true sciatica.

HOW IS SCIATICA DIAGNOSED?

It is important to see an experienced health professional to accurately diagnose sciatica. Many people may believe they have sciatica merely because they have referral of pain into the leg. Not all referred pain is sciatica.

Each of the causes above should be understood and are treated differently for best results. Diagnosis is made with a thorough history and clinical exam. You can help by thinking about what positions or activities always make your leg symptoms worse, and which ones seem to consistently provide relief.

Provided the exam reveals a pattern of signs and symptoms consistent with sciatica, and there are no indicators of more serious pathology, there is usually no need for further tests, such as an MRI or X-ray.

However unresolved pain, bladder symptoms, progressive numbness and / or weakness are indications further investigations will be warranted.

PHYSIOTHERAPY TREATMENT

Physiotherapy is an important part of conservative care for sciatica and should be tailored to the specific cause of the sciatic symptoms and will include some form of physical exercises to be done regularly.

These may be aimed at improving spinal mobility, strength, or endurance. Treatment may also include manual therapy for joints, soft tissue and neural components, supervised exercises and pain-relieving techniques like dry needling.

Advice and education on how to remain as active as possible without worsening your condition and help with aggravating and easing activities.

Chronic pain management therapies may also be required. A doctor may prescribe medications to help ease symptoms and allow you to function better while you work on rehabilitating your sciatica. These medications may include anti-inflammatories, pain relievers, or drugs specifically tailored to relieve nerve pain.



PHYSIOTHERAPY AND EXERCISE

For an exercise program to be maximally effective, it must be designed to address the specific type of sciatica.

Part of a physiotherapy assessment will involve the positions that help or aggravate the symptoms, this is often referred to as directional preference and will help determine treatment options. Most treatments are aimed at centralising the symptoms- bringing them out of the leg and towards the back.

That being said, here are a few things to try that many patients report helping relieve their pain.

1. Get moving! Even though you have pain, do not spend the day in bed. This tends to make things worse. Start by simply walking for a few minutes at a time and try to increase your distance slowly over time.

2. Avoid sitting for long periods of time. And if you must sit use excellent posture in a good supportive chair. Many people with symptoms of sciatica find that their leg pain is much worse after sitting continuously for longer than 20 min.

3. Child's Pose. For many patients this position will help to temporarily relieve their leg symptoms while not aggravating their back condition.

4. Alternatively lying on your stomach or over a small pillow may relieve symptoms



PROGNOSIS

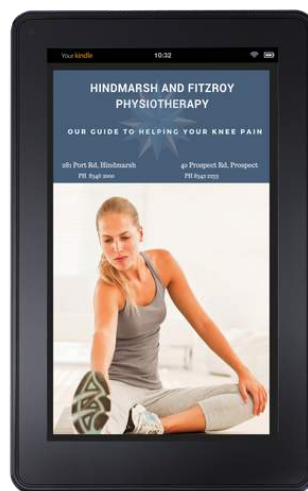
Fortunately most cases of sciatica resolve with conservative treatment within 6-12 weeks. However, many people who have had an episode of sciatica will also have a recurrence at some point in the future. You can talk with your doctor and your physiotherapist about programs and advice to minimize future recurrences.

If you are suffering from sciatica and are in the Adelaide area, you can book an assessment with one of our experienced physiotherapists in Hindmarsh and Prospect by calling our Physiotherapy clinics on 83462000 and 83422233.

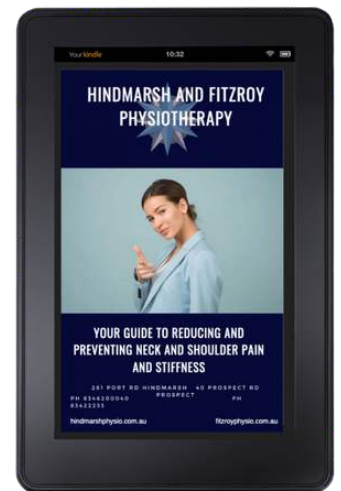
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