Sciatica
Causes and Treatment

Sciatica is traditionally pain that runs down the back of your leg, originating from the sciatic nerve. It can also be called sciatic neuritis, lumbar radiculopathy or sciatic neuralgia. It often occurs only on one side and may or may not radiate below the knee. Sciatica can present with back pain, but on occasion can simply be pain or pins and needles in the leg. Symptoms can be experienced into the buttock and back of the thigh, into the knee and calf or even as far down as the foot.

Symptoms include:

- low back or buttock pain;
- pain down the back of the leg;
- numbness and tingling down the back of the leg;
- pins and needles; and
- in rare cases, a burning sensation is reported or a spider-like tickle in the leg.

THE ANATOMY OF SCIATICA

The sciatic nerve is the largest and longest nerve in the body. At its largest point, it is the width of a thumb. The nerve originates in the lower back as the nerve roots leave the spinal cord through small gaps between the bones (vertebrae) of your lower (lumbar) spine. The sciatic nerve is made up of five nerve roots, starting at the bottom two lower vertebrae called L4 and L5. The nerve extends the entire length of the leg into the foot. As the nerve travels down the leg it branches out to different parts providing sensory (feeling) and motor (movement) functions along the way all the way down to the foot.

COMMON CAUSES OF SCIATICA

- **Disc prolapse.** One of the most common causes of sciatica is a 'slipped disc'. Although not the most accurate name, the disc (a shock-absorbing pad between each bony vertebra) bulges or prolapses backwards, it can touch the sciatic nerve sending pain down the back of the leg.
- **Spondylolisthesis.** This is a slip or shift (usually forwards) of one vertebra on another. This in turn can pinch the sciatic nerve or narrow the spinal canal where the nerve root exits.
- **Piriformis syndrome.** As the sciatic nerve travels through the buttocks, it can become squashed by the piriformis muscle. This happens when the muscle itself is tight and traps or compresses the nerve.
- **Space occupying lesion.** A far less common cause is anything that occupies space around the nerve, such as a tumour or cyst, can result in sciatica.

HOW TO TREAT SCIATICA

There are ways to treat sciatica at home following guidance from your physical therapist. However, because the symptoms may be originating from a medical condition, it is advised always to have it checked out by a professional. In some cases, sciatica requires no treatment and the condition may clear up by itself.

- Take anti-inflammatory or analgesic medicine, guided by your doctor, which may help in the early stages.
- Physical therapy will help along all stages of recovery. Initially, pain relieving hands-on techniques can be performed to ease muscle spasms and stiff joints. A combination of mobilising and massage can reduce the 'trapping' of the nerve by the piriformis muscle. Physical therapists will also teach you stretches and mobility exercises to help you move with ease and get back to being active.
- You can apply ice or heat.
- If your pain is severe and acute, reducing your activity for a few days may help, but this should not be prolonged. Physical activity, whether it's gentle yoga, Pilates, prescribed exercise from a professional or a gentle walk, swim or cycle, will be beneficial in the long term.
- Be cautious with lifting heavy items during the acute painful phase.
- Avoid sitting for prolonged periods of time, get up and move around every 20 minutes so that you don't stiffen up.
- Once you start to feel better, doing mobility exercises and general strengthening exercises may help your recovery.
- If you are not responding to a combination of the above advice then it may be necessary to perform some imaging like an MRI.

Remember: DO move and DO go to work or DO carry on with your normal daily routine as much as possible. Although some activities, like bending forwards, may be limited due to pain initially, the sooner you are active and return to your 'normal' life the better the long-term outcome.



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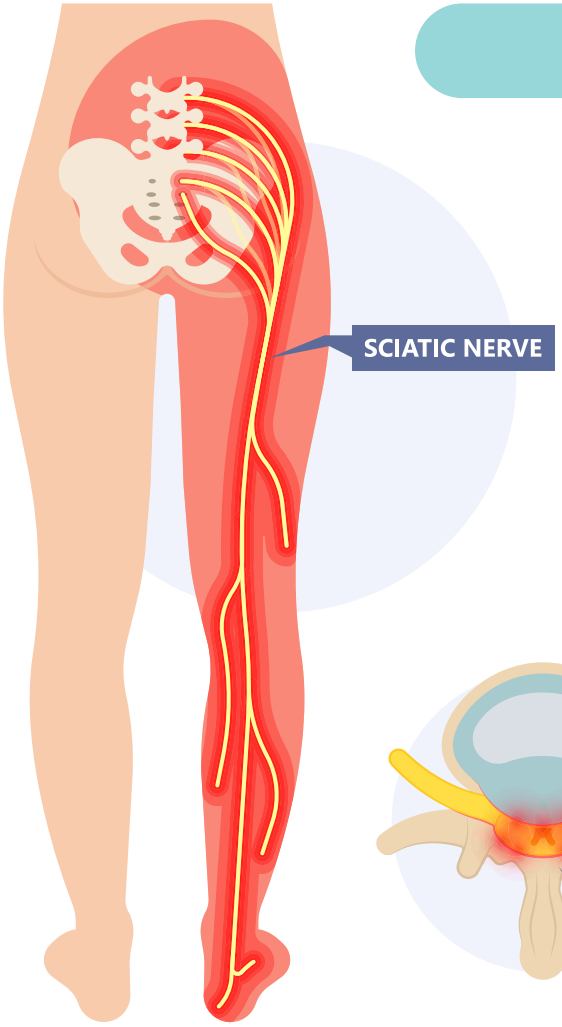
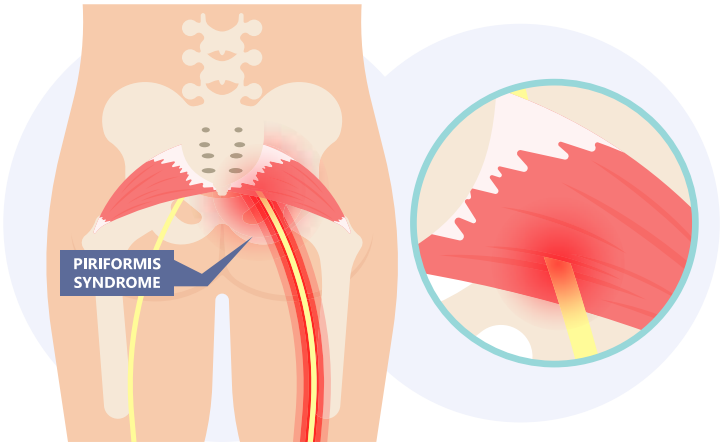
CAUSE OF SCIATICA





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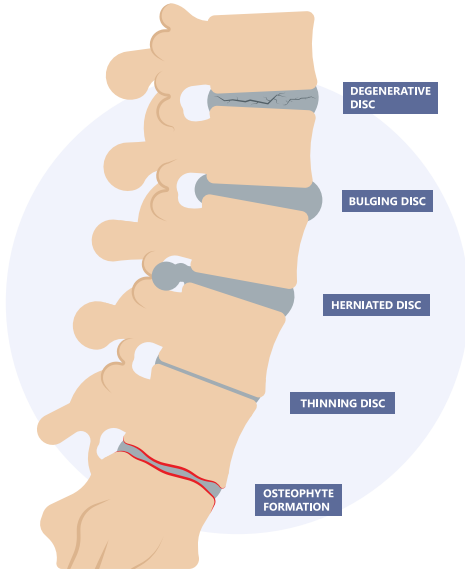

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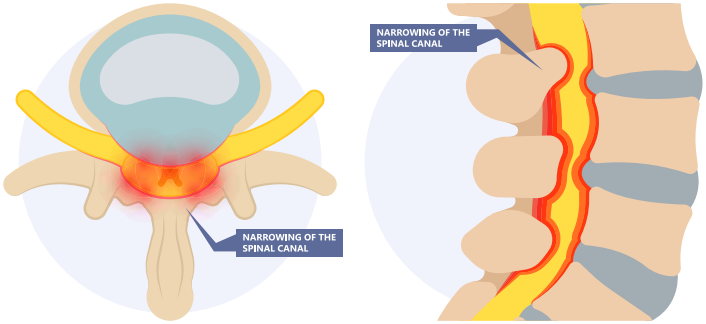
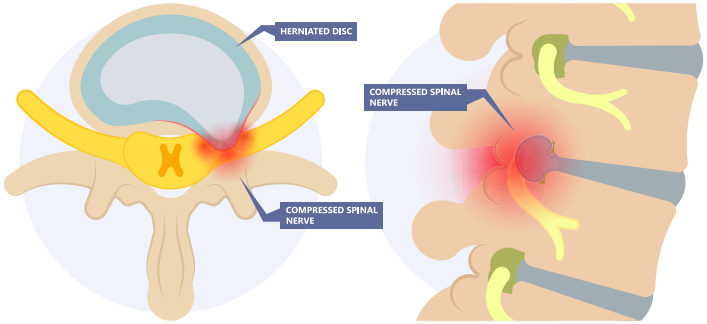


SPINAL STENOSIS



HERNIATED DISC