

## FACT SHEET — SPINAL — NERVE ROOT

# Sciatica

*A comprehensive guide to nerve root pain — causes, dermatomal patterns, recovery, and when to act*

**■ Seek urgent medical attention if you have:**

- Sudden difficulty controlling bladder or bowel alongside sciatica
- Numbness in the saddle area (between the legs)
- Rapidly worsening weakness in both legs
- These may indicate cauda equina syndrome — a same-day emergency

## What sciatica actually is

"Sciatica" is a term used to describe pain that radiates from the lower back or buttock down the leg, following the path of the sciatic nerve or one of its contributing nerve roots. It is not a diagnosis in itself — it is a symptom of an underlying cause. Understanding that cause is what determines the right treatment.

The sciatic nerve is the largest nerve in the body. It forms from the L4, L5, S1, S2, and S3 nerve roots and travels from the lower spine through the buttock and down the back of the leg to the foot. When any of its contributing roots are compressed or irritated, the characteristic pain, tingling, numbness, or weakness of sciatica follows the distribution of that specific root.

## Common causes of sciatica

<b>Disc herniation</b>	The most common cause. A herniated disc presses on the nerve root. Typically affects one level and one leg. Often resolves with conservative management.
<b>Spinal stenosis</b>	Narrowing of the spinal canal or the exit foramina. More common in older adults. Often causes bilateral symptoms and neurogenic claudication.
<b>Degenerative disc disease / spondylosis</b>	Age-related changes that narrow the foraminal space through which nerve roots exit.
<b>Spondylolisthesis</b>	Vertebral slippage that can narrow the foramen and compress the nerve root.
<b>Piriformis syndrome</b>	The sciatic nerve can be compressed by a tight piriformis muscle in the buttock — not a spinal cause. Sometimes called a "sciatica imposter".
<b>Sacroiliac joint dysfunction</b>	Can refer pain into the posterior thigh mimicking L5/S1 sciatica.
<b>Spinal tumour or metastasis</b>	Rare but important to consider, particularly with atypical features.

## Dermatomal patterns — where your pain travels tells us which root is involved

Level	Pattern and key findings
<b>L3 nerve root</b>	Front and inner thigh. Weakness of knee extension. Associated with L3/4 disc level.
<b>L4 nerve root</b>	Inner calf, inner ankle, big toe. Weakness of ankle dorsiflexion. Reduced knee jerk. Associated with L4/5 disc level.
<b>L5 nerve root</b>	Outer calf, top of foot, big toe. Weakness lifting the foot (foot drop in severe cases). No reliable reflex change. Most common level.
<b>S1 nerve root</b>	Back of thigh, outer calf, outer foot, small toes. Weakness standing on tip-toe. Reduced ankle jerk. Second most common level.
<b>S2/S3/S4</b>	Inner thigh, perineum, saddle area. Bladder and bowel involvement. Cauda equina territory — seek urgent assessment.

## Sciatica imposters

Not all leg pain is sciatica. Several conditions produce pain that travels into the leg without a spinal nerve root cause. These are sometimes called sciatica imposters and are important to identify because treatment is entirely different:

- **Piriformis syndrome** — buttock and posterior thigh pain from piriformis compression of the sciatic nerve
- **Greater trochanteric pain syndrome** — lateral hip and thigh pain from gluteal tendinopathy
- **Meralgia paraesthetica** — anterior and lateral thigh burning and numbness from lateral femoral cutaneous nerve compression
- **Sacroiliac joint referral** — posterior thigh pain from SIJ dysfunction
- **Proximal hamstring tendinopathy** — deep buttock and posterior thigh pain
- **Peripheral arterial disease** — calf pain on walking in older patients

## Recovery and treatment

The good news about true nerve root sciatica is that the natural history is positive for most people. Studies show 90% of patients improve significantly within 12 weeks. The body reabsorbs disc material over time and the nerve recovers.

<b>Stay active</b>	Gentle walking and movement within tolerance. Bed rest prolongs recovery.
<b>Pain management</b>	Anti-inflammatories, paracetamol, and nerve pain medications (gabapentin, pregabalin, amitriptyline) for neuropathic pain.
<b>Manual therapy</b>	Specific mobilisation, nerve flossing/mobilisation techniques, and rehabilitation exercises. Choose a practitioner experienced in nerve root presentations.
<b>Spinal injection</b>	Nerve root or epidural steroid injection for severe or persistent symptoms — reduces inflammation and allows rehabilitation.
<b>Surgery (microdiscectomy)</b>	For significant or worsening neurological deficit, or failure of conservative management over 6–12 weeks. Generally good outcomes.

## Related fact sheets

<b>Disc herniation</b>	The most common cause of true sciatica.
<b>Cauda equina syndrome</b>	The emergency that can arise from severe disc herniation causing sciatica.
<b>Piriformis syndrome</b>	The most common sciatica imposter.
<b>Meralgia paraesthetica</b>	Anterior thigh pain from lateral femoral cutaneous nerve compression.
<b>Spinal stenosis</b>	Stenotic sciatica in older adults — different pattern and management.

## Get your personalised report — or speak to a specialist

To receive this fact sheet by email, or to book a consultation, use the options below.

<p><b>Get this report by email</b> Enter your details and we will send you this fact sheet with your personalised assessment summary.</p> <p><b>Your name</b></p> <input type="text"/>	<p><b>Book a consultation</b> Speak with a specialist about your back pain. Leave your details and we will be in touch.</p> <p><b>Your name</b></p> <input type="text"/>
<p><b>Email address</b></p> <input type="text"/>	<p><b>Email address</b></p> <input type="text"/>
<p><b>Send Me the Report</b></p> <p>Your details are used only to send your report.</p>	<p><b>Phone number</b> <i>Best number to reach you</i></p> <input type="text"/>
	<p><b>Best time to call</b> <i>e.g. mornings, weekday afternoons</i></p> <input type="text"/>
	<p><b>Preferred contact method</b></p> <p> <input type="checkbox"/> Phone         <input type="checkbox"/> Video         <input type="checkbox"/> Email       </p> <p><b>Briefly describe your back pain</b> <i>Main concern and duration</i></p> <input type="text"/>
	<p><b>Request a Consultation</b></p> <p>We aim to respond within one working day.</p>

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