FACT SHEET — SPINAL — MECHANICAL

# Lumbar Disc Herniation

*Understanding disc prolapse, nerve root compression, and sciatica — causes, recovery, and when to act*

A lumbar disc herniation — sometimes called a prolapsed, slipped, or bulging disc — is one of the most common causes of back and leg pain. The term sounds alarming but most disc herniations resolve without surgery and respond well to the right conservative management.

**■ See your GP urgently if you have:**

- Sudden difficulty controlling your bladder or bowel
- Numbness or altered sensation between your legs (saddle area)
- Rapidly worsening leg weakness in one or both legs
- These may indicate cauda equina syndrome — a spinal emergency requiring same-day treatment

## What a disc herniation is

Between each vertebra of the spine sits an intervertebral disc — a tough outer ring (annulus fibrosus) surrounding a gel-like centre (nucleus pulposus). When the annulus is stressed or damaged, the nucleus can bulge or leak outward, pressing on the spinal nerve roots that exit the spine at that level. This pressure on the nerve is what causes the characteristic leg pain, tingling, and weakness of sciatica.

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| **Disc bulge** | The outer ring weakens but remains intact. The disc bulges outward without the nucleus leaking. Common, often asymptomatic, can cause nerve irritation. |
| **Disc herniation / prolapse** | The nucleus pushes through a tear in the outer ring. More likely to cause significant nerve compression and leg symptoms. |
| **Disc extrusion** | A larger herniation where the nucleus has leaked significantly. Often causes more severe symptoms but also tends to resolve more completely as the leaked material is reabsorbed. |
| **Disc sequestration** | A fragment of nucleus separates from the disc. Usually causes significant symptoms but the fragment is often reabsorbed over time. |

## Common levels and their symptoms

| Disc level | Pattern of symptoms |
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| **L3/L4 — L4 nerve root** | Pain and symptoms down the inner calf and foot. Weakness in knee extension. Reduced knee jerk reflex. |
| **L4/L5 — L5 nerve root** | Pain down the outer calf into the top of the foot and big toe. Weakness lifting the foot (foot drop in severe cases). No reflex change. |

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| **L5/S1 — S1 nerve root** | Pain down the back of the leg into the outer foot and small toes. Weakness on tip-toe standing. Reduced ankle jerk reflex. |

## How it heals

This is the most important thing most patients with disc herniation do not know: the majority of disc herniations improve significantly on their own. The leaked nucleus material is gradually reabsorbed by the body over weeks to months. Studies show that 90% of patients with disc herniation improve significantly within 12 weeks with conservative management — without surgery.

### The natural history of disc herniation

MRI studies following disc herniations over time show that the larger the initial herniation, the more complete the reabsorption tends to be. A disc extrusion (large herniation) often resolves more completely than a small bulge. This is counterintuitive but well documented. Patience, appropriate activity, and the right professional support give most people an excellent outcome without surgical intervention.

## Recovery and treatment

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| **Stay as active as possible** | Bed rest prolongs recovery. Gentle walking, swimming, and movement within tolerable pain levels promote healing and prevent muscle weakening. |
| **Pain management** | Anti-inflammatories, paracetamol, and nerve pain medications (gabapentin, amitriptyline) can help manage symptoms enough to maintain activity. |
| **Manual therapy** | Osteopathy, physiotherapy, and chiropractic can reduce pain, improve movement, and guide rehabilitation. Specific techniques are chosen based on the level and nature of the herniation. |
| **Rehabilitation exercises** | Specific exercises addressing core stability, nerve mobility, and functional movement are a core component of recovery. Your practitioner will guide this. |
| **Steroid injection** | A spinal nerve root injection (epidural or transforaminal) can significantly reduce inflammation and pain in severe cases, creating a window for rehabilitation. |
| **Surgery** | Reserved for cases with severe or worsening neurological deficit, failed conservative management over 6–12 weeks, or cauda equina syndrome. Most people do not need it. |

## Related fact sheets

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| **Sciatica — comprehensive guide** | The full picture of nerve root pain including causes, levels, and recovery. |
| **Cauda equina syndrome** | The spinal emergency that can arise from severe disc herniation — symptoms and action. |
| **Spinal stenosis** | Narrowing of the spinal canal — different mechanism, overlapping symptoms. |

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| **Surgical considerations for back pain** | When surgery is appropriate and what it involves. |
| **Pilates and yoga for back pain** | Rebuilding core stability and movement confidence after disc injury. |

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

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### Get this report by email

Enter your details and we will send you this fact sheet with your personalised assessment summary.

**Your name**

**Email address**

**Send Me the Report**

Your details are used only to send your report.

### Book a consultation

Speak with a specialist about your back pain. Leave your details and we will be in touch.

**Your name**

**Email address**

**Phone number**
*Best number to reach you*

**Best time to call**
*e.g. mornings, weekday afternoons*

**Preferred contact method**

■ Phone ■ Video ■ Email

**Briefly describe your back pain**
*Main concern and duration*

**Request a Consultation**

We aim to respond within one working day.

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