

Lumbar disc herniation

What you're feeling

The usual pattern starts with lower back and buttock pain that comes and goes, often for months or years before anything severe happens. Then a bending episode, like lifting or reaching down, suddenly brings on leg pain. For most people with this condition, the leg pain is as bad as the back pain, and often worse.

The leg pain follows the path of the affected nerve. Depending on which nerve is compressed, you might feel it down the side or back of your leg, into your foot. You may also have numbness or pins and needles in part of your leg or foot, and some weakness that comes and goes with activity. Coughing, sneezing or straining often makes the pain worse. Resting helps, especially lying down with your knees bent and your head raised. Sitting, bending forward and long periods on your feet tend to aggravate it.

Day to day, this can make simple things hard. Getting out of a chair, putting on socks and shoes, or standing at the kitchen bench can all flare the pain. You might find yourself leaning to one side or walking differently to take pressure off the nerve. Some people notice their thigh or calf is smaller on the affected side if the pain has lasted a while.

There is one pattern that needs urgent attention. If you suddenly lose control of your bladder or bowels, or develop numbness around your back passage or groin, that suggests pressure on the bundle of nerves at the base of the spine. This needs to be assessed straight away.

What's actually happening

Between the bones of your lower spine sit small cushions called discs. Each disc has a soft, jelly-like centre surrounded by a tough outer ring. Think of the outer ring as the wall of a tyre and the soft centre as the gel inside it. The wall is built from many thin layers of strong fibre, wrapped around in alternating directions, so it can handle bending and twisting.

With age and wear, the discs lose water and become drier and weaker. In most people this is driven by their genes rather than by any single injury. If the outer wall develops a tear, the soft centre can push through it. Doctors describe this in stages: a bulge with the wall still intact, a rupture where the gel pushes right through the wall, or a loose fragment that breaks off and sits in the spinal canal. Most of these happen in the two lowest discs of the spine, and they are most common between the ages of 30 and 50.

The pushed-out disc material causes trouble in two ways. It can press directly on a nerve root, the nerve that carries signals to and from your leg. It can also leak inflammatory chemicals that irritate that nerve. Both together explain the symptoms you have just read about: pain down the leg, pins and needles, numbness and weakness in the areas that nerve serves.

The good news is that the body often deals with this itself. The pushed-out material can shrink and be absorbed over time, and most people improve without surgery. When surgery is needed, it usually aims to take pressure off the nerve rather than rebuild the disc.

What we can do about it

Dr Kieran Hirpara, a spine surgeon at Mater Private Hospital Rockhampton, starts with the least invasive options that suit your condition. Patients are generally referred to our clinic by their GP; if a physiotherapist has suggested you see us, you will still need a referral from your GP in order to be eligible for the Medicare rebate. We assess you with a history, an examination, and imaging where it is needed. For a problem like this, we usually try non-operative care first.

Most people improve without surgery. More than half of those who seek treatment for low back pain recover within 1 week, and 90% recover within 1 to 3 months. The pattern of this condition is flare-ups of pain followed by stretches of significant or complete relief, so knowing it usually settles is part of the treatment. We encourage you to stay active rather than rest for long stretches, and physiotherapy aims to improve your pain, your range of movement, your back muscle endurance and your day-to-day function. Give this approach a fair go before thinking about surgery. If surgery is needed for nerve problems that are not getting worse, it can usually be delayed 6 to 12 weeks to give your body time to improve.

Medication is the next layer. Anti-inflammatory tablets (NSAIDs, short for non-steroidal anti-inflammatory drugs) and simple pain relief can settle the flare while physiotherapy does its work. If pain is severe, an epidural injection can help: cortisone (a steroid, a strong anti-inflammatory) is placed near the irritated nerve. Steroid injections can provide short-term relief, and more than half of people who have a transforaminal steroid injection (one delivered from the side of the spine towards the nerve) have at least a 50% reduction in pain at 1 month. The effect is short term, and repeat injections are less likely to help again. A platelet-rich plasma (PRP) epidural injection, which uses a concentrate from your own blood, is an option for a single-level herniated disc.

Surgery comes into the conversation when non-operative care has not given enough improvement, when leg pain keeps dominating your life, or when nerve problems are getting worse. Scans alone never decide this; your symptoms and how much the condition restricts you matter more. The operation we most often consider is a discectomy, which removes the piece of disc pressing on the nerve. We will talk through whether it suits you and decide together.

What to expect

For most people, this condition settles with time. The pushed-out disc material can shrink and be absorbed by your body, and this happens in 63% of people who are treated without surgery. Many herniations barely change

over four to eight years. The usual pattern is flare-ups followed by stretches of real relief, so a gradual improvement over weeks to months is the most likely course.

If surgery is needed, it can usually wait 6 to 12 weeks while your body has its chance to improve. When it does go ahead, the main gains tend to come in the first year. Surgery generally relieves leg pain better than back pain, so if your leg pain is the dominant problem, your outlook is better than if back pain dominates. Results also depend on things like how long this episode has lasted, your age, and whether back pain or leg pain bothers you more.

It is honest to say surgery is not a cure. Good results from disc surgery range from 46% to 97%, and no particular way of doing the operation consistently beats another. Complications range from none to more than 10%, and between 4% and more than 20% of people need another operation later. The most common reason is the disc herniating again: this happens in 3% to 7% of patients, and 7% need a further disc operation within five years of the first. No technique has been shown to prevent this, and removing more disc does not prevent it either. If it does come back, you are no worse off before or after a second operation than someone having their first, though you are likely to report more back pain, and each further operation on the spine tends to carry a lower chance of a satisfying result.

Left alone, most herniations do not get dramatically worse, but some people continue to have pain and restriction. Staying active, using medication sensibly and keeping steroid injections to short-term use all fit with what the evidence supports.

When to see someone

Most flare-ups of this condition settle with rest, time and simple pain relief, so seeing your GP within a few days is usually enough. Ask for a specialist review if your leg pain is much worse than your back pain, if it has not improved after 6 to 12 weeks of the right non-operative care, or if weakness, numbness or pins and needles in your leg are getting worse rather than better.

Go to an emergency department straight away if you suddenly lose control of your bladder or bowels, or develop numbness around your back passage or groin. These are signs of pressure on the bundle of nerves at the base of your spine, and they need same-day assessment.