



Lumbar Decompression - With or Without Fusion

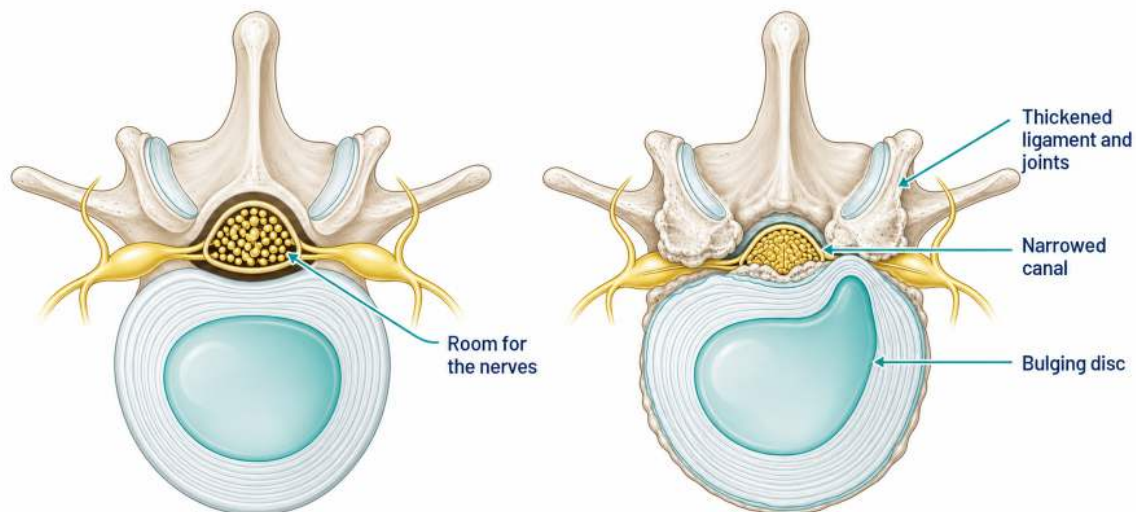
Patient information about surgery for lumbar spinal stenosis

Why you have been given this sheet

This guide explains lumbar spinal stenosis, minimally invasive or endoscopic decompression, when fusion may be considered, and the usual recovery. It supports your discussion with the surgical team and complements - but does not replace - the formal consent process. Your operation will be tailored to your symptoms, examination and imaging.

What is lumbar spinal stenosis?

Lumbar spinal stenosis means that the space available for nerves in the lower spine has become narrowed. Pressure on the nerves may cause pain, tingling, numbness or weakness in one or both legs. Some patients develop neurogenic claudication: heaviness, pain or altered sensation when standing or walking that improves with sitting or bending forward.



Simplified axial view. In stenosis, age-related changes reduce the space around the nerves.

Possible causes

- Thickening of the ligamentum flavum and enlargement of the facet joints.
- Disc bulging, disc herniation or loss of disc height.
- Bone spurs and other degenerative changes, including facet joint cysts.
- Degenerative spondylolisthesis, scoliosis or another deformity that narrows the canal or foramina.

Initial treatment: a spinal injection

An image-guided epidural or selective nerve-root injection is often tried first. It may temporarily reduce inflammation and help confirm which nerve is causing symptoms, but it does not remove the narrowing. Benefit is commonly short-lived and may become shorter or less reliable with repeated injections. Surgery is considered when symptoms remain limiting despite appropriate non-operative care, or sooner for progressive weakness or bladder or bowel symptoms.

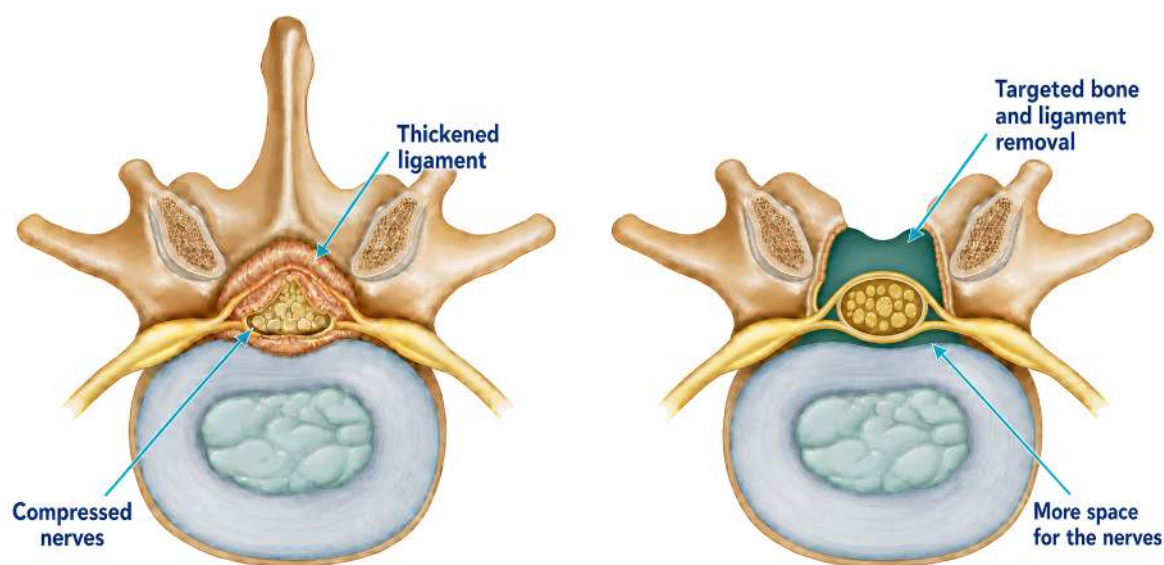
Creating space for the nerves

We use the least disruptive approach that adequately treats the compression. The exact technique is selected for each patient according to the location and severity of stenosis, spinal stability and individual anatomy.

Minimally invasive or endoscopic decompression

Whenever appropriate, decompression is performed through a minimally invasive or endoscopic approach. In minimally invasive surgery, the operating microscope provides magnified illumination and a detailed microscopic view of the nerves and surrounding structures. This allows targeted removal of the bone and thickened ligament causing compression while protecting normal anatomy.

These techniques use smaller incisions and minimise disruption to the surrounding muscles and supporting structures. Potential benefits compared with a traditional open approach may include less postoperative pain, reduced blood loss, earlier mobilisation and faster recovery. The most appropriate technique depends on your individual condition.



A targeted decompression usually does not destabilise a spine that was stable before surgery. The amount of bone removed depends on the anatomy and location of compression.

Typical operating time for one level

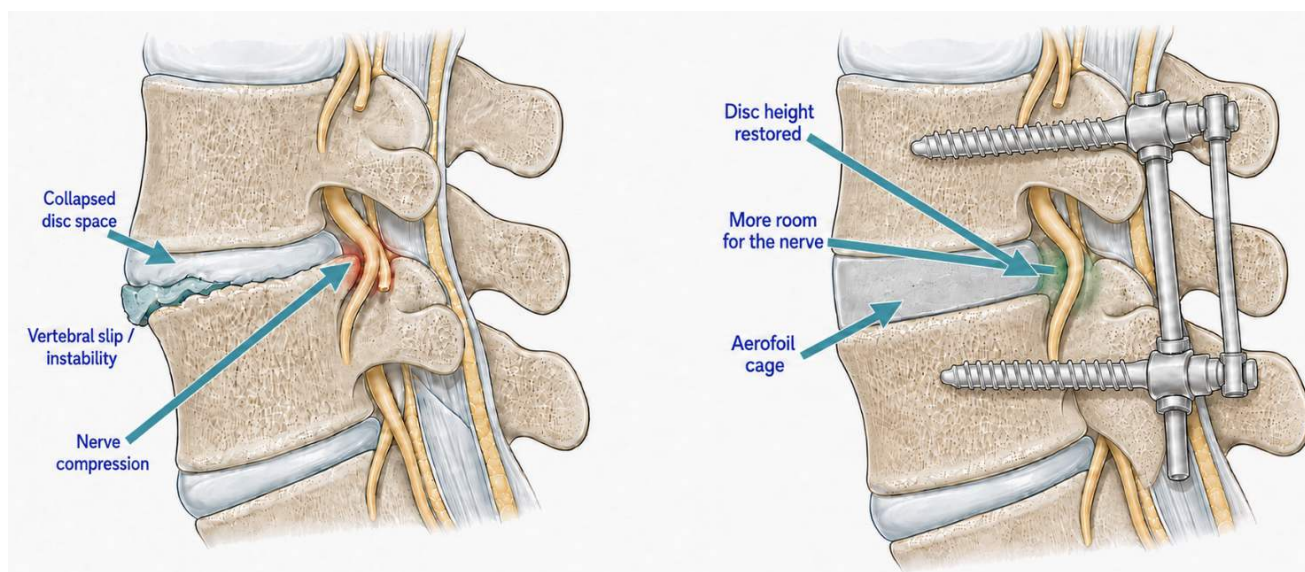
A single-level lumbar decompression usually takes approximately one hour. This is a guide only; operating time varies with the anatomy, severity and location of compression, and the technique required.

When might fusion be added?

Fusion is added selectively rather than routinely. Modern trials show that many patients - including some with degenerative spondylolisthesis - do well with decompression alone. Fusion may be recommended when the spine is deformed or unstable, or when adequate decompression would be expected to create instability.

- Movement or instability demonstrated clinically or on flexion-extension imaging.
- Significant or progressive spondylolisthesis, scoliosis or loss of alignment.
- Severe foraminal collapse where restoring disc height is required.
- Removal of enough facet joint to compromise stability.
- Selected revision operations or recurrent stenosis associated with instability.

Choosing decompression alone or adding fusion



When fusion is required, we generally use an Aerofoil anatomical cage to restore disc height and alignment, together with navigated pedicle screws and rods. Decompression with fusion usually takes about two hours and is generally completed in one stage.

Decompression alone or decompression with fusion

	DECOMPRESSION ALONE	DECOMPRESSION + FUSION
ADVANTAGES	Smaller operation; less tissue disruption; quicker recovery; preserves motion; avoids implant- and fusion-related risks.	Treats instability or deformity; restores disc height or alignment when needed; protects a segment that would otherwise be unstable.
TRADE-OFFS	Does not correct meaningful instability or deformity; later fusion may be required if instability develops or was underestimated.	Longer operation and hospital stay; greater recovery burden; risks of non-union, implant problems and adjacent-level degeneration.

Expected benefit

The main aim is to improve leg pain, altered sensation and walking tolerance by relieving nerve pressure. Improvement in nerve-related symptoms is generally more predictable than complete relief of longstanding low-back pain or numbness. When surgery is appropriate, decompression commonly provides faster symptom relief than continuing unsuccessful non-operative treatment; the choice and timing remain individual.

Hospital stay and early activity

DECOMPRESSION ALONE

You may go home the same day if you feel ready and discharge criteria are met; otherwise, one night is usual.

WITH FUSION

A stay of approximately two nights is usual, depending on mobility, pain control and medical recovery.

Recovery guide

WITHIN HOURS	You will usually stand and walk shortly after surgery. Walk little and often, increasing distance as comfort allows.
FIRST 2 WEEKS	Daily activities are encouraged within comfort. Strong pain medication may be reduced progressively. Wound review is usually at 2 weeks.
DRIVING	Usually after about 2 weeks, when cleared, provided you are not taking sedating medication and can safely control the vehicle.
AROUND 6 WEEKS	Surgeon review and physiotherapy. Physiotherapy focuses on rebuilding spinal and core muscle function.
LONG-TERM FOLLOW-UP	Follow-up with your surgeon continues beyond six weeks throughout recovery. Periodic long-term review or imaging may be arranged when appropriate.

Possible complications, alternatives and follow-up

Possible complications

Most patients recover without a major problem, but no operation is risk-free. Your personal risk depends on your health, anatomy and the procedure performed.

MORE COMMON OR USUALLY MANAGEABLE

Temporary wound pain; nausea or constipation; temporary increase in nerve symptoms; residual numbness or back pain; minor wound problems; urinary retention.

LESS COMMON

Dural tear and spinal-fluid leak; infection; bleeding or haematoma; nerve injury or weakness; blood clot; recurrent or residual stenosis; later instability or further surgery. With fusion: non-union, implant-related problems or adjacent-level degeneration.

Seek urgent medical advice

Seek urgent assessment for new or worsening weakness, loss of bladder or bowel control, numbness around the saddle area, fever, wound drainage, chest pain or shortness of breath.

Alternatives to surgery

- Education, activity modification and a structured exercise or physiotherapy program.
- Medication selected with your GP or treating physician.
- Injections in selected patients, mainly for temporary symptom control or diagnostic information.
- Continued observation when symptoms are tolerable and there is no progressive neurological deficit.

Non-operative care can be reasonable early in the condition and may improve symptoms for some people, but it does not physically enlarge a persistently narrowed canal.

Your surgeon

Dr David Edis | Orthopaedic and Spine Surgeon | MBBS, FAOrthA, GradDipHealthAdmin

David leads the spinal surgical team and has particular expertise in minimally invasive and endoscopic decompression, adult spinal conditions, OLIF and posterior robot-guided fixation. He uses the least disruptive operation that adequately treats the compression while preserving stability whenever possible.

Aerofoil disclosure

Dr David Edis co-designed the Aerofoil anatomical lumbar interbody cage used in selected fusion procedures. The device has received TGA approval and is listed for use in Australia. Dr Edis holds associated intellectual property and may receive a financial benefit related to its use. The clinical study of the Aerofoil cage has been published.

Selected references

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