

FACT SHEET — SPINAL — MECHANICAL

Lumbar Spinal Stenosis

Narrowing of the spinal canal — causes, symptoms, neurogenic claudication, and management

Lumbar spinal stenosis is a narrowing of the spinal canal or the exit foramina through which nerve roots leave the spine. It is primarily a condition of older adults and one of the most common causes of leg pain and reduced walking tolerance in people over 60. It is frequently underdiagnosed or misattributed to peripheral vascular disease.

■ See your GP if you have:

- Progressive or rapid worsening of leg weakness
- Bladder or bowel changes alongside leg symptoms
- Significant and worsening neurological deficit
- Symptoms that are substantially limiting your daily life and not responding to conservative management

What it is

As the spine ages, several structures contribute to canal narrowing: the intervertebral discs lose height and bulge outward; the facet joints enlarge and develop bony spurs (osteophytes); the ligamentum flavum (the ligament at the back of the canal) thickens and buckles. Individually each of these changes may be tolerable — together they progressively reduce the space available for the neural structures.

The hallmark symptom — neurogenic claudication

The characteristic presentation of lumbar stenosis is neurogenic claudication — leg heaviness, aching, or weakness that develops after walking a certain distance and is relieved by sitting, leaning forward, or stopping.

The trolley sign

Many patients notice that they can walk further in a supermarket when leaning on a trolley than without one. This is because leaning forward slightly flexes the lumbar spine, opening the canal and relieving pressure on the neural structures. This "trolley sign" is one of the most reliable clinical indicators of neurogenic claudication.

Feature	Distinguishing characteristics
Neurogenic claudication (stenosis)	Develops after walking. Relieved by sitting, leaning forward, or stopping. Often bilateral. Associated with tingling, heaviness, or weakness in both legs. Eases more slowly.
Vascular claudication (arterial disease)	Develops after walking. Relieved quickly by standing still. Usually calf pain only. No tingling or weakness. No postural component.

Management

Physiotherapy and exercise	Flexion-based exercise programmes are the foundation of conservative management. Core stability, cycling, swimming, and aquatic therapy. Avoid extension-loaded activities which worsen symptoms.
Manual therapy	Gentle mobilisation and soft tissue work can reduce pain and improve function. High-velocity extension manipulation is contraindicated.
Epidural steroid injection	Can provide significant pain relief, particularly in the short to medium term. Often used to create a window for rehabilitation.
Walking aids	A walking stick or frame improves walking tolerance by allowing the forward lean that opens the canal.
Surgical decompression	Laminectomy or laminotomy to remove the structures causing compression. Generally good outcomes for appropriately selected patients. Most appropriate when conservative management has failed and quality of life is significantly affected.

Related fact sheets

Sciatica	Nerve root pain that frequently accompanies stenosis.
Spondylolisthesis	Vertebral slippage that commonly coexists with degenerative stenosis.
Back pain in older adults	The broader context of back pain in the over-60 population.
Surgical considerations for back pain	When decompression surgery is appropriate.

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