



# Lumbar Spinal Stenosis

**Information for people in our care**

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# What is Lumbar Spinal Stenosis?

**Lumbar Spinal Stenosis (LSS)\* is a term used to describe pain in the legs caused by a problem in the lower back.**

In the spine there is a central tunnel (canal) that protects the spinal cord as it travels from the neck to the lower back. By the time the spinal cord reaches the lower back it sends out several smaller nerves known as nerve roots. These continue to travel in the spinal tunnel of the lower back before they travel down into the legs. With age the spinal tunnel naturally matures and this includes a gradual narrowing (stenosis) of the tunnel in most people. For some this narrowing can crowd (gently squeeze) and irritate the nerve roots.



\* 'Lumbar' refers to the lower back. 'Spinal' refers to the spinal tunnel. 'Stenosis' means narrowing.

## What are symptoms of Lumbar Spinal Stenosis?

Common symptoms of LSS include an aching or cramping pain in the lower back, buttocks, thighs and/or calves.

Symptoms vary from mild and intermittent to severe and disabling. A hallmark feature of LSS is pain reproduced with standing and walking that is eased with sitting or with bending forwards (e.g., leaning forward on a shopping trolley). This is because the spine is flexed in these positions and the size of the tunnel increases. Other symptoms include heaviness or weakness in the legs with walking and cramps in the legs at night time. Some people with LSS may also experience pins and needles or tingling.

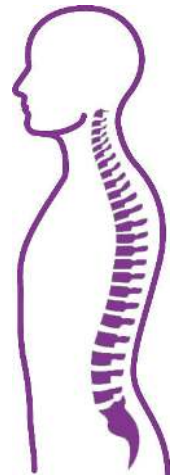


## What causes Lumbar Spinal Stenosis?

LSS is caused by spinal tunnel narrowing and irritation of the lumbar nerve roots.

The good news is that nerve roots are structurally resilient and harm is unlikely to be caused when pain is felt. Pain can also be influenced by general factors such as reduced sleep, stress and emotional wellbeing. Essentially anything that impacts general health.

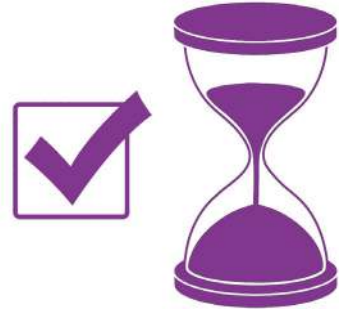
An important message is that not all spinal tunnel narrowing will lead to symptoms. Narrowing of the spinal tunnel is a normal part of ageing. Approximately three quarters of people over the age of 40 are expected to have moderate spinal tunnel narrowing.



## Who gets Lumbar Spinal Stenosis?

LSS affects about 11% of the general population but it is very uncommon under the age of 50.

The average age is between 62 to 69 years old. Up to 60% of people with mild to moderate symptoms experience rapid improvement in symptoms or remain the same over time. Any progression of symptoms is usually slow. This allows time for symptoms to be monitored and for treatments to be considered.

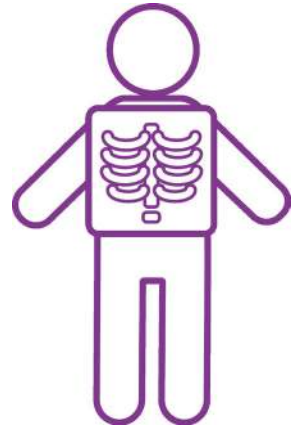


## Are scans needed to diagnose Lumbar Spinal Stenosis?

Scans are not usually required to diagnose LSS.

LSS is a clinical diagnosis based on history, symptoms and physical examination. For a group of people with severely limiting LSS, scans may be needed for surgical planning. Scans might also be needed when a serious medical disorder is suspected. Thankfully, these conditions are rare.

An assessment with your health professional will help determine if you require a scan.



## Alternative causes of leg pain

Not all leg pain is related to LSS.

Pain sensitive muscles and joints of the back, hip and pelvis can cause leg pain. Another condition that may cause similar symptoms as LSS is Peripheral Artery Disease (PAD) where the blood supply in the legs is restricted.

Your health professional can assess your problem to find out if you have LSS or whether your symptoms are caused by something else.



## How is Lumbar Spinal Stenosis managed?

Management of LSS is based on a number of factors including symptom burden, general health and treatment preference.

It's safe for people to continue walking with leg pain as long as symptoms remain acceptable. For some, short pauses may be required. Bending the back when pain intensifies can also provide symptom relief (e.g., reaching to touch toes). Advice on lifestyle, weight loss and medicines review may be helpful but there is currently insufficient evidence to make any strong recommendations.



Whilst being supported to manage your problem, try to maintain things that bring value to your life. This might include things like playing with grandchildren, going for a meal with a friend or staying in work. This may be difficult at times but it can help with coping and emotional wellbeing.

## How is Lumbar Spinal Stenosis Treated?

The two treatment options for LSS are exercise therapy and surgical decompression.

The purpose of treatment is to alleviate symptoms and to improve quality of life. Treatment recommendations are based on clinical assessment, best available evidence and patient preference. Current guidelines recommend an initial 12 weeks of progressive exercise therapy with or without support from a physiotherapist.



Discuss treatment options with your health professional..

### Exercise as therapy

Exercise therapy is a first-line treatment for patients with LSS.

The purpose of exercise for LSS is not to change spinal tunnel narrowing but rather to reduce irritation and improve nerve root resiliency to movement. Exercise may also help with general function, muscle strength and balance associated with later life. Exercise is safe and offers a number of additional health benefits.



Examples of exercise therapy include a progressive cycling programme, an adjusted walking programme or stretching routine. For those with intense or disabling pain, exercise approaches that do not directly provoke pain like swimming may be suggested. Evidence for exercise therapy is inconclusive but studies are currently underway to better understand its role.

## Surgical Decompression

Surgical management of LSS involves decompression of the nerve roots.

A procedure known as laminectomy where a small part of the spinal tunnel wall is removed. This may be considered if symptoms are severe, with progressive neurological decline or following a period of exercise therapy. There is currently no definitive evidence that laminectomy improves symptoms associated with LSS. While some have improvements in symptoms, others do not. Studies are currently underway to better understand the role of laminectomy in improving pain in patients with LSS. Injections are not usually recommended.

If laminectomy is considered your surgeon will discuss risks and benefits with you.





## Let us know what you think and get involved

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