OS17 Lumbar Spinal Decompression

What is spinal stenosis?
Spinal stenosis is where the space in the centre of the spine (spinal canal) narrows. The spinal canal contains the nerves that leave the lower end of the spinal cord (see figure 1).

![Figure 1
Normal vertebra](attachment:image1.png)

Your surgeon has recommended a spinal decompression operation. However, it is your decision to go ahead with the operation or not. This document will give you information about the benefits and risks to help you make an informed decision. If you have any questions that this document does not answer, you should ask your surgeon or any member of the healthcare team.

How does spinal stenosis happen?
A combination of arthritis in the spine, thickening of the ligaments, and bulging of the discs can cause the spinal canal to narrow (see figure 2). This is more likely to be a problem if your spinal canal was a little narrow to start with.

![Figure 2
The causes of spinal stenosis](attachment:image2.png)

The nerves can get trapped in the spinal canal or where they leave the spine. This causes weakness or pain in your legs which is usually brought on when you walk or stand. You can usually get relief by bending forwards or sitting.

What are the benefits of surgery?
You should be relieved of any pain or weakness in your legs. If you also have back pain, this is less likely to get better after surgery because of wear and tear in your spine.

Are there any alternatives to surgery?
If you only have mild symptoms, you may not need any treatment. If you have pain down your leg that is caused by pressure on a nerve in your lower back (sciatica), you can have a steroid injection in your spine. This involves injecting drugs into an area called the epidural space near the affected nerves. However, if your symptoms are severe or are getting worse, surgery is usually the only option.
What will happen if I decide not to have the operation?

Your symptoms are unlikely to get worse quickly. A few people will even get better with time.
You can have a steroid epidural injection in your spine to treat any pain in your legs.
If your symptoms get worse, you may decide to have surgery.

What does the operation involve?

You will usually have a special scan, called an MRI scan, to confirm the diagnosis and help your surgeon to plan the operation.
A variety of anaesthetic techniques are possible. Your anaesthetist will discuss the options with you and will recommend the best form of anaesthesia for you. The operation usually takes between an hour and an hour and a half.
Your surgeon will make a cut in the centre of your lower back. They will part the muscles to get to the spine.
Your surgeon will remove enough bone and ligament tissue from the back of the spine to free the trapped nerves (see figure 3).

What should I do about my medication?

You should continue your normal medication unless you are told otherwise.
Let your surgeon know if you are on warfarin or clopidogrel. Follow your surgeon’s advice about stopping this medication before the operation.

What can I do to help make the operation a success?

• Lifestyle changes
If you smoke, try to stop smoking now. Stopping smoking several weeks or more before an operation may reduce your chances of getting complications and will improve your long-term health.
For help and advice on stopping smoking, go to www.gosmokefree.co.uk.
You have a higher chance of developing complications if you are overweight.
For advice on maintaining a healthy weight, go to www.eatwell.gov.uk.

• Exercise
Regular exercise can reduce the risk of heart disease and other medical conditions, improve how your lungs work, boost your immune system, help you to control your weight and improve your mood. Exercise should help to prepare you for the operation, help with your recovery and improve your long-term health.
For information on how exercise can help you, go to www.eidoactive.co.uk.
Before you start exercising, you should ask a member of the healthcare team or your GP for advice.

What complications can happen?

The healthcare team will try to make your operation as safe as possible. However, complications can happen. Some of these can be serious and can even cause death (risk: 1 in 300). You should ask your doctor if there is anything you do not understand.
Any numbers which relate to risk are from studies of people who have had this operation. Your doctor may be able to tell you if the risk of a complication is higher or lower for you.
The complications fall into three categories.
1. Complications of anaesthesia
2. General complications of any operation
3. Specific complications of this operation

1. Complications of anaesthesia
Your anaesthetist will be able to discuss with you the possible complications of having an anaesthetic.

2. General complications of any operation
- **Pain**, which happens with every operation. The healthcare team will try to reduce your pain. They will give you medication to control the pain and it is important that you take it as you are told so you can move about as advised.
- **Bleeding** during or after surgery.
- **Infection in the surgical wound** (risk: 1 in 40). If this happens, you will need antibiotics and sometimes further surgery to clean out the wound.
- **Unsightly scarring** of the skin.
- **Blood clots** in the legs (deep-vein thrombosis) (risk: 1 in 125), which can occasionally move through the bloodstream to the lungs (pulmonary embolus), making it difficult for you to breathe. You may be given treatment to reduce the risk of blood clots.
- **Difficulty passing urine**. You may need a catheter (tube) in your bladder for a day or two (risk: 1 in 25).
- **Chest infection**. If this happens, you may need antibiotics and physiotherapy.
- **Heart attack or stroke**. This can happen because a spinal decompression is a major operation. A heart attack or stroke can occasionally cause death.

3. Specific complications of this operation
- **Continued pain or numbness** down your leg, caused by damage to nerves in the spine (risk: 1 in 250).
- **Numbness between your legs, loss of normal bowel and bladder control and, in men, problems with having an erection**. These problems can happen because nerves in the spine can get damaged during surgery. Although the nerves should get better over time, 3 out of 5 people with nerve damage do not get completely back to normal.
- **Tear of the thin membrane that covers the nerves in your spine** (dural tear) (risk: 1 in 60). If this happens, spinal fluid can leak out and you may have a bad headache for a few days. Your surgeon may need to repair the tear, either during the operation or with another operation later.
- **Infection in the spine** (risk: 1 in 100). If this happens, you will usually need another operation to clean out the infection. You will also need a long course of antibiotics.

How soon will I recover?

- **In hospital**
After the operation you will be transferred to the recovery area and then to the ward. You will normally be able to start walking on the first day after surgery. Your surgeon will tell you if you need to wear a brace to support your back.
You should be able to go home after three to five days. However, your doctor may recommend that you stay a little longer. If you are worried about anything, in hospital or at home, ask a member of the healthcare team. They should be able to reassure you or identify and treat any complications.
• Returning to normal activities

Your surgeon, physiotherapist and occupational therapist will tell you when you can return to normal activities. You may be given some back exercises to do at home.
Regular exercise should help you to return to normal activities as soon as possible. Before you start exercising, you should ask a member of the healthcare team or your GP for advice.
Do not drive until you are confident about controlling your vehicle and always check with your doctor and insurance company first.

• The future

Most people make a good recovery from surgery with 19 in 20 people able to return to their normal activities.
Surgery should relieve any leg pain. However, you may still get backache from time to time because of wear and tear in your spine.
Spinal stenosis can sometimes come back at the same place or at a different place in the spine. 1 in 20 people will need another operation in the first four years after surgery.

Summary

Spinal stenosis causes pain or weakness in your legs. If your symptoms are severe, a spinal decompression operation should relieve your symptoms and help you to return to normal activities.
Surgery is usually safe and effective. However, complications can happen. You need to know about them to help you to make an informed decision about surgery. Knowing about them will also help to detect and treat any problems early.

Further information

• NHS smoking helpline on 0800 169 0 169 and at www.gosmokefree.co.uk
• www.eatwell.gov.uk – for advice on maintaining a healthy weight
• www.eidoactive.co.uk – for information on how exercise can help you
• www.aboutmyhealth.org - for support and information you can trust
• American Academy of Orthopaedic Surgeons at www.aaos.org
• North American Spine Society at www.spine.org
• NHS Direct on 0845 46 47 (0845 606 46 47 - textphone)
• www.eidohealthcare.com

Acknowledgements

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Local information
You can get information locally from the Patient Advice and Liaison Service (PALS) on 02380 798 498 or email PALS@suht.swest.nhs.uk.
You can also contact:

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