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design by Medical Illustration

# Information for patients Lumbar Decompression



# Spinal Disorders



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## Introduction

You have been scheduled for an operation called a lumbar decompression. This is a procedure that is performed in the low back with the aim of improving the space for the nerves (nerve roots) within the lumbar spine. The aim of the surgery is to improve leg pain caused by a reduction in the space for the nerves at the bottom part of the back - a condition known as spinal stenosis.

Patients with stenosis have a reduction in their ability to stand and walk due to leg pain. They have to sit down or lean forward to relieve this pain.

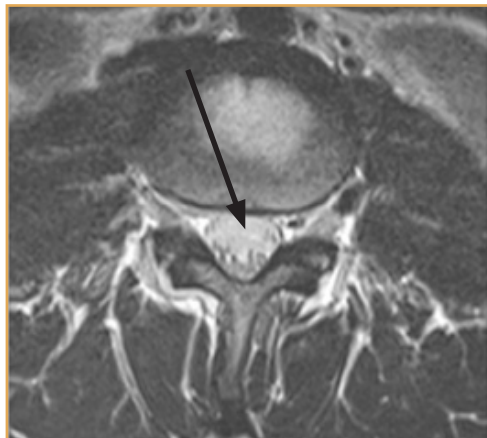
## Reason for surgery

Usually, patients undergoing this operation have severe leg pain affecting one or both legs and it will be significantly interfering with your ability to walk. This is not an operation for the relief of back pain, although some patients do find that their back pain is improved after this operation. The operation is usually reserved for patients who have severe symptoms of a marked reduction in their walking ability due to pain. On occasions patients may have weakness in the leg muscles and this would be another reason for consideration of surgery.

Many patients may have symptoms of stenosis but surgery is usually reserved for those whose quality of life is significantly affected. If symptoms are manageable, it is best to avoid surgery. In most patients this condition gets worse very slowly over years.

## What happens

The nerves in the base of the spine sit in a water filled tube called the spinal canal (see arrow in figure below).



## Return to normal function

Patients are able to sit or stand on the day of surgery and start walking the next day. They may need some supports to begin with. Most patients will be able to get out of bed, move around in the ward, go to the toilet and manage the stairs before going home.

The back will hurt more after surgery but in 2-3 weeks this feeling of tightness and pain in the back settles down. Skin takes two weeks to heal; bones, tendons and muscles take 6-8 weeks. For most patients back pain will return to a level similar to pre-op in 2-3 months.

There are no restrictions in walking or sitting. Most patients are back to driving in 4-6 weeks. Lifting and bending should not be done for 2-3 months. Some patients may need physiotherapy for back pain if symptoms don't settle by 3 months.

## Summary

Decompression is a successful operation for relieving leg pain. The results of surgery cannot be guaranteed. A decision to proceed with surgery is one taken jointly by yourself and by your Surgeon. The vast majority of operations are highly successful. There are some small risks associated with the surgery and if these occur, they can be significant.

## Recurrent stenosis

As the underlying cause of the spinal canal narrowing is a wear and tear process, there is potential for recurrence of the same problem at the operated level or at the other levels of the spine. The chance of needing revision surgery 8 years after surgery is 1 in 5. If needed, surgery can be repeated, although the risk of complications is higher with re-do procedures.

## What to expect after surgery

You may have a small drain (tube) coming out of your wound. This prevents any excess blood or fluid from collecting there. This will be removed when the drainage has stopped, usually 24 hours later. You will have some discomfort or pain at the surgical site and also at the site where the bone graft was taken.

**Please contact the ward if you have any of the following:**

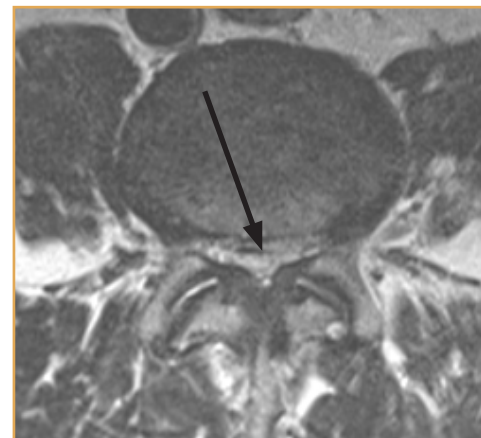
- Redness around the wound
- Wound leakage
- High body temperature

## Recovery

You will usually be in hospital for 2-3 nights. You will be up and walking approximately 24 hours after the operation although this will depend on how you feel at that time. Provided you were able to walk before the operation, then there should be no difficulties in your walking afterwards. Some patients with severe spinal stenosis have great difficulty walking before their surgery and thus their post-operative recovery period may be longer.

Please arrange for a friend or relative to collect you, as driving yourself or taking public transport is not advised in the early stages of recovery. If you are likely to require patient transport please inform one of the nurses as soon as possible.

In spinal stenosis, this space becomes narrowed and as a result, there is less space for the nerves (see arrow in figure below).



The operation enlarges the space for the nerves. The condition often affects more than one segmental level (joint) of the spine. The surgery may therefore be done at several levels of the spine.

## Segmental decompression with fusion

On occasions, some patients need to have a spinal fusion procedure performed at the time of their segmental decompression. This is at the discretion of the surgeon if he feels that improving the space for the nerves could lessen the structural stability of the low back. He may therefore choose to combine your operation with a fusion so as to ensure the strength of your back is not adversely affected. For further information re fusion please see fusion pamphlet.

## Rewards of surgery

Unfortunately, no operation is guaranteed to relieve you of your symptoms. It is however broadly accepted that approximately 80% of patients who undergo this operation have significant improvement in their leg pain and improvement in walking ability. Pain is the main symptom that one can predictably improve, not numbness, weakness or loss of balance. Two thirds of patients are able to walk as much as needed after surgery.

If you suffer from tingling in the legs, this may be improved. Symptoms such as numbness, weakness and heaviness are far less predictable and may not improve as a result of this operation. If surgery is successful it should stop weakness and loss of balance from getting worse.

## Risks of surgery

All operations come with some small degree of risk. Risks of the segmental decompression operation include:

### The risks of a general anaesthetic.

General anaesthetics have some risks, which may be increased if you have chronic medical conditions, but in general they are as follows:

- Common temporary side-effects (risk of 1 in 10 to 1 in 100) include bruising or pain, blurred vision and sickness. These can usually be treated and pass off quickly.
- Infrequent complications (risk of 1 in 100 to 1 in 10,000) include temporary breathing difficulties, muscle pains, headaches, damage to teeth, lip or tongue, sore throat and temporary problems with speaking.
- Extremely rare and serious complications (risk of less than 1 in 10,000). These include severe allergic reactions and death, brain damage, kidney and liver failure, lung damage, eye injury, and damage to the voice box. These are very rare and may depend on whether you have other serious medical conditions.

## Wound infection

Superficial wound infection can usually be successfully treated with anti-biotics. Deep wound infection is rare. Usually, this will be treated with anti-biotics. If this treatment fails, further surgery may be required to clean away any infected material. Bleeding and haematoma (blood clot) in the wound may require further surgery to washout the wound.

## Blood clots

Deep vein thrombosis is a possible problem, but is uncommon. If you are at particular risk then special precautions will be taken to reduce the risk. Moving your legs and feet as soon as you can after the operation and walking about early, all help to stop thrombosis occurring. A blood clot in the leg, which in very rare circumstances could pass to the chest is life threatening.

Injections and tablets can be given to thin your blood and reduce the risk of such clots from happening. However, these medications have a 3% risk of bleeding in the operated site, which can cause nerve damage and paralysis. The risk of clot formation which goes to the lungs is less than 1 in 200. For most patients, therefore, the hospital policy is to use foot pumps to keep the circulation going during and after surgery and to mobilise patients early. For high-risk patients this may need to be changed or modified and this discussion will take place at the preoperative clinic meeting.

## Nerve injury and paralysis

During surgery, the nerve has to be moved to one side and this sometimes can result in the patients reporting more tingling in the leg, more numbness in the leg or in rare circumstances, weakness in the leg. These are usually temporary problems that should resolve. The chance of nerve damage is 1 in 100, with another 1 in 100 patients having problems of nerve irritation due to excessive scarring around the nerve root.

Patients are often extremely concerned that they could end up paralysed after surgery on the spine. This is an extremely rare event and the risk is in the order of 1 in 500. This is also known as Cauda Equina Syndrome and includes the potential to permanently and irreversibly damage the nerves that control the strength and sensation in the legs and also that control your bladder and bowel function.

## CSF Leak

The fluid filled sac in which the nerves are floating (dural sac) may tear during surgery and this may need to be repaired. Patients will be asked to lie flat in bed for 1-2 days, if this happens. Rarely patients may need to go back to theatre, if the first repair at the time of surgery doesn't work. This is usually not a long-term problem. The incidence of dural tear is 4-5 in 100 for first time surgery.

## Back Pain

It is reported that up to 15% of patients feel that their back pain is more troublesome after surgery by comparison to how it was before their discectomy procedure. This often takes the form of grumbling, nuisance level backache and is not disabling. Frequently exercises for back muscles can help with this pain. In some patients when there is worsening of back pain, if this is unmanageable, a second procedure known as a spinal fusion may be required.

## Risks in the elderly

Patients undergoing this operation are usually elderly and in particular if they have other medical problems, the risks of an operation may be slightly higher.

## Other risks

- Failure of symptoms to improve despite technically successful surgery.
- A small risk of worsening of symptoms.