

## Patient Information

### Lumbar Decompression

Following your recent MRI scan and consultation with your Dr Ratahi, you have been diagnosed with a narrowing of your lumbar spinal canal (stenosis). This is usually related to the wear and tear of the spine.

The normal spinal column has a central canal (or passage) through which the spinal cord passes down. To each side of the canal, spinal nerve roots branch out at every level. The spinal cord stops at the top of the lumbar spine (low back) and below that tiny nerve rootlets splay out like a horse's tail (cauda equina). The spinal cord, nerve roots and cauda equina are protected by a tough outer membrane, or covering, called the dura mater.

In spinal stenosis, the spinal nerve roots and / or cauda equina become trapped or compressed by the bony spurs (osteophytes) on enlarged facet joints and the 'buckling' of a ligament (the ligamentum flavum which protects the dura mater). These changes consequently narrow the spinal canal.

When nerves are compressed they can produce symptoms of pain, numbness and tingling in the legs. In rare cases they can produce severe pain and even weakness. Most cases will produce pain in the legs when walking but the pain will be relieved by sitting.

Symptoms may not progress for years and then difficulties with coordination may suddenly increase.

Unfortunately most conservative treatments (manipulation, physiotherapy, medication or injections) are unlikely to be of much benefit and the symptoms rarely improve without surgery to take the pressure off the nerves (decompression).

The objective of surgery is to remove the enlarged bone and 'thickened' ligament from the back of the spinal canal to give the spinal nerves more room.

#### **What happens before I come into hospital?**

This information will help you prepare for admission to hospital. Treatment is always planned on an individual basis so your experience may differ slightly from the information given.

Dr Ratahi will perform your operation at Kensington Hospital.

All our staff are friendly and available to help answer any questions that you may have at any stage of your treatment.

## **Pre-assessment**

If there are concerns around your fitness for an anaesthetic you may be asked to attend a pre-assessment. This is a medical examination made by the anaesthetist who works with Dr Ratahi to make sure you are well enough for surgery.

## **Transport**

Patients are responsible for their own transport to and from the hospital. You will be informed of your admission and discharge date in advance so that you can arrange for a relative, friend or taxi to transport you.

## **What happens on the day of surgery?**

On the morning of your surgery you will be greeted by the staff at the hospital reception on your arrival. Before being taken to the theatre suite you will be greeted by the nursing staff who will be looking after you and ask you to change into a hospital gown to get you prepared for theatre. You will be assessed by Dr Ratahi and the anaesthetist to perform a final check that you are fit for surgery and answer any questions you may have. You will be asked to sign a form giving your consent to the operation. You will then go to theatre, accompanied by a nurse where your personal details and the operation will be confirmed.

## **The procedure**

The operation is performed under general anaesthetic (so you are fully asleep).

The skin incision is made in the midline of the back and the muscles are lifted off the bony arch (lamina). Your surgeon will use a powered high-speed burr and other instruments, to remove a section of bone and ligament that form the back of the spinal canal. In doing so, pressure on the nerves is relieved. The amount of bone removed will depend on the severity and extent of your spinal stenosis.

The results of the surgery can be variable since some people have more extensive disease than others. In general though, the improvement after lumbar decompression surgery is favourable. After surgery the majority of patients can expect to regain significant improvement in their ability to perform normal daily activities and markedly reduced levels of leg pain and discomfort.

The results are not nearly as reliable for the relief of lower back pain. It is the facet joints becoming arthritic that causes lumbar spinal stenosis, so much of the back pain experienced comes from the arthritis. Therefore, surgery to remove some of the lamina and facet joint cannot eliminate this.

## **Risks and complications**

As with any form of surgery, there are risks and complications associated with it. These include:

- Damage to the nerve root and the outer lining or covering which surrounds the nerve roots (dura). This is reported in less than 5% of cases (fewer than 5 out of 100 people). It may occur as a result of the bone being very stuck to the lining and tearing it as the bone is lifted off. Often the hole or tear in the dura is repaired with stitches or a patch. This could result in

back or leg pain, weakness or numbness, leaking from the wound, headaches or, very rarely, meningitis;

- Recurrent sciatica. This can occur as a result of scarring or further disc protrusion and (occurring in approximately 5% of people( 5 out of 100) up to 10 years later);
- Problems with positioning during the operation which might include pressure problems, skin and nerve injuries and eye complications including, rarely, blindness. A special gel mattress and protection is used to minimize this;
- Infection. Superficial wound infections may occur in 2 - 4% of cases (up to 4 out of 100 people). These are often easily treated with a course of antibiotics. Deep wound infections may occur and less than 1% of cases (fewer than 1 out of 100 people). These can be more difficult to treat with antibiotics alone and sometimes patients require more surgery to clean out the infected tissue. The risks may increase for people who have diabetes, reduced immune systems or are taking steroids;
- Bleeding. You must inform your consultant if you are taking tablets used to thin the blood, such as warfarin, aspirin or clopidogrel. It is likely you will need to stop taking them before your operation as they increase the risk of bleeding;
- Blood clots in the deep veins of the legs (DVT) or lungs (PE). This occurs when the blood in the large veins of the legs forms blood clots and may cause the leg to swell and become painful and warm to the touch. Although rare, if not treated this could be a fatal if the blood clot travels from the leg to the lungs, cutting off the blood supply to a portion of the lung. It is reported as happening in fewer than one out of 700 cases. There are many ways to reduce the risk of blood clot forming. The most effective is to get moving as soon as possible after your operation. Walk regularly as soon as you're able to, both in hospital and when you return home. Perform leg exercises described by your physiotherapist and keep well hydrated by drinking plenty of water.
- There are also very rare but serious complications that in extreme circumstances might include damage to the cauda equina and paralysis (the loss of use of the legs, loss of sensation and loss of control of the bladder and bowel). This can occur through bleeding into the spinal canal after surgery (a haematoma). If an event of this nature was to occur, every effort would be made to reverse the situation by returning to theatre to wash out the haematoma. Sometimes, however, paralysis can occur as a result of damage or reduction of the blood supply of the nerves or spinal cord and this is unfortunately not reversible; and a stroke, heart attack or other medical or anaesthetic problems, including death, which is reported as happening and one out of 250,000 cases under general anaesthetic.

### **What to expect after surgery**

Immediately after the operation you'll be taken on your bed to the recovery ward where nurses will regularly monitor your blood pressure and pulse. Oxygen will be given to you through a facemask for a period of time to help you to recover from the anaesthetic. You will have an intravenous drip for about 24 hours or until you are able to drink adequately.

A drain (tube) may come out of your wound if there has been significant bleeding during the operation. This prevents any excess blood or fluid from collecting there. The drain will be removed

when the drainage has stopped, usually 24 hours later. You will have some discomfort or pain after surgery but the nursing and medical staff will help you to control this with appropriate medication.

On the first day after your operation, your physiotherapist or nurse will help you out of bed. They will also show you the correct way to move safely.

### **Going home**

You will normally be allowed to leave hospital when you and your physiotherapist are happy with your mobility. This tends to be within 1 to 2 days after your operation.

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.

### **Wound care**

Your wound will most likely be closed with an absorbable suture. You may shower if you are careful when you get home but bathing should be avoided for two weeks, until the wound is completely dry. Please do not remove your wound dressing before two weeks. If it accidentally starts to come off you must present to your GP's nurse to have the dressing replaced.

### **Please contact your GP to report any of the following;**

Redness around the wound;  
Wound leakage; or  
High body temperature.

### **Driving**

Sitting for prolonged periods is not advisable after surgery and this includes driving. If you have no altered sensation or weakness in your legs then you may resume driving if you feel safe to do so but it is advisable not to travel for long distances without taking a break to stretch your legs.

### **Recreational activities**

Walking is the best activity for you to do after your surgery. Active physical sport should be avoided until that the disc wall heals soundly; this can take 3 - 6 months. A graduated return to sport is then advisable. If in any doubt about certain sports, wait until you can discuss this with your surgeon.

### **Work**

You may need to be off work for six weeks. The rate at which you return will depend on how physical your job is. You will leave hospital with either an ACC certificate or an off work certificate detailing a graduated return to work.

## **Lifting and carrying**

Heavy lifting and carrying should be avoided for the first few weeks.

## **Follow up**

You will leave with an appointment to attend clinic six weeks after your operation. If you have any queries before your follow-up date to please contact Dr Ratahi's PA.

## **Important Information and Disclaimer – Outcome of Surgery**

The goals of surgery are discussed with you prior to the procedure; however, it is important to understand that these goals cannot be guaranteed in every case. In particular, improvement in pain levels may not be achieved, and in some cases symptoms may persist or change despite surgery.

Surgical outcomes may vary depending on individual factors, the nature of the condition, and findings at the time of surgery.

While imaging studies (such as MRI or CT scans) are an important part of preoperative assessment, they do not always fully reflect the condition of the tissues. Findings at surgery may differ from those reported on imaging, and intraoperative findings will guide final decision-making and treatment.