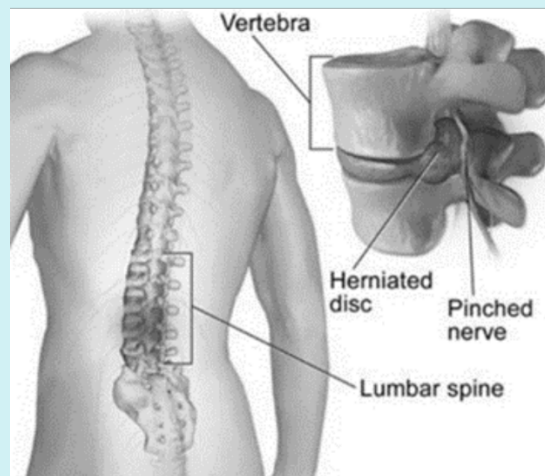


Information leaflet

Posterior lumbar fusion surgery (V3362)

You have been added to the waiting list for a procedure called a lumbar fusion. This is a group of operations performed on the lower back. These include: Postero-lateral instrumented fusion, Transforaminal Lumbar Interbody Fusion (TLIF), Midline Lumbar Interbody Fusion (MidLIF), and Direct Lateral Interbody Fusion (DLIF).



The small joints of your back can develop wear and tear (arthritic) changes. This can also occur in the discs in your back. This can cause narrowing of the spinal canal. The spinal canal is the part of your spine that contains the spinal nerves. When these nerves don't have enough space you can get pain or heaviness in the legs. You may also get some back pain. These symptoms are often worse when you walk.

The procedure aims to relieve the leg symptoms caused by pressure on the spinal nerves. This is done through decompression. Bone and ligaments are removed but sometimes the spine can be left weakened.

To solve this problem, the spine is stabilised with implants in a procedure, which permanently joins together two or more of the bones in your back. This is called lumbar fusion.

Very rarely, your surgeon may offer you a lumbar fusion procedure for back pain alone. This is only after all other treatments have failed and your surgeon thinks they have an understanding of what is causing your back pain. Very few patients with back pain, but no leg pain, are actually suitable for this procedure. It is not guaranteed to be successful.

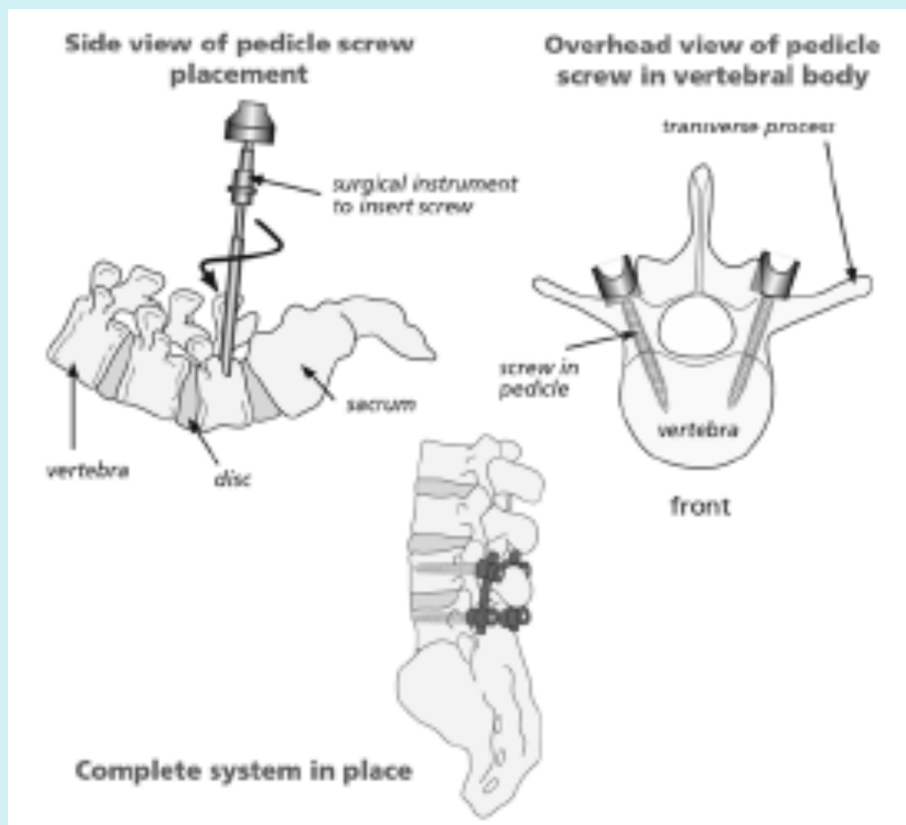
What happens during the procedure?

On the day of your procedure you will see Mr Bateman to confirm you still wish to proceed. He may ask you to confirm your symptoms again. Your anaesthetist will also see you and give you further details about your anaesthetic.

You will be asked to change into a gown and wait on the ward prior to your operation. When it is your turn you will walk to the operating theatre with a nurse to guide you. You will lie on a bed, on your back and be given a general anaesthetic.

Once asleep, you will be rolled onto your front on a special operation table. Your skin is cleaned with antiseptic solution and sterile covers applied. A needle is inserted and an x-ray image taken to confirm the level of your operation.

A small cut is made in the skin and the muscles of your back are moved aside. Sometimes two parallel cuts are made. A small window is made in the bone and ligaments of your back. A further x-ray is taken at this time to ensure that the correct level is treated. Ligament and bone spurs that press on the spinal nerves are removed. The nerves are checked to make sure the pressure has been removed.



Metal screws are carefully inserted into the bones of your back. They are connected together with strong metal rods. Sometimes the disc is removed and replaced with an implant. This sits between the vertebral bodies.

Bone surfaces are prepared and bone graft or a substitute is placed between the surfaces. This acts as a bridge for the fusion.

A further x-ray is taken in the operating theatre to ensure the correct positioning of all the implants. The wound or wounds are then closed with dissolving stitches and tissue glue. A waterproof dressing is applied.

After the procedure you will be rolled onto your back and moved to a bed in the recovery area. Later on you will be moved back to the ward. The procedure usually takes between 2 and 4 hours but the whole process can take a lot longer.

What are the risks?

Lumbar fusion is generally considered a safe procedure. As with any operation, there is a small risk of complications. These may only be rare but you need to be aware of what can go wrong before you agree to the procedure.

- You will have a scar (sometimes 2 or more) on your back.
- About 10 - 20% of patients have on-going leg pain after what is technically a successful operation. We don't always know why this happens. Back pain often improves but may not completely go away.
- If the procedure is performed for back pain alone then approximately 60 - 70% of patients experience an improvement in their symptoms. This rarely results in the symptoms going away completely and 30 - 40% of patients remain dissatisfied with the outcome. Patients who need fusion of more than one section of the spine have less chance of a good outcome.
- The risk of infection is around 1 - 3%. A superficial wound infection usually settles readily with antibiotics. A deep infection can be more difficult to treat and may require a long course of antibiotics and possibly further surgery.
- There is usually some blood loss with this procedure and occasionally heavy bleeding can occur. Sometimes patients require a blood transfusion during or after surgery. Major vessel injury is a rare but potentially life-threatening complication.
- Deep vein thrombosis is another possible problem. It is very uncommon but can go to the lungs and cause serious or life threatening problems. To reduce your risk you will be given special stockings to wear. You should move your legs and feet as soon as you can after the procedure. Walking around as soon as you are able will also help.

- During the procedure the spinal nerves can be injured. This is very rare and can be temporary or permanent. It can cause numbness or weakness in the legs. Even more rare is a loss of bladder or bowel control. These symptoms do not always improve with time.
- There is a small risk of injury to the protective coating (dura) around the nerves. This may need repair during the procedure. It can cause a headache for a few days following the procedure. It should not cause any long-term problems but may slow down your initial recovery. Very rarely the fluid around the nerves can leak. If this happens, it may require further surgery.
- The procedure is intended to cause fusion between the bones in your back. This occurs in about 70% of patients. Even if long-term fusion does not occur, symptoms may still improve. Many of these patients are satisfied with their surgery.
- Although great care is taken, sometimes implants end up in the wrong place or break after they have been inserted. This is rare but does sometimes require further surgery.

The risks of a general anaesthetic include:

- Common temporary side effects including bruising or pain in the area of injections, blurred vision and sickness, these can often be treated and clear quickly.
- Infrequent (less than 1%) complications including temporary breathing difficulties, muscle pains, headaches, damage to teeth, lip or tongue, sore throat and temporary problems speaking.

- Extremely rare and serious complications (less than 1 in 10,000) including severe allergic reactions and death, brain damage, kidney and liver failure, lung damage, permanent nerve or blood vessel damage, eye injury, and damage to the voice box.

If you are concerned about any of these risks, or have any further queries, please speak Mr Bateman.

Alternatives

Mr Bateman has recommended this procedure as being the best option for you. However, the alternatives to this procedure include continuing with pain-relieving medication, physiotherapy or spinal injections. There is also the option of not receiving any treatment at all.

If you would like more information please speak to Mr Bateman or one of the nurses caring for you.

What happens after the procedure?

You will be encouraged to walk as soon as possible after surgery. This will usually be the day after your surgery.

Your back will be painful for the first few weeks, but you will be given pain relievers. You should aim to move around frequently as this will minimise painful back spasm.

A physiotherapist will show you some core stability exercises and stretches that you need to do. You should perform these regularly to maximise the benefits of surgery.

You will normally be allowed to go home from hospital the day after your procedure.

You will be seen in clinic around 6 weeks after the procedure to review your progress.

The time taken to return to work varies. If you work from a home office, you will probably be able to start working within a few days. Light manual workers usually return to work at around 6-8 weeks. Patients who do heavy physical work might not be able to return to work for around 12 weeks following surgery.

Once the wound has fully healed, you can return to gentle activities such as swimming and cycling (usually around 4 - 6 weeks after surgery).

I recommend avoiding heavy lifting for at least 6 weeks after the procedure.

If you are planning to return to sport, you may benefit from a course of physiotherapy to help strengthen the spine before returning to such activity.

You can resume normal sexual activity after surgery as soon as your symptoms allow (usually around 2 - 6 weeks after surgery).

You can return to driving as soon as you are able to control your vehicle and perform an emergency stop, if necessary. This is usually around 4 - 6 weeks after your procedure. Please be aware that long periods sitting in a car can cause back muscle spasm and pain.

Will it work?

The main aim of lumbar fusion surgery is to improve your leg and back pain. The success rate varies. It will often improve your ability to walk for longer. Around 60 to 70% of patients who have a lumbar fusion are satisfied with the amount of relief they achieve. Leg pain will often improve more than back pain.