

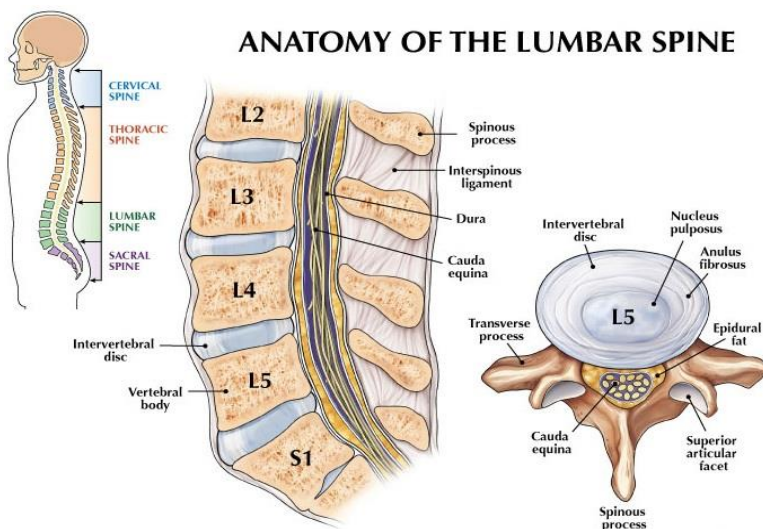


# LUMBAR INTERBODY FUSION

(Incorporating PLIF, TLIF and MIS TLIF)

This surgery is indicated in those patients who have symptoms related to nerve root compression caused by narrowing of the central canal by ligament, disc material or bone as well as evidence of instability of the spine e.g. spondylolisthesis.

The surgery aims to remove the cause of compression on the nerve roots and then stabilise the spine by inserting screws and rods (a fusion). The most common symptoms are: leg pain (one or both), pins and needles/numbness, weakness, bowel or bladder disturbance and back pain.



## REASONS FOR SURGERY

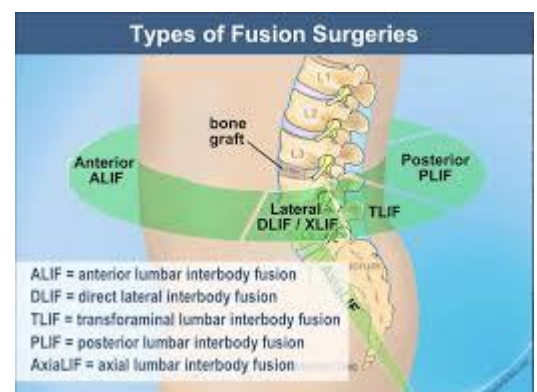
Surgery is indicated in patients whose symptoms are not settling or becoming intolerable. Generally, surgery is offered after most conservative options have failed e.g. medication, physiotherapy, spinal injections. Early surgery may be performed in patients who have worsening symptoms. The benefits of the surgery should always outweigh the risks.

Surgery aims to reduce pressure on the nerve roots and therefore relieve symptoms as well as prevent instability of the spine.

## RISKS OF SURGERY

All surgery has some risks and these vary between procedures. The risks with surgery can be related to the anaesthetic, drugs or the operation. Risks related to the anaesthetic depend on your other medical issues and to the medications used. Generally, surgery is safe and major complications are uncommon. The chance of a minor complication is around 3 or 4%, and the risk of a major complication is 1 or 2%. Over 90% of patients should come through their surgery without complications.

The risks involved with posterior lumbar fusion surgery, include: bleeding; infection; nerve root injury – weakness, numbness, altered bowel/bladder/sexual function; spinal fluid leak, persistent or recurrent symptoms, general surgical problems – anaesthetic complications, chest infection, heart problems, clots in the legs/lungs, scar formation, failure of fusion of hardware and death



## PROCEDURE

You will be given a general anaesthetic so you are asleep throughout the procedure. The surgery is performed with microscopic magnification. There are several approaches for accessing the disc space for a fusion is through an incision in the low back in a posterior approach: a posterior lumbar interbody fusion (PLIF), or a transforaminal interbody fusion (TLIF), XLIF (extreme Lateral Interbody Fusion) is an approach to spinal fusion in which the surgeon accesses the intervertebral disc space and fuses the lumbar spine (low back) using a surgical approach from the side (lateral) rather than from the front (anterior) or the back (posterior). An incision is made in the centre of the back and the muscles divided from the bone on both sides.

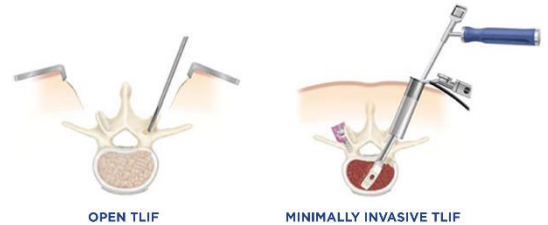
An X-ray is performed to ensure the correct level. The bone along the back of the spinal cord is removed with a high-speed drill. The ligament compressing the nerve roots is also removed.

The fusion procedure may be one of two types:

- Pedicle screw fusion - screws are placed into the bone on each side at the affected levels and joined by rods to provide strength.
- Intervertebral fusion – the disc material between the vertebrae is removed and an interbody cage and bone graft put in its place. This is usually combined with pedicle screws.

The bone that is removed from the site of surgery is used as bone graft to supplement the fusion. Occasionally if there is not enough bone graft, a substitute will be used as well.

At the end of the procedure, the anaesthetic is reversed and you are woken up and taken to the recovery room. X-rays are performed the following day to ensure adequate placement of the hardware.



## DISCHARGE

Most patients go home 5-7 days after surgery. You will be reviewed by the physiotherapist to determine suitability for discharge. You must also be able to eat, drink and go to the bathroom prior to discharge. The pain should be easily controlled with pain tablets. You should discuss with your neurosurgeon when to resume any blood thinning medications which have been stopped for the surgery. In some cases, it is necessary to have some rehabilitation before going home. This will be organised during your hospital stay.

You should continue with regular gentle exercise on discharge as well as any exercises given to you by the physiotherapist. You should avoid activities such as heavy lifting, moving objects, bending or twisting, prolonged sitting or standing. You should not swim for 3 weeks after surgery.

You may drive when you are no longer taking narcotic pain pills. Limit driving to short trips and slowly increase your driving time. You may need to make plans to be off 4-6 weeks depending on the work you do. Heavy lifting may not be allowed for 12 weeks.

## WOUND CARE

The wound will be closed with dissolving stitches and reinforced with sticky paper strips. The wound must stay covered for 1 week and the dressing changed each day after showering. After one week, the dressing may be removed and left off. The paper strips will fall off over 1-2 weeks.

Your wound will be healed within two weeks from your surgery unless there has been some reason to delay that healing. In addition people that have other medical problems such as: diabetes, people who need to take daily steroids for other conditions, and those people whose immune system may be compromised, may need additional time for their wounds to completely heal.

If there is any redness, tenderness, swelling or discharge of the wound, you should see your family doctor immediately.

## FOLLOW-UP

You will need to be seen again by your neurosurgeon 6 weeks after surgery. X-ray imaging is performed at set intervals after the surgery to ensure adequate fusion is taking place