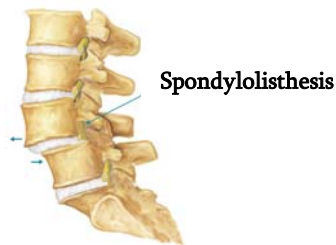


## POSTERIOR LUMBAR DECOMPRESSION AND FUSION

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
- ✧ 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 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
- ✧ death
- ✧ failure of fusion of hardware

### PROCEDURE

You will be given a general anaesthetic so you are asleep throughout the procedure. The surgery is performed with microscopic magnification. 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.



***Interbody 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 tablet pain killers. You should discuss with Dr McMaster 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

### 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.

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 Dr McMaster 6 weeks after surgery. X-ray imaging is performed at set intervals after the surgery to ensure adequate fusion is taking place.