

## Lumbar Fusion

The mainstay of treatment for lumbar spondylolisthesis is a graded exercise program focussed on strengthening the back and abdominal muscle to help support and stabilise the spine. Simple analgesia and anti-inflammatories are also prescribed. The use of back braces or supports is sometimes advocated but may lead to weakening of the truncal muscles. Occasionally a guided injection of steroids or analgesia directly around the affected nerve root will be performed to good effect. Surgery is indicated if there is no resolution of symptoms or worsening of neurological function.

### OPERATION

In general, surgery aims to relieve pressure on the nerve roots and cauda equina that are compressed or stretched from the slippage. A lumbar laminectomy may be offered for this which involves decompression of the neural structures by removal of the bony spinous process, lamina and soft tissue. If the lumbar spine is considered unstable due to the spondylolisthesis a fusion operation will be offered. This will involve using titanium screws and connecting rods to fixate the adjacent vertebral levels with or without a discectomy and 'cage' fusion. Your surgeon will discuss the surgical options with you for your individual scenario.



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A lumbar fusion is also performed in cases of acute spinal fractures requiring stabilisation or spinal tumours whereby the integrity of the spine has been compromised.

### Risks of the procedure:

The risks of this operation includes the following. A detailed discussion with your surgeon is recommended prior to surgery.

- Infection: may be superficial or deep. This may require removal of the screws and rods.
- Bleeding: may be superficial bruising or a deeper collection.
- Damage to the spinal nerves resulting in weakness, numbness or tingling.
- Damage to the covering of the nerves and spinal cord (thecal sac) which could result in a leakage of spinal fluid from that sac and is usually repaired at the time of surgery.
- Persistence of preoperative symptoms, in particular back pain, leg pain and/or numbness.
- Recurrence of symptoms at a later date due to a recurrent disc prolapse or recurrence of symptoms to a lesser degree secondary to scar tissue.
- Blindness: extremely rare and thought to be secondary to hypotension.
- Failure of fusion to occur - causing further instability and pain.
- Instrument failure or movement requiring repositioning.
- Pain and swelling at the bone donor site.

### Long term effects:

It will be important to continue the truncal strengthening exercises following your operation as well as protecting your back from further stress with simple measures as bending knees to lift and not lifting more than 20kg at one time. You should expect leg pain to improve after the operation. Any numbness or weakness will take longer to improve and if there is permanent damage to the nerve root from the slippage this may not fully resolve. Back pain, if present preoperatively may improve when fusion occurs but may take 6 to 9 months.