MELBOURNE NEUROSURGERY

SURGICAL PROCEDURE
INFORMATION

Prepared
For

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LUMBAR LAMINECTOMY with DISCECTOMY

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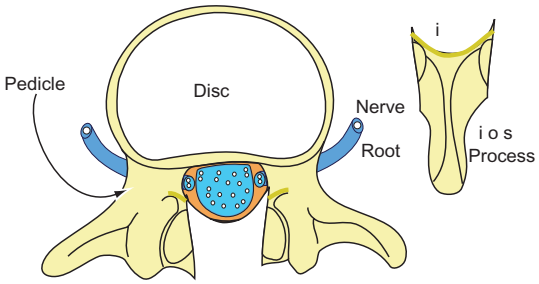
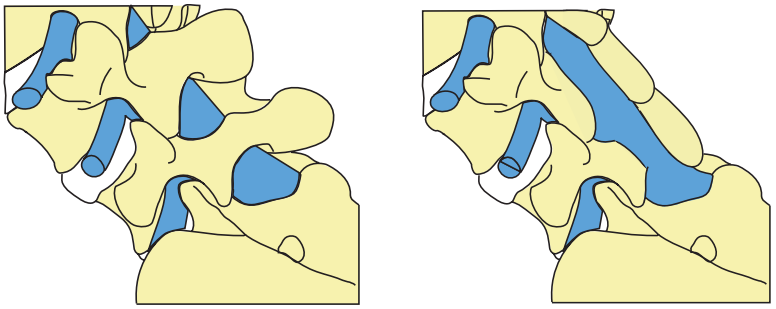
WHAT IS A LAMINECTOMY ?

A Lumbar Laminectomy is where the Lamina and sometimes part of the Facet Joints are removed to allow room for the Lumbar nerves. They are usually compressed because of a degenerative process in the back.



Sectionof spine showing removed bone (spinous process and lamina)



The spine from behind before and after bone removal

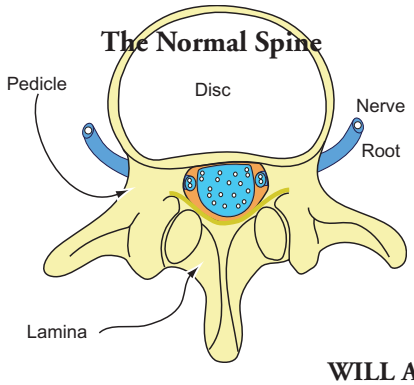
WHAT IS A DISCECTOMY ?

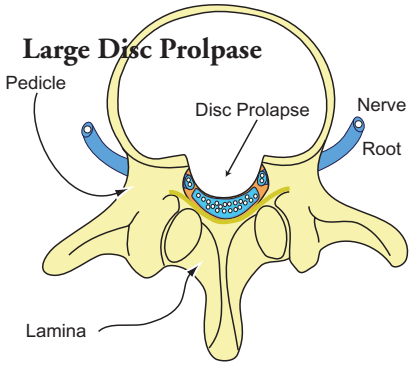
A Discectomy is where a prolapsed disc fragment is removed through an incision in your back. Usually not only is the prolapsed fragment removed but the rest of the damaged part of the disc is also removed to prevent a further prolapse occurring.

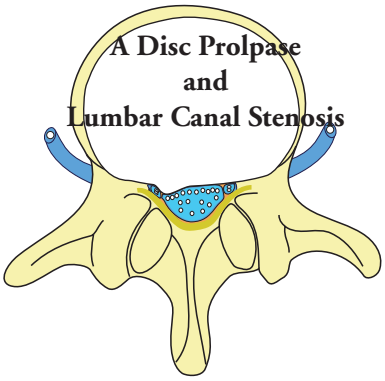
WHAT ARE THE REASONS FOR HAVING A LAMINECTOMY AND DISCECTOMY ?

The common reason is because you are suffering from leg pain (called SCIATICA) you may also have numbness or weakness in your leg/s. The aim of the surgery is to relieve the compression on your nerve and in doing so hopefully remove the pain in your leg.
Some times the surgery is done to try to improve any weakness or numbness that you may have in your leg.
If you are having surgery it usually means that the symptoms have not gone away with other therapies such as physiotherapy, rest, anti-inflammatories, nerve root blocks or epidurals. Most patients do get better with time but up to 15% may need surgery if the prolapse does not resolve A Discectomy is not normally performed for back pain alone as this generally does not improve with this type of surgery. You may be having a laminectomy prior to the discectomy for a number of reasons.

1. The most common is that the disc prolapse is so large that it cannot be safely removed by a Micro-discectomy approach.
2. The spinal canal may be very narrow prior to the disc prolapse and there is not enough room for the removal of the disc safely.
3. You have symptoms not only from the disc prolapse but also from the narrow canal and both need to be dealt with.







WILL ALL YOUR SYMPTOMS GET BETTER WITH SURGERY ?

This depends on the patient. Most will get substantially better and some will get complete resolution. This may depend on the amount of damage done to the nerves from the compression. Typically your leg pain is the first to improve. The muscle strength will then get better next but any thinning of the muscle may not improve. The strength does not always return back to normal. Numbness should improve but may not. It may take 9 months for this to be evident. Some patients will get increased low back pain after the surgery. Chronic pain may not improve.

WILL YOU GET BACK TO NORMAL ?

Again this depends on the patient. Some will and some will not. The aim is to make a substantial improvement in your symptoms but some patients see no change at all. Not all your symptoms may be able to be treated with surgery and it may be that the laminectomy/discectomy is only planned to treat part of your problems. In some patients who have very severe numbness in the legs the release of the pressure on the nerves may cause them to wake up to produce a burning sensation that may last for many months (this can usually be helped with some medications).

COULD YOU NEED FURTHER SURGERY ?

The spine is in a continual process of degeneration and the same surgery at the existing level may need to be repeated if you develop recurrent compression, prolpse or scarring around the nerve. Some patients may need more extensive surgery such as a fusion. It is not unusual to need surgery at an adjacent level in the future. Some patients will develop failure of the spine at the level of the laminectomy and need a fusion in the future.

WILL THE SURGERY ALWAYS BE DONE AS DESCRIBED PRE-OPERATION ?

Some times while the surgery is being performed it may be felt that to get adequate control of the situation or to prevent further deterioration in the future that a different type of procedure may need to be performed. This may just be a further extension of the existing procedure or a much more involved procedure such as a spinal fusion. A smaller procedure may be done to reduce the risk of a later deterioration or because the operative findings are not as bad as suggested by your imaging.

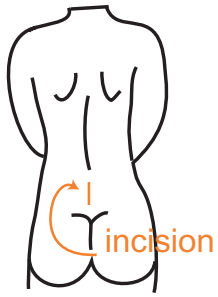
WHAT WILL HAPPEN IF YOU DO NOT HAVE THE PLANNED SURGERY ?

Generally the longer that you wait the more likely you are to get better so you may improve enough to not need the surgery. For some patients with a disc prolapse the need for surgery is inevitable.
If the prolapse enlarges you may find that the symptoms of pain, numbness or weakness get worse
If the compression worsens you may find that the symptoms of pain, numbness or weakness get worse.
If the compression gets really severe you may develop compression of all the nerves to your bladder and bowel as well as the nerves to your legs. This produces paraplegia and loss of control of the bowel and bladder and is called a Cauda Equina syndrome and needs to be treated as an emergency.

Sometimes if the compression to the nerves is left too long before decompression it reduces the chances of a complete or any improvement following surgery.

WHAT YOU NEED TO TELL THE DOCTOR BEFORE SURGERY ?

If you have clotting problems.
Any recent new Health problems or heart disease.
If you are taking blood thinning agents.
e.g. Warfarin / aspirin/anti- inflammatory
If you have improved from the time you decided to have surgery.
Drug allergy
Any thing that you think is important for the doctor to know in making his decision to offer you surgery.

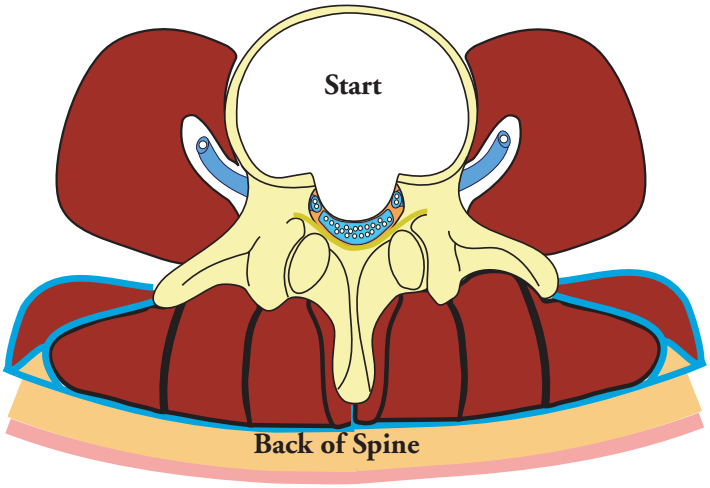


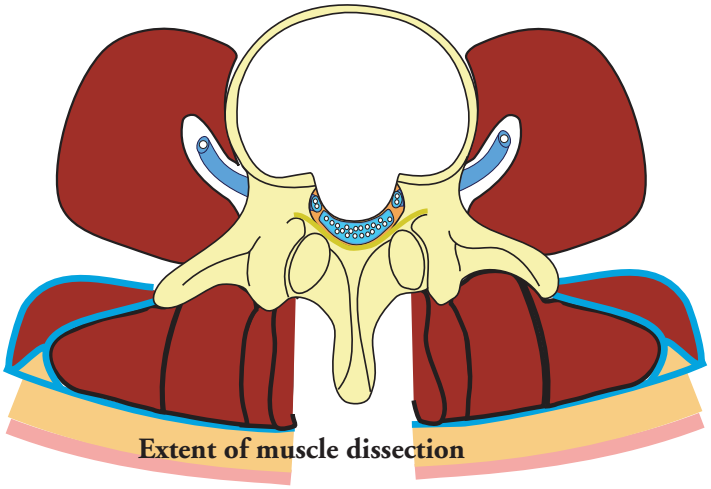
HOW LONG WILL YOU BE IN HOSPITAL ?

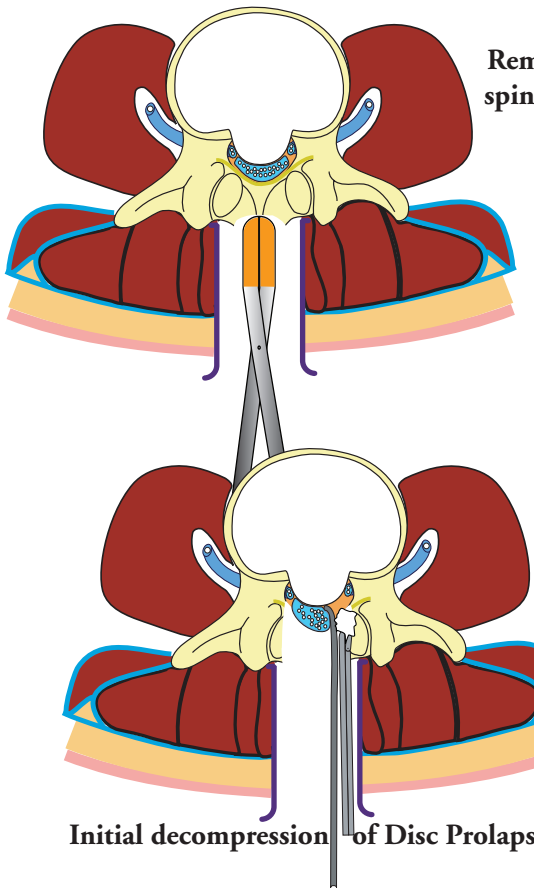
You may be admitted on the day of surgery or the day before. You will fast from midnight on the day of surgery.
You will be discharged about 2- 3 days post-operatively.
On discharge you will be able to perform most tasks of daily living (e.g. showering/dressing/etc.)

HOW IS IT PERFORMED?

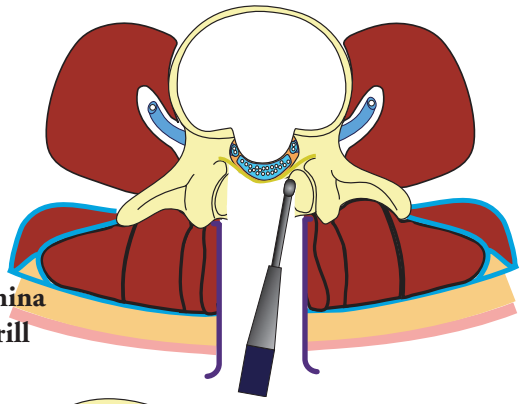
The surgery is performed in a hospital by a surgeon and he will most likely have a surgical assistant.
In the operating theatre you are given a general anaesthetic by the anaesthetist (an indwelling catheter to the bladder may be needed) and then positioned face down on a special frame. A small incision is marked out and the area prepared with antiseptic. You are covered in drapes so that only the incision can be seen.
A cut is made through the skin down to the spinous process. The muscle is dissected from the lamina / spinous process and facet joints and the retractor is used to hold this out of the way. The level is usually but not always checked with X-ray.
Using a bone punch the bone of the spinous process is removed. Using a special bone drill the lamina and part of the facet joint may be removed. This leaves the yellow ligament which is removed to expose the dura and the compressed nerve. The procedure may be needed on one or more levels. Special attention is given to the nerves to make sure all pressure is removed. The openings under the facet joints that let the nerves out of the spine are checked and opened up if necessary. The nerve or dura is gently moved out of the way and the prolapse is removed. This gives more space to allow the removal as much as possible of the remaining disc. Commonly if the prolapse is large we need to decompress both sides and clear the disc fragments and disc space.
Once this has been done all bleeding is stopped and a small piece of fat is placed behind each nerve to act as a cushion. The layers are then all sewn back to their normal positions. The skin may be closed with a nylon removable suture or with a dissolvable suture.



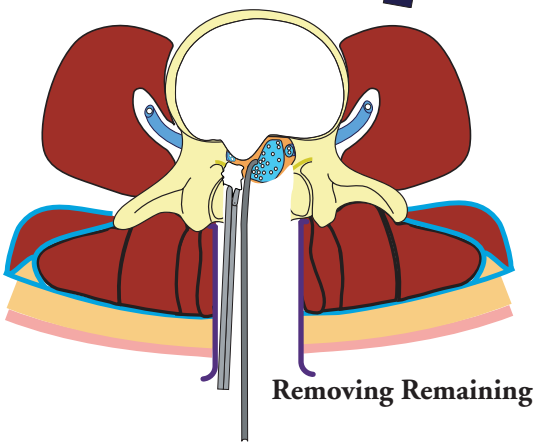




Removal of the spinous process



Removal of the Lamina with high speed drill



Removing Remaining Disc Prolapse

Initial decompression of Disc Prolapse

WHAT HAPPENS NEXT?

You will wake up in recovery and after about 1 hour you will be transferred to the ward. The nursing staff will be continually checking your pulse/blood pressure/and leg strengths looking for any changes to indicate a complication. During the first night on the ward you will be woken for these observations. You will have intravenous analgesia that you will control by pushing a button (this will be explained pre-op). Sometimes you will have difficulty passing water and you may require a catheter passed into your bladder. The catheter may be placed while you are asleep prior to starting the surgery.

The next day the drip in your arm will be removed after your first walk and then you will be given regular pain medication by mouth. Gradually over these next two days you will be able to get around as normal. When you are comfortable you will be able to go home. Some patients are not able to go directly home and will require either inpatient rehabilitation or to go home with a relative if you live alone.

It is important after the operation to walk as much as possible. Prolonged rest in bed can produce hip pain and clots in the legs.

Sometimes a couple of days after the operation the discomfort in your leg may return, this is due to swelling and usually settles with anti-inflammatory tablets.

If you have removable sutures then they are removed between 5 and 10 days.

WHAT YOU SHOULD NOTIFY YOUR DOCTOR OF AFTER SURGERY?

Weakness in the legs
Difficulty passing your urine
Abdominal pain
Increasing leg pain or numbness
Fever
Increasing back pain
Swelling or infection in the wound.

WHAT HAPPENS WHEN YOU GO HOME?

(See the postoperative leaflet for more information)

You will be able to do most things.
You should avoid Heavy lifting
Twisting
Prolonged sitting
You will not be able to drive for 3 to 6 weeks
You should be able to return to some sort of work between 4 to 6 weeks.
It is important to walk as much as is comfortable.
If you smoke it is best to try to give this up.
If you are overweight then loss of weight is important

WHAT ARE THE RISKS?
Discuss these and others with your surgeon

Some of the possible complications are:

Infection (treated with antibiotics)
Damage to the nerve that is compressed
This may cause weakness, numbness and/or chronic pain
Damage to the dural sac containing the nerves and producing a fluid leak
Stops with bed rest but may need surgery to repair
Damage to structures in front of the disc
Bowel / ureter (tube from the kidney to the bladder) / Aorta (major blood vessel)
Post operative blood clot requiring drainage.
Wound breakdown or scarring
Paraplegia +/- loss of bowel and bladder function (very rare)
Impotence
Surgery on the wrong levels
Blindness
Death
Recurrent Disc prolapse at the level of surgery
Symptoms may be made worse
Further surgery may be required
Blood transfusion
Medical complications not related directly to the surgery
e.g. Clot in the legs (can travel to the lungs [uncommon])
Pneumonia
Heart attack
Urine infection
Kidney failure
Stroke
Drip or catheter infection

WHAT ARE THE COSTS OF THE SURGERY?
Discuss this with your surgeon

There are out of pocket costs for the surgery above the amount you will get back from your health fund. It is important to discuss this with your doctor and to contact your fund to understand not only the cost of the surgeon but also the costs of the hospital admission and other people involved. The assistant will send an account for 20% of the value of the surgeons' fee.
If you have no health insurance and wish to have the surgery privately then you should discuss with the office staff to organize an estimate.

YOU WILL BE ASKED TO SIGN A CONSENT FORM TO SAY THAT YOU UNDERSTAND ANY RISKS.
IF YOU ARE NOT SURE ASK BEFORE YOU SIGN.
If you feel that you need a second opinion we recommend that you ask your local doctor to arrange an independent opinion for you.

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