Microdisectomy

A Guide for Patients

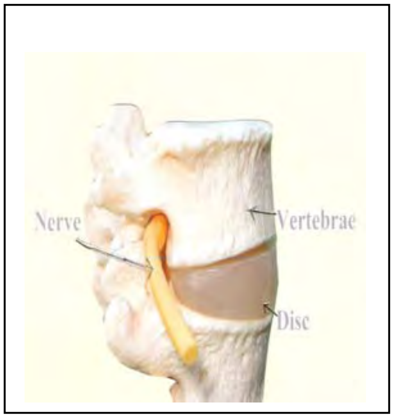
Introduction

What is a disc prolapse and sciatica?

Simple "wear and tear" or the effects of aging can weaken a disc over time contributing to a disc bulge or prolapse. The disc's soft centre can begin to bulge and may pinch or irritate a nerve.

You may feel pain, burning, tingling or numbness. If there is pressure on a nerve that connects to the sciatic nerve, you may feel these symptoms in your leg and this is commonly referred to as 'sciatica'. The sciatic nerve runs all the way from your back to your foot and hence the leg and foot pain.

Although a disc prolapse can affect any disc in the spine, most disc prolapses occur in the bottom two discs of the lumbar spine.



Photographs courtesy of C.P.Davies (2007).

What are the alternatives to a microdiscectomy?

In general, if a patient's leg pain due to a disc prolapse is going to get better, it will do so in about six to eight weeks. As long as the pain is tolerable and the patient can function adequately, it is usually advisable to postpone back surgery for a short period of time to see if the pain will resolve with conservative (non-surgical) treatment alone.

Initially, activity modification and medication to relieve pain and diminish the inflammation may help. Although a brief period of rest may help, most studies indicate light activity should be undertaken. In some cases, weight loss may help.

If there is a lot of pain which is not relieved by pain medication you can have a steroid epidural injection or a nerve root injection in your spine.

It is when the above do not relieve the symptoms that surgery is considered.

What is a microdiscectomy?

If the leg symptoms do not get better with conservative treatments, then microdiscectomy surgery is a reasonable option to relieve pressure on the nerve root and speed the healing.

Microdiscectomy spine surgery is typically recommended for patients who have experienced leg pain for at least six weeks and have not found sufficient pain relief with conservative treatment.

Lumbar microdiscectomy is an operation performed on the lumbar spine using a surgical microscope and microsurgical techniques. A microdiscectomy requires only a small incision (approximately 1 and a half inches long) and this means more of your skin and muscles stay intact which helps you to heal faster. The recovery time for this particular surgery is usually much less than is required for traditional lumbar surgery.

The aim of surgery is to:

- Relieve leg pain and tingling from the hip down to the foot.
- Help the leg numbness to recover
- Allows leg strength to improve.

During a microdiscectomy part of the disc which has prolapsed and pressing on the nerve is removed. It is the discs outer wall and soft centre, which is taken away. Any disc matter that is loose or may cause problems in the future is also taken out. There is usually enough disc remaining to cushion the vertebrae (back bone).

How can you help to make the operation a success ?

Medication

Let your surgeon and pre-op assessment nurse know if you are on **Warfarin, Clopidogrel or Aspirin**. These will need to be stopped before surgery and you will be advised on this when you attend the pre-op assessment clinic. It is advisable to stop any anti-inflammatory pain killers (brufen, voltarol etc) before the operation.

Lifestyle

Being overweight increases the risks of complications from surgery and losing weight will reduce the chances of such complications.
There is sound evidence that smoking damages the discs in the spine. This is a good time to stop smoking and doing so several weeks before surgery also reduces your chances of getting complications from the anaesthesia.
We can refer you to the smoking cessation officer if you wish.

Risks of surgery

Most patients will not have complications after microdiscectomy and your surgeon and the healthcare team will try to make your surgery as safe as possible. However there is always a small element of risk involved with any type of surgery. Some of these can be serious and life threatening. Clinical studies and experience indicates that these risks are low. Your surgeon will be able to tell you what the risks of any of these complications are in your case and feel free to ask any questions you have about your specific risk factors.

The main complications are as follows:

- **Anaesthetic** complications ; your anaesthetist will be able to discuss the possible complications
- **General complications** of any operation which includes infection in the wound, bleeding during or after surgery, blood clots in the legs (Deep vein thrombosis) which can sometimes travel to the lungs (Embolus) and difficulty passing urine..
- **Specific complications** for this type of operation.
    - o The pain or numbness may continue even after the pinched nerve has been released. This can occur from damage to the nerve from the disc prolapse or during surgery.
    - o Weakness in one or both legs with numbness between the legs with loss of bladder / bowel control can occur from damage to the

nerves near the disc. Although this should get better with time in some patients the nerves do not return to normal.

- Infection of the disc called discitis.
- Dural tear which is a tear of the thin membrane covering the nerves. This can result in a bad headache but rarely can result in another operation.
- It is also possible that the disc will rupture again and cause symptoms. There is a 5% chance of this.

Surgery for disc prolapse is safe and effective but complications can occur. Keep in mind the impact your condition has on your way of life and carefully weigh the risks and benefits of having surgery against the risks and benefits of not having surgery before making an informed choice.

What to expect after surgery

If your main symptom is leg pain (rather than low back pain), you can expect good results from surgery. Although you should not expect to be pain-free every day, you should be able to keep the pain under control and resume a fairly normal lifestyle.

After a lumbar microdiscectomy there is an initial improvement in the leg pain followed by a gradual recovery as the tissues heal and recover. There may be some leg "aching" which occurs as the nerve attempts to heal. You also may feel some muscle spasms across your back and down your leg. If there was inflammation in the pinched nerve some pain may persist until this inflammation diminishes. Some back pain is likely to persist even after surgery. You will be given appropriate medication to control your pain.

Preparing for surgery

You will be seen in the orthopaedic assessment unit prior to your admission.
You may require the following test(s):

1. **Blood test:** necessary if you are diabetic, or take certain medications.
2. **ECG:** or heart trace test. This is nothing to be alarmed about, just a routine test, necessary if you have blood pressure or are a Smoker.
3. Your blood pressure, pulse and weight will also be recorded.
4. Nasal & Groin swabs will be taken for MRSA, this a routine procedure for all Orthopaedic elective patients.

Your visit to the orthopaedic assessment unit will give you an opportunity to discuss any problems you may have, or to ask any questions regarding your surgery and hopefully, give you a better understanding of your treatment.

What to do if you become ill, prior to your admission

Following your assessment, please contact the unit if you develop any of the following:

- A cold, chesty cough, throat infection.
- Skin problems, for example abrasion / lacerations, rashes, infections, especially on the area that is to be operated on.

Pre-assessment unit:	01384 244071
East B1:	01384 244692

What you will need to bring into hospital

Please bring night attire, toiletries etc. Loose comfortable clothing is recommended for wear during physiotherapy.

What you will not need

Ladies – please do not wear any make-up or nail varnish, (including toe nails). All jewellery must be removed prior to surgery and we advise you to leave you r jewellery at home. Wedding rings can be worn.

Admission to hospital

You will be admitted to hospital the day before, or on the day of your operation. Some or all of the following staff may see you:

- The Consultant or Doctor will ask you to sign a consent to surgery form (if you have not already done so) and mark the back (Right or Left).
- The Anaesthetist will talk to you about your anaesthetic during the operation.
- The Physiotherapist who will teach you exercises to carry out before and after your operation
- Dependent on your Consultant's wishes, a nurse will measure you for some white elasticated stockings. These are knee or thigh length and are worn during your stay in hospital to prevent blood clots forming in the legs.
- You may be given a 'pre-med' approximately 1 hour before going to surgery – usually consists of 2 small tablets – an anti-sickness and sleeping tablet to make you relaxed.
- A nurse will walk with you theatre, where you will be met by a theatre representative who will again check your details.

After your operation

Immediately after your operation:

You will be monitored frequently, a nurse will:

- Check your blood pressure, pulse and temperature.
- Your legs and feet will be monitored for colour, warmth and sensation.
- You will be asked if you have any pain – pain relief will be given orally or by injection.
- Intravenous infusion – given to replace fluids lost during fasting.
- Your wound dressing will be checked for oozing.
- Once you are recovered from the anaesthetic you may have something to eat and drink – once you are eating and drinking normally your intravenous infusion will be stopped.
- The physiotherapist may see you.
- You may be allowed out of bed the same evening if you feel comfortable, but you will require assistance from nursing staff.

Day One

- You will commence physiotherapy and the physiotherapist will teach you exercises to perform at home.
- Once the physiotherapist is happy, you may mobilize independently.
- You wound dressing will be checked for any oozing.
- Pain relief will be offered to you on a regular basis (every 4-6 hours).
- If you feel all right and the doctor and physiotherapist are happy with your progress you may go home. Occasionally an extra night in hospital is required.

Discharge

- Once home you should avoid driving, prolonged sitting, excessive lifting, and bending forward for the first four weeks.
- Arrangements will be made for you to have your wound checked in 2 weeks. The wound is stitched with absorbable suture and there are no stitches to remove.
- Your nurse discharging you will provide you with a discharge sheet for your reference, a letter for your GP, a sick note (should you require one) and any medication prescribed.
- Your follow-up appointment will be made for before discharge.

- You must ensure you arrange for an adult to escort you home – you will not be able to drive yourself.
- You must ensure you wound dressing stays clean and dry – please contact the Pre-assessment Unit/East B1 if you have any problems with your wound dressing.

When may I return to work?

You may be able to return to work to a desk job within weeks after surgery. If you do more active work, you may have to wait longer before going back.
It is advisable to take short, frequent walks each day. Ask you Consultant how long your walks should be and how often you should take them.
Do not lift any item that weighs more than 10 lbs in the first few weeks.
Always remember to move your body safely, follow a few simple rules. Whether you sit, stand or move around, the keys to moving safely are the same.

To help protect your back, following these tips

- Always try to keep your ears, shoulders and hips in line with each other.
- When you move, tighten the muscles in your stomach to support your spine.
- When you bend, bend at our hips and knees not at your waist.
- When you turn, do not twist your shoulders or waist; instead turn your whole body.

Have you any questions you wish to ask?

Would you like to write them in the box below, and then take this leaflet with you to pre-assessment to remind you of what you wanted to ask.

Further Information

For further information: Pre-assessment unit: 01384 244071
East B1: 01384 244692

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