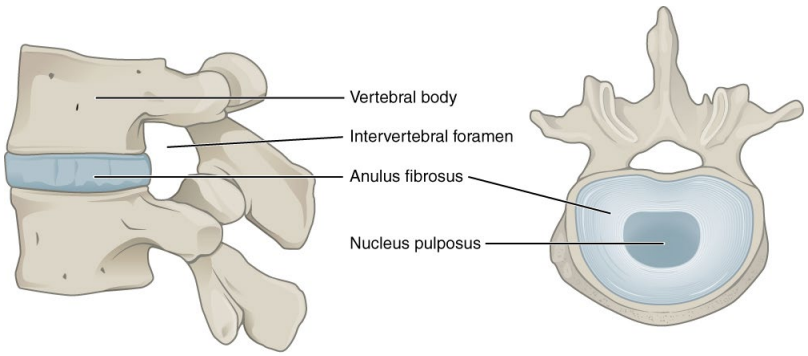
Information and exercises following lumbar disc replacement

This information is designed to help you get back to full fitness as quickly as possible after your operation. Before you leave the hospital a physiotherapist will run through all the exercises on this leaflet to ensure that you do not have any problems.

Introduction

The lumbar spine consists of the lowest five vertebrae and the discs in between. Each vertebra consists of the body at the front and a bony arch at the back which encloses and protects the spinal cord and nerves. It also has small joints which attach the vertebra to its neighbours above and below (facet joints).

The vertebral disc is made up of two parts: the annulus fibrosus (outer part) and the nucleus pulposus (inner part). The annulus consists of layers of collagen fibres (similar to the layers of an onion), the fibres in each layer lying in the opposite direction to those in the next layer. The nucleus is a semifluid gel which can be deformed without loosing volume. The intervertebral disc gives height and stability to the spine and acts as a joint and shock absorber.



Surgery and why it is needed

Degenerative disc disease occurs as the disc looses its ability to absorb water. This makes it stiffer and less able to cope with everyday stresses. The disc can then bulge outward, tear or rupture trapping the nerve and causing inflammation and pain.

A total disc replacement is designed to reduce pain by replacing the damaged disc, restoring and maintaining normal movement and by reducing the stress on the other discs and joints.

The surgery is done through a small incision in the abdomen so some abdominal discomfort is expected but also some back pain. Everybody's symptoms are different. Make sure you have adequate pain relief in order to mobilise.

If you do too much in one day and you have increased pain, then you should continue with your exercises and gentle mobilisation until the pain settles before increasing your activity again.

You will be discharged home once your pain is well controlled and you can mobilise independently and manage stairs if required. Some patients may be fit for discharge within 24 hours of their surgery and some patients may require 2-3 days before they can be discharged.

On discharge

- Avoid any lifting or prolonged bending for the first 6 weeks.
- Avoid heavy lifting for 6-12 weeks.
- Driving: you may be able to drive after about 2 weeks, if comfortable to do so and are able to do an emergency stop. You should check with your insurance company if you need permission from a doctor first.
- Work: if you have a sedentary job you may be able to go back to work 1-2 weeks after your surgery, more physical work should be left for 6 weeks. If your job involves heavy lifting this should be avoided for 6-12 weeks.
- Sports/hobbies: swimming maybe commenced at 6-8 weeks but all other sports, running, jumping, twisting or bending should be avoided until your clinic review.
- You will be referred to physiotherapy on discharge and they will offer you an appointment 2-4 weeks after your surgery.
- You will also have a review with your surgeon 6-8 weeks after your surgery.

Day 1 to discharge

Mobilising

You may mobilise the day after your surgery if comfortable to do so.

You may have been fitted with a corset which you should wear when sitting, standing or walking for the next 4 weeks, it is not necessary to wear it when lying down.

Frequent short walks are better than longer walks and you should gradually increase your distance as you feel comfortable.

The technique for getting from lying to sitting on the edge of the bed is:

1) Roll onto a side with your knees slightly bent
2) Bring your legs off the edge of the bed
3) Push up with your uppermost hand in front of you and lower elbow

Do not try to sit straight up as this will stress your back.

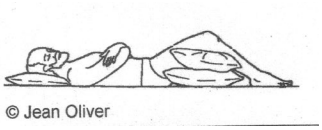
Sitting

Initially sit for meals or drinks and only for as long as you feel comfortable. Also try and sit in a chair with a reasonable back support and one that is high enough so that your knees are lower than your hips, in this position the back remains in a neutral position with less stress on the soft tissue.

You can gradually increase the length of time that you sit for as the bruising and swelling resolves.

Avoid slumping at all times.

Lying down



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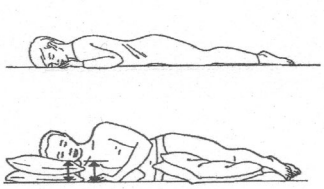
Always rest lying down rather than sitting.

You may find any of the positions shown in the pictures suitable.

- Lying on your back with a pillow under your knees.
- Lying on your front with or without a pillow under your stomach.
- Lying on your side with a towel in your waist and a pillow between your knees.



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Exercises

Transversus abdominus

This muscle is a deep support muscle for your spine. Whenever you move it contracts and stabilizes the lower spine. Your physio will teach you how to locate it.

Lie on your back with your knees bent up.

Keeping your back still, tighten your pelvic floor muscles/lower abdominal muscles. You should feel your fingers pushed out in the location where you have been shown by your physio.

Remember to keep your upper abdominal muscles and breathing relaxed.

Hold for 10 seconds if possible. Repeat 10 times.

Bent knee fall outs/obliques

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Lie on your back with your knees bent up.

Gradually and maintaining control at all times, allow one knee to 'fall' towards the bed.

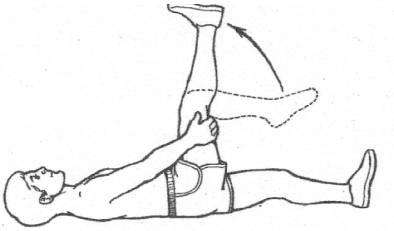
The other leg should stay still at all times.

Once you have gone as far as you can and still maintain control, gradually return to the middle.

Do the same with the other leg.

Repeat until fatigued or have managed 10 on each side.

Sciatic nerve mobilizing



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Lie on your back with your affected leg pulled towards your chest.

Keep hold of the thigh and extend the lower leg up to the ceiling until you feel a pull at the back of the thigh. Hold for a few seconds and then release. Repeat 10 times.

Once you are mobilising independently around the ward and are safe on stairs you can be discharged home. You will be referred to outpatient physiotherapy, which should be started about two – 4 weeks after discharge.

After discharge

- Gradually increase the amount of time you can sit for using a rolled up towel in your waist for support if required.
- Ensure that when you sit, your hips are higher than your knees to keep the strain on your low back to a minimum.
- Go for regular short walks, maintaining an upright posture and gradually increase the distance as you feel more comfortable.
- Do your exercises 3-4 times a day as taught in the hospital.
- Rest lying down rather than sitting if you feel tired or sore.
- You will receive a physiotherapy appointment (sometimes after 2 weeks) where your progress will be assessed and you will be advised about exercise progressions and activities.

Remember – Use your common sense and listen to your body. If it hurts, don't do it.
Making your back painful in the early stages will increase the amount of inflammation in the tissues and delay your healing, however you are unlikely to cause further damage to your back unless twisting rapidly or lifting heavy items.
Gentle exercise and mobility will aid the healing process.

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This document can be made available in other languages and formats upon request.

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