Lancashire Teaching Hospitals
NHS Foundation Trust

Information for patients and carers

Posterior Lumbar Spinal Fusion

Excellent care with compassion

Division of Surgery - Orthopaedics

@LancsHospitals

What is Spinal Fusion?

You have been advised to have an operation called Spinal Fusion**.** The Surgeon, Doctor, Specialist Nurse, or Specialist Physiotherapist who you saw in clinic will have discussed this operation with you and will have explained the risks and benefits of this procedure. The aim of this leaflet is to give you written information about the procedure, risks and benefits again. This is so you can make an informed consent to the proposed surgery, **if you have not been informed of the risks and benefits of surgery or are unsure whether to continue with surgery please contact the secretary of your surgeon and ask for an appointment to discuss the surgery further.** You should also have been informed of alternative methods of treatment.

This operation involves fusing (joining together) the small joints and bones of the spine to prevent movement of the affected area of the spine. Sometimes this also involves removing some bone, disc and soft tissue from the spine to relieve pressure on one or more nerves. Pressure on the nerve causes pain, numbness, tingling and burning sensations in the leg and foot.

This operation is performed for a number of spinal conditions including:

- Spondylolisthesis is a condition where one or more bones at the base of the spine has slipped forward causing pressure on the nerve.
- Back pain after all other treatment has failed.
- Following previous spinal surgery where more extensive surgery is required
- Instability of the spine due to weakness of the joints and muscles
- Scoliosis (curvature of the spine)
- Fractures
- Tumour

What will happen to me?

You will be asked to stop any anti-inflammatory medication, such as Ibuprofen, Diclofenac Naproxen etc and medication that may thin your blood such as Clopidogrel or Aspirin, 7-10 days before the operation. If you take Warfarin or other anti-coagulant medication this will be stopped 4-5 days before your operation. This will be discussed at your pre-operative assessment.

It is important that you stop smoking at least 48 hours before your operation. Smoking increases you risk of complications such as problems with the anaesthetic and developing blood clots. It also reduces the amount of oxygen available to the muscles and skin. There is help available for everyone who wants to give up smoking. You can access this through your GP or the Preston Smoking Cessation Service on 0845 601 2186.

On the day of the operation you will be dressed in a theatre gown and taken to theatre. Once you have been anaesthetised the surgeon will make an incision (cut) on your back. The surgeon may remove bone and/or disc from around the nerve root and spinal cord to relieve the pressure. This is often done at more than one level. Fixation with screws, rods and sometimes cages will be used to strengthen and stabilise the spine and prevent movement. Bone is packed into the small joints of the back; eventually this will heal and become solid ‘fusing’ the spine. This bone is usually removed from

your back in areas it is not needed and mixed with donor bone. When the operation is complete your back will be stitched (depending on the surgeon this may be a dissolving stitch under the skin, clips or stitches) and a dressing applied. A drain to remove excess blood and tissue fluid from the area of the operation may be inserted to reduce swelling. This is a small tube, which goes into your back near the operation site and is attached to a bottle. This stays in for up to 2 days and is removed on the ward by the nurses.

After the operation you may find that your leg pain has reduced or gone away altogether. However, for some people the pain may be worse or the sensations altered. This is due to the nerve having been moved during the operation. There may also be some slight swelling or bruising which is irritating the nerve. This should settle over time. The staff on the ward will check regularly that you can feel and move your legs normally.

You may find that you have increased pain in you back. This is due to the operation as muscles and nerves have been moved to allow access to your spine. Regular painkillers will relieve the pain and help you to move more easily in bed.

Some patients will have difficulty passing urine after the operation. Again this is due to irritation of the nerve and should resolve over time. If you cannot pass water a catheter may need to be inserted temporarily to drain the bladder.

Depending upon the surgeon's instructions you may be able to start getting out of bed the day of the operation with help. The nurse or physiotherapist will show you the best way to roll in bed. This is called log-rolling and involves you not twisting at the waist, but rolling with your spine held straight. You can bend you knees while you do this, but will progress to being able to do it independently. Whilst in bed practice moving your legs, feet and ankles. You may also be given an advice leaflet from the physiotherapist.

You should also start to practice pulling and holding your stomach muscles in to keep the strength in your abdominal muscles, which support the spine. During your stay in hospital the physiotherapist will show you how to get in and out of bed, sit and walk safely. They will also give you some simple exercises to perform. You will be discharged normally between 3 -10 days after your operation.

If required the ward staff will arrange for the sutures or clips to be removed by the practice or district nurse at 10 to 14 days after your operation.

You will be seen in the out patients department 4 – 8 weeks after your operation.

What Are the Benefits of Fusion Surgery?

Fusion for back pain has a 60- 70 % chance of significantly improving the back pain. Decompression is done is for leg pain with chances of significantly improving leg pain. Numbness and weakness may or may not improve with surgery.

After surgery 75% of people have considerable improvement in symptoms, 20% show an improvement but have some persisting symptoms. The remaining 5% are not helped at all and in some cases may be worse than before surgery.

However, there is always a chance that you will have back pain after the operation.

This type of surgery is not guaranteed to "cure" the problem and you may always have some pain, weakness and sensation changes in the leg and pain in the back, but we would normally expect your symptoms to have improved significantly.

What are the risks of fusion surgery?

General risks associated with any surgery include:

- Anaesthetic problems including death, breathing difficulties, allergies to the drugs used, heart attack, and stroke are dealt with in more detail in the leaflet; "**You and Your Anaesthetic",** which was given to you at your pre-operative assessment.
- Blood loss requiring transfusion. If bleeding does occur then you may be treated with fluids through a drip, a blood transfusion or in rare cases further surgery may be needed.
- Deep Vein Thrombosis (DVT) a blood clot in the leg veins.
- Pulmonary Embolism (PE) a blood clot in the lungs.
- Wound infection.

Specific risks to Fusion surgery include:

- No improvement in the amount of leg or back pain
- Nerve damage-you may have pain, muscle weakness and sensation changes in the leg which are as bad or worse than before the surgery
- Some patients may experience numbness or loss of sensation to the buttocks or genitalia.
- Rarely the layers around the spinal cord (dura) can be damaged (dural tear) resulting in a leak of fluid (cerebrospinal fluid). This can cause severe headaches and **may require bed rest for 2 – 5 days.** This occurs in 3-5% of cases and is more likely in patients who have already had spinal surgery previously (revision procedures).
- Bladder problems including incontinence or retention (not being able to pass water), which are usually temporary, but can rarely be permanent, requiring catheterisation.
- Very rarely impotence
- Bowel problems including constipation or incontinence
- Scarring around the nerve leading to increased pain in the future
- The bone graft may not unite (fuse) and you may need further surgery to re-graft the area.
- Screws and rods may break and you may need further surgery to repair this
- Need for further surgery in the future as you may have further problems with the same level of the spine, develop arthritis in the joints, or have problems with other levels of the spine.
- Serious complications such as paralysis or death are rare. This may happen in 1 in 400 to 500 cases per year.

What Happens After Discharge?

- It is important that you continue with the exercises shown to you by the physiotherapist.
- You may be referred for further physiotherapy treatment depending on your surgeon's post-operative management. As each patient has different levels of fitness physiotherapy programmes will vary depending on the treating physiotherapist.

- Generally most people return to clerical work at 4-6 weeks, light manual work at 6-12 weeks and heavy manual work after 12 weeks. It is advisable to discuss return to work with your employer and consider a 'phased' return to work where you may work shorter days or return on reduced duties.
- Do take regular pain relief initially to allow you to be as active as possible. Reduce these as your pain levels begin to improve.
- Stay active, rest does not improve recovery but will slow your recovery as doing less leads to stiffness and weakness.
- Don't be frightened of the pain. It is common to have some pain after surgery. Simple painkillers will not mask pain and by keeping active you will not hurt or harm yourself.
- Don't panic if pain increases. It is common to have some setbacks during recovery.
- Gradually increase your activity by walking each day. Try to do a little exercise every day.
- After the three months you can start to exercise again, gradually increasing your activities, as you feel able. If needed you will be referred for physiotherapy rehabilitation after your 3-month appointment. Avoid contact sports such as golf, rugby, judo, karate etc for the first 6 months following surgery.
- You may start to do light housework such as dusting, washing up etc, but avoid anything which involves excessive bending or lifting such as vacuuming, bed making etc for the first 6 - 8 weeks.
- Be aware of maintaining a good posture and avoid sitting for prolonged periods.
- Do not drive for the first 6 weeks. You can travel as a passenger in a car but avoid long journeys. You may resume driving when you feel you can safely do an emergency stop. You need to inform your insurance company of the fact that you have had spinal surgery.
- Avoid having a bath for the first 2-4 weeks. You may have a shower providing your wound has healed.
- After the three months you can start to exercise again, gradually increasing your activities, as you feel able. If needed you will be referred for physiotherapy rehabilitation after your 3-month appointment. Avoid contact sports such as golf, rugby, judo, karate etc for the first 6 months following surgery.

Remember you have had a major operation and recovery will take some time. You may find that you easily become tired. This is quite normal and it is advisable to take things easy when you first get home from hospital. Build up slowly and if you are having a good day try not to do too much as this may lead to you feeling more tired the day afterwards.

Orthopaedic Spinal Team 01772 522613 (please leave a message).

Royal Preston Hospital
Ward 14: 01772 522474
Ward 16: 01772 522990

Chorley Hospital
Leyland Ward: 01257 245742
Sellars Ward: 01257 245747

Sources of further information

www.lancsteachinghospitals.nhs.uk
www.patient.co.uk
European Spinal Surgeons website, information on spinal conditions & surgery - www.eurospine.org
British Association of Spinal Surgeons; Advice & information on spinal conditions & surgery - www.spinesurgeons.ac.uk

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Please ask if you would like help in understanding this information. This information can be made available in large print and in other languages.

Lancashire Teaching Hospitals is a smoke-free site

On 31 May 2017 Lancashire Teaching Hospitals became a smoke-free organisation. From that date smoking is not permitted anywhere on any of our premises, either inside or outside the buildings. Our staff will ask you about your smoking status when you come to hospital and will offer you support and advice about stopping smoking including Nicotine Replacement Therapy to help manage your symptoms of withdrawal.

If you want to stop smoking you can also contact the Quit Squad Freephone 0800 328 6297.

Cantonese:

如果你希望以另外一種格式接收該資訊，請和我們聯絡，不必猶豫。

Gujarati:

જો તમને આ માહિતી બીજી રચના કે ફોર્મેટમાં મેળવવાની ઈચ્છા હોય, તો કૃપા કરી અમારો સંપર્ક કરતા અચકાશો નહિ.

Hungarian:

Kérjük, vegye fel velünk a kapcsolatot, ha más formában kéri ezt az információt.

Polish:

Jeżeli chciał(a)by Pan/Pani otrzymać niniejsze informacje w innym formacie, prosimy o kontakt.

Punjabi:

ਜੇ ਤੁਸੀਂ ਕਿਸੇ ਹੋਰ ਫਾਰਮੈਟ ਵਿਚ ਇਹ ਜਾਣਕਾਰੀ ਲੈਣਾ ਚਾਹੁੰਦੇ ਹੋ ਤਾਂ ਸਾਡੇ ਨਾਲ ਸੰਪਰਕ ਕਰਨ ਤੋਂ ਨਾ ਝਿਜਕੋ।

Urdu:

اگر آپ اس معلومات کو کسی اور صورت میں حاصل کرنا چاہتے ہیں تو برائے مہربانی ہم سے رابطہ کرنے میں ہچکچاہٹ محسوس نہ کریں۔

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Division: Surgery
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