West Hertfordshire Hospitals NHS
NHS Trust

A guide to...

Lower Back Fusion (TLIF)

Patient information

How to contact us

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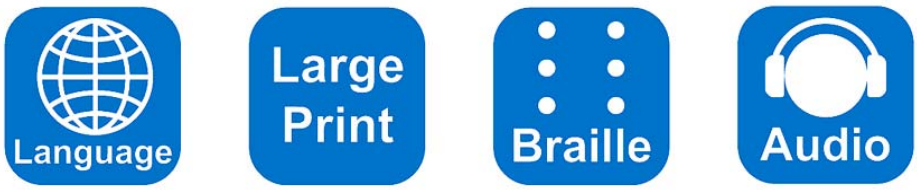

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A spinal fusion (TLIF) is an operation to stabilise an area of the spine. It can be done by a variety of ways depending upon the condition of the spine that is being treated. The aim of a spinal fusion is to 'weld' two vertebrae together to prevent painful movement. The idea is to make the body behave as if there has been a fracture, so that the two bony surfaces are joined together with new bone.

There are 3 main reasons for TLIF surgery:
1. To treat chronic mechanical spinal pain in one or more of the lower three spinal segments.
2. To treat a spondylolisthesis. In this condition the arch of one of the vertebrae weakens or fractures. This allows a deformity to occur in which the nerves become increasingly compressed.
3. When symptoms persist after previous surgical decompression or discectomy. Although the success of a TLIF with regards to achieving fusion is excellent, this operation remains uncertain with regard to clinical outcome.

Before you come into hospital
Smoking has been shown to have a bad affect on the results of fusion surgery. We, therefore, strongly advise you to stop smoking before you have your operation. If you are overweight, then please try to reduce your weight as this will lower risks and boost your recovery.

If you take anti-inflammatory tablets then you must stop taking them 7 days before your surgery.

How do we do a TLIF? - It is done under a general anaesthetic. The operation takes about 3 hours. Once asleep the patient is placed on their front on the operating table. X-ray is used to identify the correct area of the lower back. Either one or two incisions will be made, depending on what is found on the x-ray. A TLIF involves the following steps:
1. The spinal nerves are decompressed
2. The disc is removed. The disc space is filled with a spacer, called a 'cage'. Bone graft is packed in front of the cage. The bone graft used is bone that is removed as a part of the surgical approach.
3. The adjacent vertebral bodies are fixed with rods and screws.

At the end of the operation the wound(s) will be closed with dissolvable stitches and covered with dressing.

What are the risks?

Infection - The risk of infection is less than 1%. All patients receive a dose of antibiotics when they are going off to sleep. If you develop an infection it is most likely to be a superficial wound infection that will resolve with a short course of oral antibiotics. Occasionally patients develop a deep infection. This is much more serious and may require a prolonged course of antibiotics or additional surgery.

Bleeding - You will loose some blood during the operation. We would normally expect your body to be able to deal with this blood loss without needing a blood transfusion.

Deep Vein Thrombosis (DVT) - Developing blood clots in the legs (DVT) is a risk of any surgery. We minimise this risk by using thrombo-embolic deterrent stockings and mechanical pumps. These pumps squeeze your lower legs, helping the blood to circulate. They are put on when you go to sleep and stay on until you start to move around.

Nerve Injury - The spinal instrument is inserted very close to the emerging spinal nerves. In doing this there is a risk of physical damage to the nerve. This can lead to loss of nerve function with persisting pain, weakness and numbness in the territory nerve. This complication occurs in up to 5% of patients. It is possible that a nerve injury could also affect your bladder and bowel function, as well as erectile function in men. Although further surgery may be undertaken to remove or adjust an implant, the loss of function and pain from a damaged nerve may be permanent.

Dural tear - Sometimes the lining to the nerve (the dura) can be damaged causing leakage of the fluid that surrounds the nerves. Some tears are managed easily, whilst others require surgical repair. Patients who have had a tear may be asked to stay in bed for a short period of time following their operation. Occasionally a persistent leakage of spinal fluid occurs which may require further surgery.

Scar Tissue - Scar tissue can form around the nerve and can cause neurological symptoms. This is not common. We will usually try and treat this with injections rather than more surgery.

Back pain - Even if a successful fusion is achieved, it does not guarantee the relief of back pain.

What can I expect following my fusion? - When you wake up following your operation you will feel bruised in your lower back. We try and minimise this by injecting local anaesthetic around the wound. You will also be given a patient controlled morphine pump (PCA) to help with your pain relief for the first 24 hours after your operation. Some patients require a urinary catheter.

Day 1 post-op - You will be seen by a physiotherapist with the aim of getting you up on to your feet. You should continue to practice getting up.

Day 2-3 post op - Gradually increase your mobility with the aid of the physiotherapists and nursing staff. When resting, it is good to alternate between sitting and laying down. If you place a pillow between your knees then you can lie on your side.

Day 3-5 post op - Further increase your mobility. You will be discharged home when you are moving around comfortably and safely. Before you go home the nurses will explain how you need to look after your wound(s).

What next? - The post operative discomfort will take a few weeks to settle down. The wound will be closed with dissolvable stitches, so there will be no stitches that need to be taken out. Your wound will require minimal attention after discharge. Following your operation you should not take any anti-inflammatories. This is because they reduce the potential for fusion, and therefore reduce the likelihood of a successful outcome.

For the first 6-weeks - you will need to take things relatively easily. During this time you should gradually increase your walking distance. You should aim to walk twice a day. During the first 6-weeks you should limit activity to gentle walking and stretches. You must avoid any lifting. You should continue to wear hospital stockings for the first 6 weeks.

After 6-weeks - You can increase your activity level and start to do some non-impact exercise as comfort allows (swimming, cycling). You can do some light lifting but you should not lift more than 10kg until 3-months after your operation. Do not return to impact exercise for 6 months.

Returning to work - People with non-manual jobs will normally be able to return to work after 4 pending a satisfactory review. It will be 3 months before you can return to manual work.

Driving - There is no restriction with the DVLA, though there will be with your insurance company. You will need to be able to undertake an emergency stop, and be in complete control of your car at all times without being distracted by pain. If this is not the case then your insurance will not be valid.

Flying - You should not fly for 6 weeks following your surgery. You should not undertake any long haul flights for 3 months. If travelling on a long haul flight within 6 months then you should wear your hospital stockings when flying.

Follow up - You will be seen in the clinic a few weeks after your surgery to see how you are getting on, and to answer any further questions. An appointment will be made for you before you go home.