

Anterior lumbar surgery

The aim of this information sheet is to help answer some of the questions you may have about having an anterior lumbar surgery. It explains the benefits, risks and alternatives of the procedure as well as what you can expect when you come to hospital. If you have any questions or concerns, please do not hesitate to speak to a doctor or nurse caring for you.

What is anterior lumbar surgery?

Your spine is made of a number of bones called vertebrae. They are connected to one another allowing your spine to move and protecting the spinal cord and nerves. These strong interconnections are made up of intervertebral discs (which act as your spine's shock absorbing system) and facet joints (which connect the vertebrae to one another). Due to a variety of reasons, these structures can wear down and, with time, can be a cause of pain in your back and/or down your legs (sciatica). Sciatica is normally the result of pressure on your spinal nerve root by a slipped disc.

Anterior lumbar surgery is performed from the front of your spine via your abdomen (tummy). It normally allows access to the lower three lumbar discs located in the lower part of the spine.

The most commonly performed types of anterior lumbar surgery are:

- lumbar disc replacement where the disc in your spine is replaced with a metallic disc
- lumbar fusion surgery where a cage and plate is used to permanently fuse certain segments of your spine.

Sometimes a combination of both of these procedures may be used by your surgeon. The surgical scar from anterior lumbar surgery can be vertical or horizontal (normally below your belly button), depending on your surgeon's preference or the type of access required for the procedure.

Why do I need this procedure?

Your surgeon will have already discussed with you why they think this is the best procedure to help with your condition.

There are many reasons for doing anterior lumbar surgery but the most common ones are related to:

- **Lumbar disc replacement** where an anterior (front) access is required.
- **Less back pain following the operation** compared with posterior lumbar surgery. This is due to a different muscle movement during the procedure.
- **Larger fusion cage:** anterior cages are generally larger in size and can provide better stability.
- **Anterior – posterior surgery:** an operation from the front and the back of your spine may be required to stabilise your spine fully. Please refer to your surgeon for any questions.
- **Fracture, infection or tumour of your spine :** please refer to your doctor for any questions.

Based on your symptoms and the results of MRI and/or CT scans and x-rays, your surgeon will decide exactly which vertebrae need operating on.

What are the benefits – why should I have anterior lumbar surgery?

Anterior lumbar surgery is used for therapeutic purposes. The main aim of the operation is to relieve your back and leg pain (if any) by treating one or more worn segment(s) of your spine. It is not a procedure to improve chronic back pain where the cause has not been established.

It is difficult to predict how much your symptoms will improve after the operation. The majority of patients experience a 50% reduction of back pain. Sciatica should also improve by 50 to 80%.

The real benefit is the improvement in the quality of life after this procedure.

What are the risks of anterior lumbar surgery?

In general, the risks of anterior lumbar surgery relate to the anaesthetic (it will be done when you are asleep under general anaesthetic) and the procedure itself.

For more information about having an anaesthetic please see our leaflet, **Having an anaesthetic**. If you do not have a copy, please ask us for one. If you are having sedation, you will be able to discuss this with the anaesthetist before surgery and he/she will identify the best method for you.

Anterior lumbar surgery is commonly performed and is generally a safe procedure. Before recommending the operation, your surgeon will have considered that the benefits of the procedure outweigh any disadvantages. However, to make an informed decision and give your consent, you need to be aware of the possible side effects and risks/complications.

Rare complications include:

- **Infection (affects around two out of every 100 patients treated):** this can be serious if the infection gets into your spine or settles on any of the metal elements. If it occurs, you will need an intense course of antibiotics in hospital.
- **Bleeding (affects around one out of every 100 patients treated):** there are many main blood vessels that lie at front of your spine. Heavy bleeding may occur if any of these vessels are damaged during the access into your abdomen.
- **CSF leak (affects less than one out of every 100 patients treated):** occasionally the outer covering of your spinal cord (dura) may be torn causing leakage of spinal fluid (CSF). This is not serious but it can cause a dull headache for up to a week and you will need to lie flat for at least three days after the procedure.
- **Spinal nerves injury (affects around one out of every 100 patients treated):** your nerve root or cauda equina (nerves in the lower part of your spine) may be stretched, bruised or damaged as part of the procedure. This can lead to a loss of feeling or muscle weakness, or bladder/bowel dysfunction. These symptoms can be permanent.

- **Injury to bowel or bladder (affects around one out of every 100 patients treated):** although rare, it can happen at the time of surgical access.
- **Failure of union following a lumbar fusion (affects around one out of every 100 patients treated):** if this happens, you may need to have further operations. This risk increases in patients who smoke (up to seven out of 10 smokers, therefore we strongly advise that you should stop smoking before your operation.
- **Metalwork used to stabilise your vertebrae becoming loose or breaking (affects less than one out of every 100 patients treated):** it normally happens if your bones do not unite, if there is an infection or if your bone quality is poor.
- **Increased leg pain (affects around one out of every 100 patients treated):** although rare, this can sometimes happen due changes in the nerves on the front of your spine. It may take up to several weeks for it to settle down.
- **Increased back pain (affects around one out of every 100 patients treated):** although rare, this can happen if many segments in your spine are worn (especially your facet joints).
- **Blood clot in your legs or lungs (affects less than one out of every 100 patients treated):** this can happen if your mobility is restricted. In rare cases, it can cause death.

- **Retrograde ejaculation in men (affects around two out of every 100 patients treated):** this is redirection of semen to the bladder and happens as a result of the change to the nerves on the front of the spine. This does not cause impotence but causes lower sperm count.
- **Further procedure (affects around one out of every 100 patients treated):** this includes spinal injections, removal of metal elements and, in fusion procedure, extension of lumbar fusion.

Common complications:

- **Adjacent segment disease (affects around six out of every 100 patients treated over a 10-year period):** as one level your spine is made stiffer by fusing it, the levels next to it may wear down more quickly than they would normally causing pain.

Are there any alternatives?

There are other pain-relieving therapies that can help ease back pain and sciatica such as pain-relieving medicines, spinal injections and TENS (transcutaneous electrical nerve stimulation) machine. Exercise, acupuncture, yoga/pilates and relaxation therapy may also help ease back pain.

Alternatively, the operation may also be done using a posterior approach – please refer to the **Posterior lumbar fusion surgery** leaflet for further information.

How can I prepare for anterior lumbar surgery?

Please refer to the following leaflet which will provide information on how to prepare for your operation:

- **The surgical admission lounge (SAL) at Guy's Hospital**

If you do not have a copy, please ask us for one or see our website at **www.guysandstthomas.nhs.uk** (type SAL in the search box).

During your pre-assessment, you should tell your nurse about any health conditions you have, such as diabetes or bleeding disorders, and about any medicines that you may be taking, including blood-thinning and over-the-counter medicines. You may be asked to stop taking certain medicines for several days before the procedure.

If you are a woman of child-bearing age, you must tell your nurse if you could be pregnant. If unsure, you will be asked to have a pregnancy test. This is because x-rays are usually used during the procedure. They are safe for adults, but may harm your developing baby. If you are pregnant, your doctor will talk about alternatives to the procedure.

Giving my consent (permission)

We want to involve you in decisions about your care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves.

You should receive the leaflet, **Helping you decide: our consent policy**, which gives you more information. If you do not, please ask a member of staff caring for you for a copy.

What happens during the operation?

On your day of admission you will be seen by a surgeon who will mark the site of the surgery and ask you to sign the consent form. The anaesthetist may also review your fitness for surgery and finalise the planned anaesthetic regime. You will then be taken to the operating theatre.

You will lie on your back for the procedure. A catheter (a soft, thin tube) may sometimes be used to empty your bladder.

Your doctor will make an incision (cut) on your skin after the level of vertebrae requiring surgery has been confirmed. A special retractor is used to protect your bowel and large vessels while providing exposure to your spine. The appropriate disc is then removed and your doctor will decide on a disc replacement or lumbar fusion surgery, depending on the movement of the spinal segment. With a lumbar fusion procedure, a cage is secured with screws and/or a plate. With a disc replacement, metallic inserts and a plastic bearing which

allows movement are used. The skin is then closed with absorbable sutures (stitches) and local anaesthetic may sometimes be applied to the operated area to relieve pain.

The operation normally takes between three and five hours depending on the number of vertebrae involved and complexity of your spinal problem. You will need to stay in hospital for three to five days after this procedure.

If you are having an anterior – posterior procedure, you will then be positioned on your tummy. Please refer to our **Posterior lumbar fusion surgery** leaflet for further information.

Will I feel any pain?

You should expect to have some tenderness at the operation site which will last up to 72 hours. You may have more back pain initially but this will settle down with time.

The local anaesthetic should keep you relatively pain-free for a while, but it is best to take things easy for the first 24 hours.

You will also be given painkillers when staying in hospital but please let the doctors and nurses know if you are still in pain.

What happens after the procedure?

Following the operation you will be taken to the recovery department. This is where you are monitored for the initial post-operative period. You will then be transferred to an orthopaedic ward.

You are allowed to sit up after your operation as pain allows. If you have had an anterior – posterior procedure, you will need to lie on your back for up to eight hours after your operation.

The morning after the operation, you can sit up at any angle. A physiotherapist will help you walk, depending on your pain and confidence. You will only be allowed to move around by yourself when the physiotherapist feels it is safe for you to do so. You will also be shown some simple exercises that you can do when you are at home. If you have any concerns about your walking, numbness or controlling your bladder/bowel, please tell a member of staff.

The pressure dressing and suction drain (a thin tube attached to a measuring bottle that helps to remove fluids collected after an operation), if you have one, will be removed before you go home. You will be given antibiotics and blood-thinning injections after your operation to minimise the risk of infection and blood clots. You will need an x-ray of your spine before you leave hospital.

You must also have opened your bowels and comfortably have a meal without vomiting before leaving hospital. If you have abnormal abdominal symptoms like pain, bloating or vomiting, please tell a member of staff.

You will need to arrange for a responsible adult to collect you from hospital, preferably in a car. Travel on public transport is not recommended.

What do I need to do after I go home?

It is essential that you continue to take painkillers as advised after your surgery. Your pharmacist and nurse will discuss with you the management of your painkillers before you go home.

The dressing needs to be kept on until your wound is reviewed by your GP's practice nurse seven to 10 days after the procedure. Once this has happened, you can have a bath or shower as normal without the dressing. If you have any concerns about the wound, please contact your GP or the ward staff immediately.

Bending and lifting should be avoided for four to six months. You can generally get back to light work after eight to 12 weeks (check with your employer), and can do heavier work and sports after six months. You are usually safe to drive within six to eight weeks provided that you are able to do an emergency stop (please refer to your insurance provider).

When you leave hospital you may be referred for physiotherapy either at Guy's or St Thomas', or at your local hospital. Physiotherapists will teach you specific exercises to help tone and control the muscles that stabilise the lower back.

If you have been referred for physiotherapy, you should expect to have an appointment four to six weeks after your surgery date. If you are due to have physiotherapy at your local hospital and have not heard from them by this time regarding your appointment, please contact your GP.

If your pain does not settle within four to six weeks, you can either be reviewed in your scheduled outpatient appointment or you can contact your GP for advice and pain management.

What should I do if I have a problem?

Please contact your GP if you experience any of the following:

- **excruciating pain unlike your normal symptoms**
- **increasing redness, swelling or oozing around the operation site**
- **fever (temperature higher than 38.5°C)**
- **sudden weakness or numbness which is not resolving**
- **sudden loss of bowel or bladder control**
- **severe headache which is not improved with painkillers.**

Will I have a follow-up appointment?

Yes, six to eight weeks after your surgery. We will send you an appointment letter but if you have not heard from us within four weeks after leaving hospital, please contact us. At this appointment you will have an x-ray of your spine and you will be seen by a physiotherapist or a doctor, depending on your pre-operative symptoms.

Contact details

If you have any concerns about your operation, please contact the following (Mon – Fri, 9am – 5pm):

- **Mr Lucas' and Mr Ember's** secretary on **020 7188 4468**
- **Mr Lam's, Mr Fakouri's and Mr Liantis'** secretary on **020 7188 4467**

Please contact your GP or attend your local A&E department if you have any urgent medical concerns outside these hours.

Notes

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Contact us

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

t: 020 7188 8748 9am to 5pm, Monday to Friday

Patient Advice and Liaison Service (PALS)

To make comments or raise concerns about the Trust's services, please contact PALS. Ask a member of staff to direct you to the PALS office or:

t: 020 7188 8801 at St Thomas' **t:** 020 7188 8803 at Guy's **e:** pals@gstt.nhs.uk

Knowledge & Information Centre (KIC)

For more information about health conditions, support groups and local services, or to search the internet and send emails, please visit the KIC on the Ground Floor, North Wing, St Thomas' Hospital.

t: 020 7188 3416

Language Support Services

If you need an interpreter or information about your care in a different language or format, please get in touch using the following contact details.

t: 020 7188 8815 **fax:** 020 7188 5953

NHS Choices

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

w: www.nhs.uk

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