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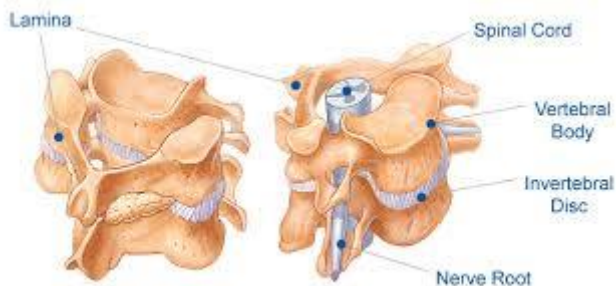
Physiotherapy Guidance for Patients Undergoing Lumbar Spine Surgery

This leaflet explains about the process of having elective Lumbar Spine Surgery. It should be read before your surgery so you can start to build good habits to help manage your pain before the operation.

It will also explain what will happen once you are in hospital and prepare you, so you know what to do after your surgery to get better.

If you have any further questions, please speak to the doctor, nurse or physiotherapist caring for you.

What is a Laminectomy and a Microdiscectomy?



Laminectomy

This operation will remove a portion of the bone from the vertebrae to release pressure on the nerves of the spine.

Micro discectomy

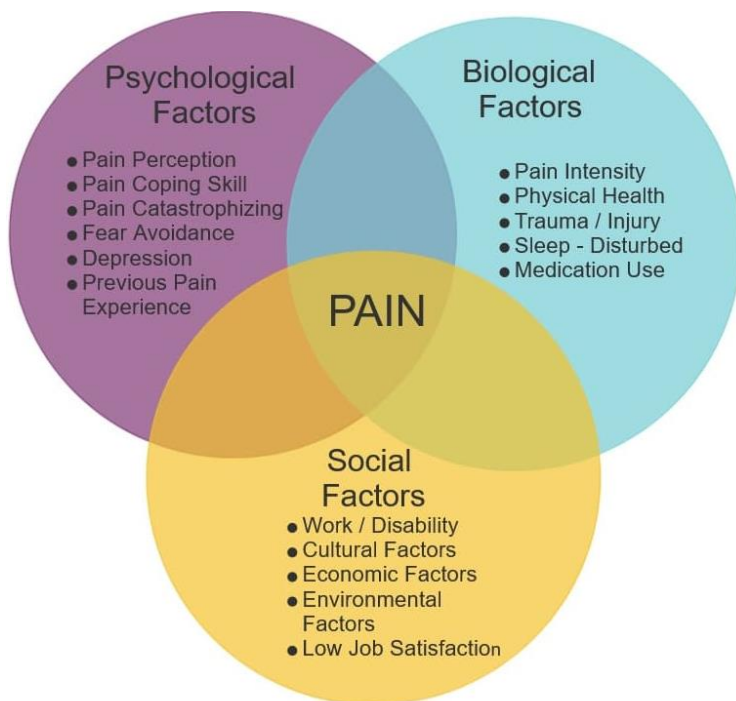
This is an operation for a disc bulge. Part of the disc is removed to free up the nerves in the spine. This mainly helps with easing the pain and discomfort experienced in the legs, although it is less likely to help with the back pain. Once the disc bulge is removed any associated leg pain may disappear immediately. However, more commonly, the relief of those symptoms, especially numbness, is more gradual, sometimes taking several weeks or months to improve.

The aim of the surgery is to relieve pressure on the nerves and prevent worsening symptoms. On rare occasions symptoms do not improve but the surgery will have still been successful at decompressing the nerves.

Understanding Pain before your Operation

Back pain can be debilitating and for some people severely affect the ability to do everyday tasks. However, it is important to try to remain as active as possible whilst waiting for your operation.

Back pain should be considered in a biopsychosocial framework, which means there are multiple factors that can influence your pain.



Whilst you are waiting for your surgery try to focus on the factors that you can change to help manage your pain.

Factors that can affect your pain

Structure

You will have been referred for surgery because your symptoms correlate with changes seen on the scan, whether that be a prolapsed disc or stenosis of the canal where the nerves exit the spinal column. This is something that the surgery will aim to correct.

Whilst you are waiting for surgery, there are lots of other factors that can influence your pain.

See below for details on other factors that you can try to change to help aid your pain.

Weight

There is an association between being overweight and lower back pain, so losing weight can have a positive effect on your pain.

Diet

Poor diet can adversely affect pain. Therefore, it is important to eat a varied balanced diet with lots of fruit and vegetables.

Poor Sleep

Poor sleep is associated with increased pain. Good sleep hygiene tips include limiting caffeine before bed, limiting screen time before sleep and trying to create a calming environment in which to sleep in.

Posture

There is no perfect posture for back pain and contrary to a lot of common beliefs posture does not have a direct effect on your pain. The best thing to do is to sit in whichever position feels most comfortable and to change position regularly.

Attitudes and Beliefs

There can be a lot of unhelpful advice in the media which promotes fear of movement and hypervigilance for back pain. This can lead to a reduction in activity which will cause your pain to increase. Remember the back is a strong robust structure that is designed to bend and lift. Try to move as normally as possible and do not fear bending or twisting actions. This will help keep your back moving which will aid pain.

Emotional Wellbeing

Living with pain can cause changes to your mood. Stress, anxiety and depression can also cause physiological changes to your body and are some of the biggest predictors for lower back pain. Acknowledging this and prioritising your mental health will have a positive effect on your pain.

Exercise

Exercise is the most important thing that you can try to change to help your back pain. Low levels of physical activity are closely associated with back pain. Exercise is one of the key factors that can help reduce pain, so it is important to try to continue with exercise. This will also help improve your cardiovascular health which will influence your overall wellbeing.

Do you meet the government's Recommendations for Exercise?

Be active

at least **150** minutes moderate intensity per week
increased breathing able to talk

OR
or a combination of both

at least **75** minutes vigorous intensity per week
breathing fast difficulty talking

Build strength
to keep muscles, bones and joints strong
on at least **2** days a week

Swim
Brisk walk
Cycle
Gym
Yoga
Carry heavy bags
Run
Stairs
Sport
Bowls
Tai Chi
Dance

Minimise sedentary time
Break up periods of inactivity

Improve balance
For older adults, to reduce the chance of frailty and falls
2 days a week

UK Chief Medical Officers' Physical Activity Guidelines 2019

What to expect in hospital after surgery

You will be expected to take an active role in your own recovery after surgery. Evidence suggests that early mobilisation after surgery leads to better outcomes.

It is the expectation that you mobilise at least on the day after your operation, although many people can mobilise on the day of their surgery.

Many people are discharged home the day after surgery. This will depend on how you are medically after the procedure and how well your pain is controlled. In general, it is better to recover at home in your own familiar environment.

Things you can do to help yourself after surgery:

- Take the prescribed pain killers
- Try to get up to use the toilet or commode, bed pans should only be used as a last resort.
- Bring your own clothes into the hospital so you can start trying to get into a normal routine as soon as possible post-surgery.
- Remember that pain does not always equal harm. It is normal to be in pain after surgery but it is still safe to try to move as normally as possible.

The team looking after you in hospital

Neurosurgeon

Your surgeon will talk you through the surgery preoperatively and will answer any questions you might have. Postoperatively, s/he will inform you if there are any restrictions that you need to follow. You will normally have a follow up in 6-12 weeks with a member of your consultant's team. An appointment will be sent to you with the details of this.

Nursing Team

The nurses on the ward will assist you with getting out of bed for the first time and will help you manage any drains or lines that you might have. They will be responsible for your pain medication, so communicate with them so your pain can be optimised. The nurses will be able to advise you about your wound.

Physiotherapy

If you have no new changes in the movement or feeling in your legs, then you will not routinely be seen by the ward physiotherapist. You are encouraged to get up and moving with the assistance of the nursing staff and the therapy technician will teach you the exercises that you need to complete post operatively.

You will be offered a follow up Outpatient Musculoskeletal physiotherapy appointment at St George's by our therapy technician within four weeks of your discharge. If you are not able to get to St George's, you can organise with your GP to be referred to your local Musculoskeletal Outpatient Physiotherapy clinic.

Occupational Therapy

Occupational Therapy helps people get back to normal daily activities. Most people do not need Occupational Therapy post this type of surgery but if indicated you will be referred to the team.

Managing Pain Post Surgery

Pain post-surgery is normal and it is important that you manage this so you can function after the operation. Remember, there are lots of factors that can influence your pain. Refer to the advice in the pre-operative section of this booklet to remind yourself of other strategies that can help.

Medication

Make sure you take the prescribed pain killers regularly. You should be able to walk after the operation, so if the pain is stopping this you will need to communicate this to the team so your pain relief can be reviewed.

Movement

The best thing to help with back pain is movement and exercise. Try to change position regularly, avoid sitting or lying in one position for too long and try to get up and walk regularly throughout the day. Ensure that you complete the exercises in this booklet to encourage mobility in the spine.

Sleep

It can be difficult to sleep after surgery, particularly in the unfamiliar hospital environment. Make sure you take pain killers before going to bed as this will ensure that you get better rest.

Flare Ups

It may be that you do have flare ups of pain at times. This is normal and it is important that you manage these in the right way. It is important that you don't get into a "boom and bust" cycle where you do too much on one day and then find that you cannot function the next. It is important that you try to complete gentle exercises daily and avoid long periods of bed rest.

Wound management

Wound Healing

It is common to get tingling, numbness, itching or pulling around the scar site as the wound heals. It can also feel hard or lumpy as the new tissue forms. Do not pull off any scabs as these are protecting the new tissue underneath. They will fall off when ready naturally.

Seek help if you experience the following symptoms:

- Increased pain around the wound.
- Redness or swelling
- Oozing of any fluid or discharge from your wound.

These are signs of infection and may need medical attention.

Stitches

Depending on the surgery you will either have absorbable or non-absorbable stitches.

Absorbable stitches will be absorbed over a few weeks. If they are under the skin, they will be covered by a sticking plaster which can be removed a few days after your surgery.

Staples and non-absorbable stitches normally come out 7-10 days after the surgery. If they are not removed before you leave hospital, you will need to get them removed at your GP practice.

You will be given a supply of dressings, which should be changed every 48 hours.

Discuss with your nurse any issues with your wound.

Showering and Bathing

Usually, you cannot get the wound wet until the stitches are removed. Waterproof dressings can be used to allow you to shower. You should avoid rubbing or soaking the wound and ensure it is gently dabbed dry after washing.

Returning to your normal activities

Normally there are no restrictions in what you can and can't do after surgery but if there are the surgeon will inform you of this. It is best to be guided by how you feel about returning to your everyday activities and to gradually increase the intensity as you feel able.

Driving

You can drive when you feel ready but avoid driving long distances straight away and you may wish to practise an emergency stop. It is best to inform your insurance company of your surgery.

Work

Your surgeon will discuss with you for how long you need to be signed off work. Generally, you can return to work when you feel ready and it will be dependent on the sort of job you have. If you have a more manual job, you should consider talking to your Occupational Health department before returning.

Alcohol

Drinking in moderation is always advised. It is always best to read the medication label, especially if you are on strong pain killers.

Smoking

Smoking and vaping can damage your health in many ways. Regarding to the surgery, smoking could have an adverse effect on wound healing. There are NHS support services in place to assist you with quitting.

Lifting

For the first few weeks after surgery, it is sensible to avoid heavy lifting to ensure that the wound is fully healed. After that it is fine to start lifting but start off with lighter loads and be guided by how you feel.

Return to Sports

If your goal is to return to sports, then discuss with your surgeon so they can advise you specifically.

Sexual Relationship

You can resume a sexual relationship when you feel ready. Unless your surgeon specifically tells you, there are no restrictions in what you can do in terms of positions or movements. It is best to be guided by what feels comfortable.

When to Seek Medical Attention

Rarely there can be complications of spinal surgery.

If you develop any of the following symptoms:

Worsening bilateral leg weakness

Worsening sensory changes

Difficulty with walking

Difficulty going to the toilet

New episodes of incontinence

New changes in sexual function

Numbness or loss of sensation around your bottom and genitals

You are advised to seek urgent medical attention as this could indicate more serious spinal pathology.

Exercises

After surgery the most important thing you can do is to try to exercise and move as normally as possible. Exercise is safe after surgery, and it will help you manage your pain and get back to functional activities.

The next section shows some specific exercises you can do in the **early stages** initially post op, in the **medium stage** as you are recovering and in **the late stages** once the back has completely healed from the surgery.

It is important to remember that general exercise is just as important. Evidence suggests that there is not one type of exercise that is superior to the other to manage back pain. The best exercise is ultimately the one that you will complete, so try to find something that you enjoy.

In the early stages this might be something as simple as walking to bathroom. In the medium stages it might be completing some gardening or walking to a coffee shop. In the late stages it might be returning to the gym and exercise classes. Everyone is different and will have different goals after the surgery, so think about what you are hoping to achieve so you can work towards this.

Early-Stage Exercises

For the first few days after the operation, it is normal to feel pain. The exercises below are designed to help you gradually start getting some mobility back in your back.

Aim to complete 15-20 repeats of each exercise and then complete three sets. It should take about 15 minutes to complete.

Try to complete them twice a day initially.

1. Knee Rocks



Lie on your back with your knees bent. Gently rock your knees from side to side.

2. Pelvic Tilts while lying



Lie on your back with your knees bent. Pull your belly button towards your spine and then roll your tailbone so it comes off the bed.

3. Bridging



Lie on your back with your knees bent.
Lift your bottom up from the bed and slowly lower back down.

4. Pelvic Tilts while sitting



Sit in the chair.
Practise straightening up as much as you can and then slump down.
The movement should come from your pelvis.

5. Lumbar Flexions



Sit in the chair.
Practise reaching forwards to your toes as far as you feel able.

General Exercise Examples:

Get out of bed to use the toilet or commode.

Try to sit out of bed in a chair.

Walk to the bathroom to have a wash.

Get dressed in your own clothes.

Medium-Stage Exercises

The pain will improve over time, and you will start to feel like you can do more. The exercises below are a progression as they focus more on general strengthening and cardiovascular fitness.

Everyone will be different; some people might be able to progress to these exercises after only a few days, whereas others might need a few weeks. You can continue with some of the early-stage mobility exercises if you find them helpful.

Aim to complete 8-12 reps of each exercise for three sets. Complete once or twice a day depending on how sedentary you are for the rest of the day.

1. Sit to Stand Practice



Sit in the chair.
Lean forwards and stand up from the chair.
Slowly sit back down.

2. Mini Squats



Stand in front of a firm surface.
Slowly squat down and then come back up.

3. Forwards Flexion



Start in standing position.
Slowly bend forwards, reaching towards your toes. Slowly come back up again.

4. Lumbar Rotations



Start in standing position.
Gently rotate your body from side to side.

5. Bridging with Leg Lift



Lie down.
Slowly lift your bottom up off the bed.
If you feel able to slowly straighten out one leg in the air.
Slowly lower down and repeat with the other leg.

General Exercise Examples:

Progress the amount you are walking and consider brisk walking to ensure you are challenging your cardiovascular system.

Cycling on a static bike

Gardening

Pilates type exercise classes

Late stage exercises

Everyone's goals are different and not everyone will feel able to complete the next set of exercises. If your goal is to return to manual jobs or to sports, then these might be helpful. If this applies to you and you want further advice, speak to the physiotherapist and your surgeon who will be able to discuss this further with you.

Remember, the back is a strong structure that is meant to move and bend. Everyone will recover at different rates and feel comfortable progressing at different times. Generally, you can start these type of exercises 4-6 weeks after the operation. It is sensible to start gradually with low weights and gradually increase this as you get stronger.

1. Weighted Squats



Stand, holding a dumbbell in each hand.
Slowly squat down and then come back up again.

2. Weighted Lunge



Stand, holding a dumbbell in each hand. Step forward with one leg and flex at the hips, knees and ankles until your front thigh is parallel to the ground. Slowly come back up.

3. Curl and Press



Stand with the weights in both hands. Keep your elbows close to your side as you bend the elbow, bringing the weights towards your shoulders. Continue this movement reaching the weights up to the ceiling in an overhead press.

4. Dumbbell Deadlift



Stand with your knees slightly bent, holding a pair of dumbbells with an overhand grip. Hinge forward at the waist and lower the dumbbells towards your shin. Contract your gluteus and hamstrings and return to a standing position.

5. Single Leg Bridge



Bend up both of your knees and then lift leg off the floor. Lift your bottom up off the floor and slowly lower down. Repeat on the other leg.

General Exercise Examples:

Walking briskly

Jogging

Cycling

Return to sports

For more information leaflets on conditions, procedures, treatments, and services offered at our hospitals, please visit www.stgeorges.nhs.uk

Additional services

Patient Advice and Liaison Service (PALS)

PALS can offer you on-the-spot advice and information when you have comments or concerns about our services or the care you have received. You can visit the PALS office between 9.30am and 4.30pm, Monday to Friday in the main corridor between Grosvenor and Lanesborough Wing (near the lift foyer).

Tel: 020 8725 2453 **Email:** pals@stgeorges.nhs.uk

NHS Choices

NHS Choices provides online information and guidance on all aspects of health and healthcare, to help you make decisions about your health. **Web:** www.nhs.uk

NHS 111

You can call 111 when you need medical help fast but it's not a 999 emergency. NHS 111 is available 24 hours a day, 365 days a year. Calls are free from landlines and mobile phones.

Tel: 111



Reference: PHY_LSS_01 **Published:** June 2023 **Review date:** June 2025