Buckinghamshire Healthcare
NHS Trust

Back Surgery

Information for patients having spinal surgery

OUTSTANDING CARE
HEALTHY COMMUNITIES
AND A GREAT PLACE TO WORK

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This information is intended to help you understand what will happen when you have your back operation and to help you with your recovery.

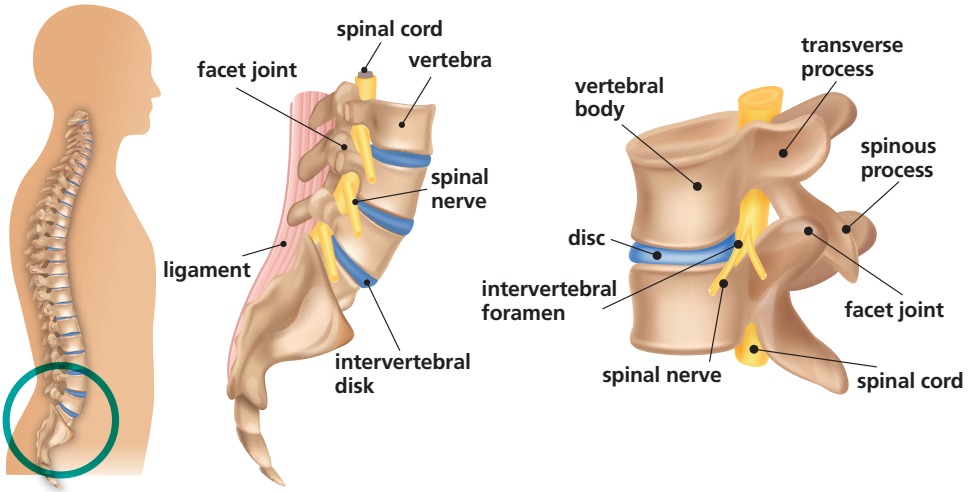
We want you to know what to expect and what you can do to recover as quickly as possible.

It has been written by different healthcare professionals including Physiotherapists, Nurses and Spinal Surgeons.

The information is of a general nature and may be different according to your individual situations. This information will answer some of the questions that you may have, but if there is anything that you and your family are not sure about then please contact your consultant or appropriate healthcare professional.

Why are you having spinal surgery?

Your spine is made up of squares of bone (vertebrae) stacked on top of each other with shock absorbers (discs) in between them. The spinal cord sits behind this, lying in a hole through the centre with nerves coming off it to your arms and legs. Joints and more bone (where muscles and ligaments attach) lie behind the spinal cord protecting it from behind.



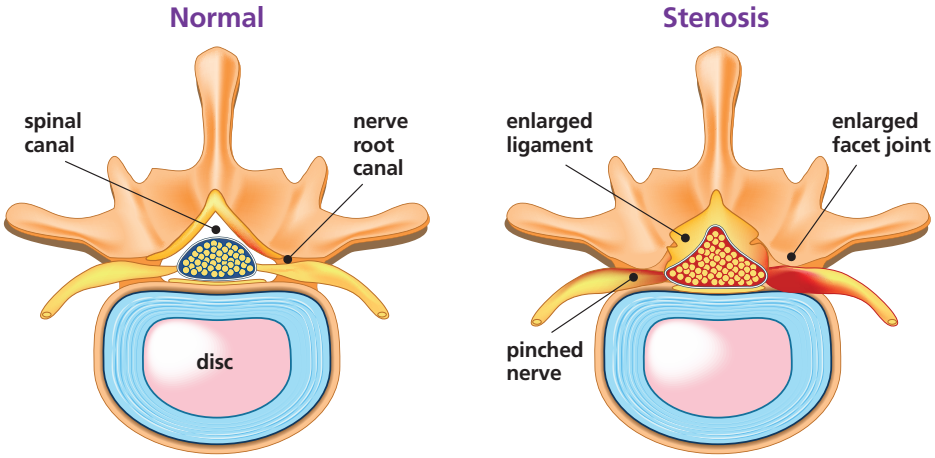
Surgical treatment is done for people whose symptoms prevent them carrying out daily activities. Operations for the lower back are usually done to release pressure on the nerves that go down your leg causing leg symptoms. These might include pain, pins and needles, numbness, heaviness or weakness, which may be different between people. All these can contribute to difficulty in walking.

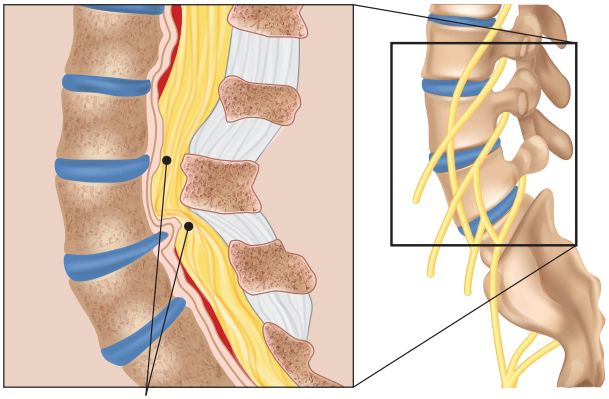
The leg pain doesn't always improve immediately after surgery but can improve over a period of time, often months, as the nerve recovers. Improvement of your back pain is more difficult to predict and is not the main aim of the surgery.

What surgery can be done?

As part of the normal ageing process soft tissues and bones in your back may harden and become thickened. Stenosis means narrowing of the exit holes for the nerves (canal or foramina) due to the thickened tissues and bones. In some people this can lead to pressure on the nerves causing leg symptoms. Most patients who have spinal stenosis have slow build up of symptoms

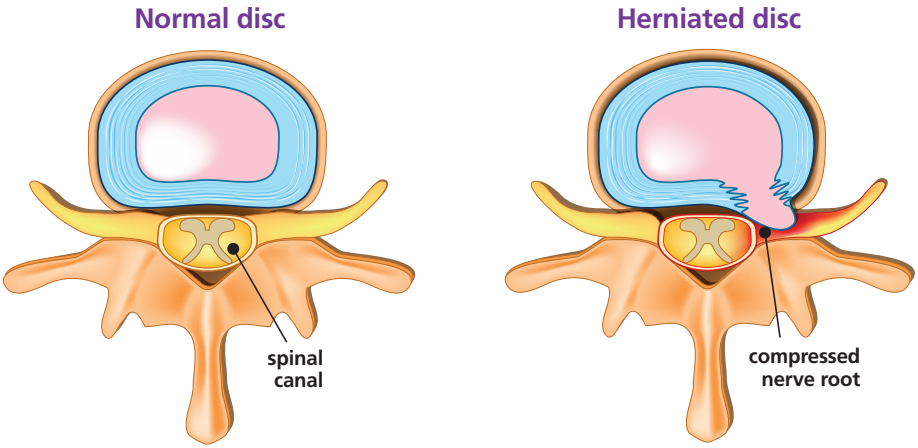
Treatment for this can involve **decompression surgery**, which is the process of making more space around a nerve by removing a small amount of bone.



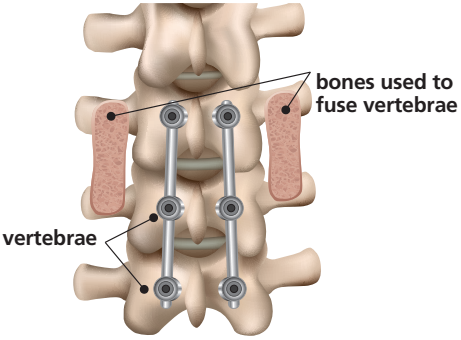


As you get older it is normal for the discs between the vertebrae to be less plump and to bulge a little. Despite the term 'slipped disc', the disc doesn't slip in and out however some of the disc material can bulge backwards and impinge on a nerve. In the vast majority of cases the body will reabsorb this material and heal itself without needing treatment.

Sometimes the bulge doesn't heal itself and can be near a nerve and large enough to push on it, causing leg symptoms. Treatment for this can involve **discectomy surgery** where the piece of disc pressing on the nerve is removed. **Microdiscectomy** involves less disturbance of the tissues as a portion of the disc is removed while using a microscope.



In some cases your surgeon may need to join the bones using a bone graft or sometimes metal screws and rods, as shown below. This is done to steady the spine and would be discussed with you prior to the operation. This is called **Decompression with Fusion**.



If you have a lumbar fusion, the exercises and advice you are given after surgery may vary slightly from if you have surgery which doesn't include metal work and screws.

Discectomy and decompression can be performed in one operation if needed.

The surgeon does not remove a whole disc or bone and there are no gaps left in the spine. Up-to-date surgical practices mean that healing takes place very quickly and once it is healed the back is as strong as ever.

The above surgeries are done under general anaesthetic (you are asleep).

What are the possible risks or complications of this surgery?

- **Deep infection** – approx. 1 in every 100 cases. You would usually be given antibiotics into a vein at the time of surgery to lessen this risk.
- **Superficial wound infections** – 4 in every 100 patients get this and may need a short course of antibiotics.
- **Bleeding** – less than 1 in every 100 patients have a major bleed, which may need treatment.
- **Durotomy** – the dura is the delicate sac that contains the spinal nerves inside the spinal canal. Occasionally, 1 in 25, this can become snagged or torn by accident during the surgery. This can usually be identified and mended at the time and would not cause any long term problems, You might have a headache for a couple of days afterwards.
- **Blood Clots** – in the deep veins of the legs or lungs. You will be given surgical stockings and pumps on your legs during surgery to reduce this risk, although we cannot eliminate it.
- **Sensory change or muscle weakness in legs** – is uncommon, approx 1 in 300 cases. When it does occur it is usually temporary but on occasion can be long-standing. Problems with nerve function in up to 31% of patients, most of these were temporary.
- **Post-op bladder or bowel dysfunction** – The risk of damage to the nerves that supply your bladder and bowel is very rare, 1 in 1000.
- **Repeat surgery** – 1 in every 100 patients have more back surgery during the ten years that follow due to continued wear and tear elsewhere in the spine.
- **Back pain** – Around 1-2 out of every 100 patients develop ongoing low back pain after spinal decompression. This can often be treated without surgery.
- **Age** – For elderly patients some risks are slightly increased. Risk of blood clots, heart attacks, urine/chest infection, and heart failure are all increased with advancing age.
- **Recurrence of Pain** – In less than 1-5 in 100 people the natural process of healing by scar tissue causes pain to return by covering nerves in too much scar tissue. This is treated by Physiotherapists and sometimes referral to the Pain Team after surgery.

- Another operation was needed in up to 6% of patients.
- Temporary damage to blood vessels, urinary tract infection, urinary retention and vertebral fracture, each in up to 1% of patients.
- Problems affecting the digestive system in up to 7% of patients.
- **Problems with metal work** – this may involve breaking of screws or rods or the bone failing to heal around the metal leading to movement of the screws. This may or may not need more surgery in the future. Problems with the cage supporting the vertebrae, or the bone graft, in up to 3% of patients.
- **Positioning during surgery** - in rare cases this can cause pressure problems, skin and nerve injuries and eye problems (very rarely blindness). Special operating tables are used to lessen these risks. Shoulder problems and upper limb nerve problems are also a risk which we aim to reduce.
- **Persistent pain** – 20-25% of patients may be better but still have ongoing leg pain.
  5% of patients may have no benefit at all.
  1% of patients may be worse in terms of pain.

Very rare but serious complications include:

- Damage to the Cauda Equina (the collection of nerves at the end of the spinal cord) resulting in paralysis or loss of bowel and bladder function. This can occur due to bleeding into the spinal canal after the surgery (a haematoma). Every effort would be made to reverse this by returning to surgery to wash out the haematoma, however recovery of the nerve damage cannot be guaranteed.
- Stroke, Heart Attack or other medical or anaesthetic problems. Please check RCOA, Royal College of Anaesthetists patient information.
  See link: **03-YourSpinal2020web.pdf (rcoa.ac.uk)**
- Extremely rare death, reported in 1 out of 250000 cases under general anaesthetic.

What you can do to prepare for the surgery?

- Stay healthy, eat a well balanced diet and try and keep your weight down
- Ask questions so you feel informed about the procedure and what you are signing on the consent form
- Make plans for your recovery at home following surgery. This may include telling your employer, ensuring you have put in a care package if you feel you will need help and that there is someone to take you home when discharged. Please ensure that you have organised meals, childcare and carers if these are needed.
- If you smoke, it is very important that you stop, or at least cut down – please speak to the pre-operative assessment department for help and advice via their 'live well stay well' campaign.

Pre-operative – before the surgery:

- Prior to admission to the hospital you will be sent an appointment for the pre-operative admission assessment unit.
- Plan for half-a-day at the clinic. A family member or another person may come with you. There is a hospital cafeteria on site for refreshments and food.
- A nurse will check whether you are fit for surgery. This involves a general check of your health, laboratory tests (blood and urine), x-rays and any other tests that may be needed.
- You will also be asked about any medication you are taking including herbal medicines. Please bring your medicines to the Pre-Operative Assessment Clinic with you, or if this if not possible bring a list of your current medication.
- Before the day of surgery if you feel that there have been any changes in your medication or health please inform the pre-operative assessment department.

What you would need to bring to the hospital?

- **Personal care items:**
  - Brush/comb
  - Toothbrush/toothpaste
  - Soap/shampoo
  - Deodorant
  - Shaving gear
  - Dressing gown, pyjamas/nightgown
  - Daytime clothes
  - Supportive slippers/shoes
  - Towel/flannel – this can be provided on the ward
  - Spectacles and hearing aids with spare batteries
- **Your current medications**
- **You may also bring small electrical items such as phones and tablets**

Please label your equipment and belongings.
The Trust does not accept liability for loss of any personal belongings.

Please DO NOT bring:

Anything of value e.g. jewellery, credit cards or more than £10.00 cash.

What will happen on the day of the surgery?

You will be advised when to stop eating and drinking prior to your surgery. Please ensure you bring your personal care items and any existing medications with you to hospital.

Your anaesthetist will assess you prior to surgery. They may ask your preference as to the type of anaesthetic you would like to have. The final decision will be made by the anaesthetist as to the type that is best for you keeping in mind:

- Your preference
- The type of operation
- Your general condition
- Any previous experiences you have had with different anaesthetics

When you arrive in the Anaesthetic Room, the theatre staff will check your notes and ask you more questions. Do not be alarmed if several people ask you the same questions!

What will happen while in hospital?

After your surgery you will be taken to the Recovery Room where a nurse will monitor your progress by:

- Checking your breathing, pulse, temperature and blood pressure
- Asking you questions about how you feel
- Asking you to take deep breaths
- Checking the circulation and sensation in your legs and feet
- Asking and assessing if you are having any pain

You will be in the Recovery Room until you are ready to return to the ward.

From the Recovery room, you will be taken to the Orthopaedic Ward to be looked after for the length of your stay. In rare occasion, you may return from theatre with a urinary catheter if this has been needed, and will usually be removed as soon as you are able to walk to the toilet. You may have intravenous fluids or a patient controlled analgesia (PCA) which provides you with pain relief through a drip until you are comfortable, but these are not commonly needed. Oxygen may be needed and given using a mask or nasal tubing.

On the ward the nurses will check your breathing, pulse, temperature and blood pressure. They will check the dressings applied to your incision and the drain, if this has been required.

If your pain is controlled, you should be able to sit up in bed and walk to the toilet with some help after your surgery. The Physiotherapist will teach you the exercises and offer advice on how to improve your mobility and get back to normal. The Physiotherapist will also make sure you are walking safely and have managed stairs (as needed). Once you are safe, you can go home. This can be on the same day as your surgery, but on occasion can be the next day.

A Pharmacist will visit the ward to check that your medication is right for your needs if you are in over 24 hours. He/she will be available to answer any questions about your medication.

What to expect after the operation?

Some people find that their leg pain goes immediately after the operation. For others it may take a few weeks to go as the nerve needs time to recover from the pressure it has had on it. The wound may be a little sore and you will be offered pain relief for this. The soreness will go in a few days.

Note: Most surgery on the back is done to improve leg pain. After the surgery you may still have some back pain.

How is the post surgery pain controlled?

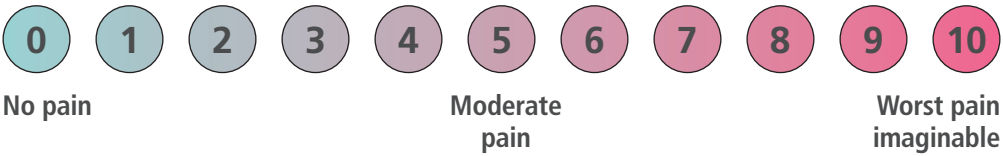
We aim to make your stay in hospital as comfortable and pain-free as possible. If there are any concerns we have a dedicated Pain Team who will visit if needed.

There are many ways of controlling pain following surgery. You may find that you will be given one or a combination of drugs and methods depending on the procedure you have had. Some pain relief are given during surgery and others after you wake up.

If you have any queries or concerns about controlling your pain, please do not hesitate to ask any member of the team. There is evidence that reducing pain and anxiety helps recovery following surgery.

During your stay in hospital you will be asked to measure your pain when you move. This is to help the nurse give you the right pain relief to control your pain. The score that is used to measure your pain is on a scale of 0 - 10 where:

0 = no pain, **10** = the worst pain you can imagine



Recovery from Day of Surgery to Discharge

	Day of Surgery	Pre-discharge to Home	Discharge Goals
Nutrition and Elimination	Nil by mouth pre-op Intravenous until oral fluids tolerated Eat light supper Sit out on commode	Eat and drink Walk to toilet Bowels opened before discharge home	Appetite returned Passing urine with no problem
Hygiene	Shower/bath pre-op Mouth care post-op	Help with hygiene care Shower with help	Fresh and comfortable
Wound Care	Observation of incision and drainage if this was required	Check if dressing is dry and intact If yes, no change of dressing needed until appointment for wound check	Healing noted
Pain Control	Intravenous analgesia (uncommon) and oral NSAID (Nonsteroidal Anti-inflammatory drugs e.g. ibuprofen)	Oral pain relief	Pain controlled
Activity and Rehabilitation	As soon as you and the nurses feel you are able to, you may walk to the toilet with assistance. Unless instructed otherwise	Sit in upright chair- dining chair in a supported chair. Sit for meals. Gradually increase sitting time for short period over a week as comfort allows For the first few weeks, until 6/52 post discharge, you should not do any repeated bending or any lifting	Mobilise comfortably
Discharge Planning	Anticipated date of discharge	Follow-up appointment organised and sent Medication TTO's (to take out) written Practice Nurse letter and TTO's (to take out) supplied Stocking instruction Helpful hints	Everything explained and understood

What exercises you can do after surgery?

Your physiotherapist will teach you the exercises below. Each exercise should be performed regularly throughout the day. You should start the exercises the day after your operation and continue them at home.

These exercises are designed to help you recover after your back surgery. They should be done slowly and gently and carried out within a comfortable range. At no point should you push exercise into a painful point. You may experience some discomfort, this is normal although if your pain increases try doing the exercises more gently with fewer repetitions. However if your pain becomes continuous, stop the exercises for a few days and gently build them back up. The pictures below are used as a guide, so you are not expected to get to the same amount of movement.

1. Ankle/quads (thighs)/glutes (buttocks)

- Bend your ankles up, then point your toes away from you.
- **Repeat 20 times.**
- Circle your ankles clockwise and anticlockwise.
- **Repeat 20 circles in each direction**.
- Also tense your upper thigh muscles hold 5 seconds and repeat 5-10 times on each leg.
- **Repeat tensing your glutes (buttocks) to hold for 5 seconds and repeat 5-10 times on each side.**

2. Pelvic tilts

- Gently roll your pelvis back to flatten your lower back against the surface you are lying on.
- Then tilt your pelvis forward to gently arch your lower back.
- Start with small movements in a comfortable range.
- **Repeat 5-10 times.**

3. Knee hugs

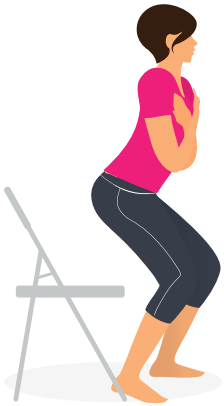
- Lie on your back with your knees bent a little.
- Gently roll hug 1 knee towards your chest.
- Don't push through any pain.
- **Repeat 5-10 times.**
- **Repeat on the other leg.**

4. Bridging

- Gently roll your pelvis back to flatten your lower back against the surface you are lying on.
- Then tilt your pelvis forward to Lift your hips off the surface gently squeezing your buttocks.
- **Repeat 5-10 times.**

5. Sit to Stand

- Practice standing up from a sitting position.
- Start by using your arms to help push you up.
- Progress to crossing your arms over your chest and using your legs to push yourself into standing.
- **Repeat 5-10 times.**



6. Step ups

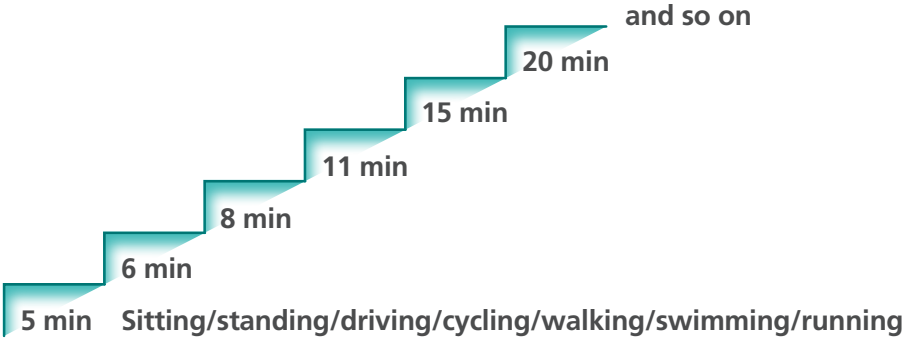
- Practice stepping up and down on to a small step.
- Keep your back straight and your bottom muscles tight.
- You may use a hand rail for stability if needed.
- **Repeat 5-10 times.**

The best exercise you can do is walking. Slowly increase the amount you do each day and see the practical tips section for advice on other exercise.

Make sure you change position regularly to avoid feeling stiff, roughly every 30 minutes.

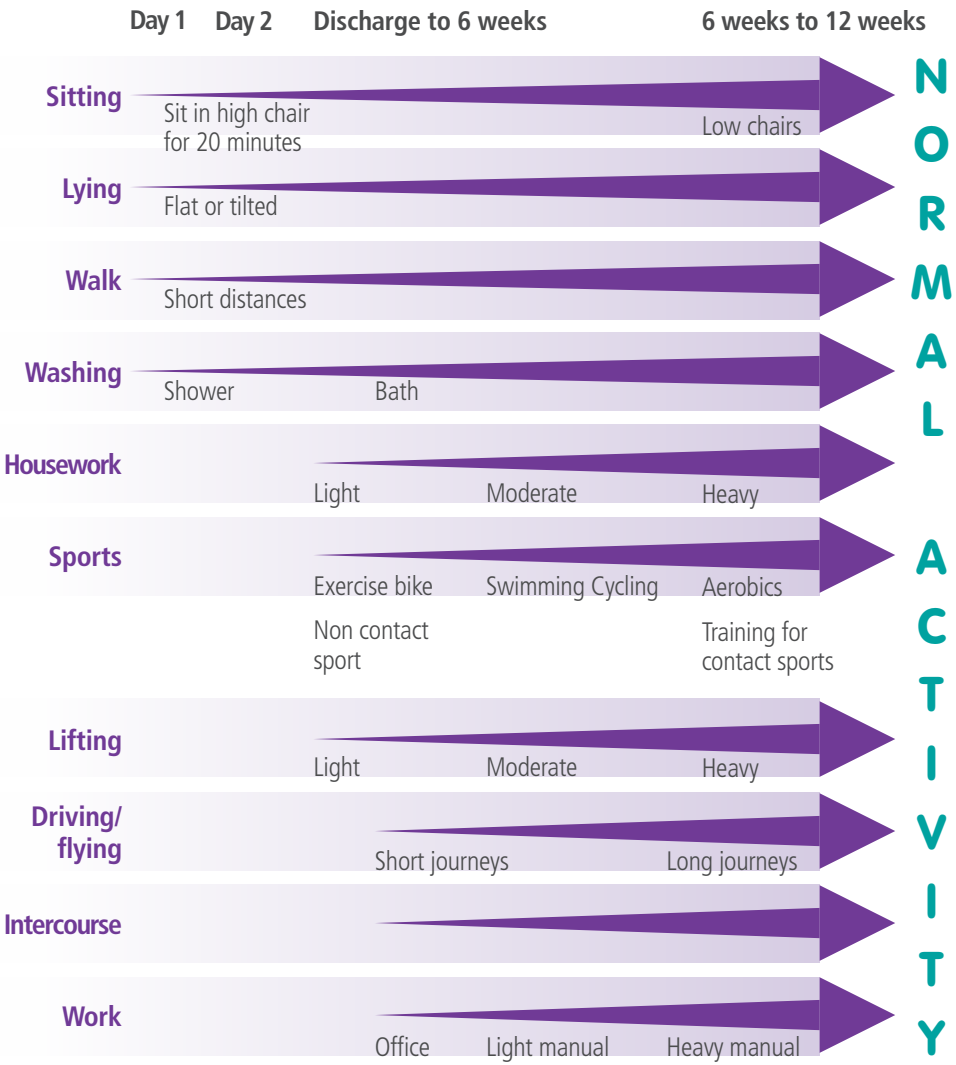
Everyone improves at different rates post operatively. It is important to do things slowly at first and build up the amount you do steadily (see chart below). Good and bad days are normal.

Build up gradually



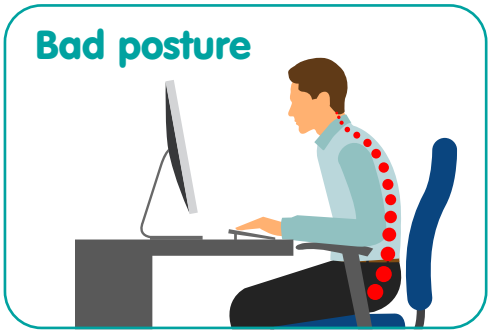
If you have had a fusion, you may still begin walking and moving about but you may find it takes you a little longer to return to normal activities.

If you had a single level Discectomy or Decompression, this is a typical timeline of return to normal activities.



What advice can help you recover well after surgery?

- **Pain:** Some pain is normal following surgery. The pain from surgery will lessen to a dull ache after 48 to 72 hours post op. Pain control is important, particularly in the first few days and weeks. It is best to take regular pain relief rather than letting pain build up, so that you feel comfortable and are able to get active.
- **Wound:** Your wound, just like any cut, may be a bit sore to begin with, but you will not do any damage by moving. The dressing will only be changed as needed. You may need to visit your GP/practice nurse for a wound check or to trim your stitches; you will be informed if this is the case. You should keep your wound clean and dry following surgery. Most dressings are shower proof but ask your nurse before you go home.
- **Lying in bed**: You can lie in whatever position you find comfortable. Although it is normal to spend short periods of time on the bed after surgery, for the first few days in particular, try not to spend long periods in the day lying down.
- **Getting out of bed:** You may find it easier in the beginning to roll onto your side, bend your hips and knees, swing your legs over the side, and push up with your hands. You can improve by getting up normally over the next few weeks.
- **Sitting:** You may find that you are more comfortable in an upright supportive chair rather than low chairs or sofas for the first couple of weeks. You can try using a lumbar roll or cushion placed in the small of your back for comfort when sitting. Make sure you change position often, changing between lying, sitting and walking to avoid feeling stiff.



- **Washing/Bathing:** You may find it easier to shower or strip wash initially. Shower or strip wash for the first few weeks (rather than using the bath) until the wound is healed and dry. Being comfortable getting in and out of the bath and sitting in the bath may take a few weeks.

- **Rest:** It is alright to rest for short periods if you need to, but try to alternate rest with gentle exercise and gradually increasing to normal activity. Go for short walks daily; **do not** spend all day lying down.

Now is the time to start thinking about how to stay fit and healthy. As a general guide you will be able to resume most normal daily activities over the first 6 weeks. It will take time to build up your fitness, strength and confidence. Between 6-12 weeks there should be another noticeable improvement in how much you can do in one go and how much you can lift, bend and carry. Return to sporting activity and high level function such as heavy manual work may resume on a gradual basis from 12 weeks onwards depending on adequate progress through the earlier stages of recovery and in discussion with your Surgeon and Physiotherapist.

The fitter you are the less likely you are to have further back problems.

You will do well if:

- ✓ You get active
- ✓ Stay positive
- ✓ Get back to work

You will do badly if:

- ✗ You sit around and rest
- ✗ Get depressed
- ✗ Stay off work
- ✗ Believe you have a permanently weak back
- ✗ Avoid movement for fear of damage

When can you restart your normal activities?

Restarting the following activities depend in part on your surgery. If you have had a fusion then the below are likely to take longer.

- **Lifting:** Heavier lifting should be avoided for the first 4-6 weeks. Lighter weights can be lifted close to your body, keeping your back as straight as possible and bending your hips and knees to make use of the thigh muscles.
- **Bending forwards:** We ask you to avoid too much bending forward for the first couple of weeks. It will be easier to bend from your knees rather than your back. You may need some help initially putting on your shoes and socks. Many people get slip-on shoes or put them on in a seated position by crossing their legs over. A shoe horn may be useful.
- **Work:** You need to get fit to return to work which means gradually increasing what you do each day. You do not need to be completely pain free to return to work. You may return to work as soon as you feel comfortable to do so, as discussed with your Surgeon.
    - If your work involves sitting at a desk you may return to work after 2-3 weeks. If you have a heavy manual job you may need longer to recover (6-12 weeks). When returning to work it is likely you'll need to slowly increase your working hours and days at work over a few weeks rather than starting back full time straight away. This is called a phased return and should be discussed with your employer's HR department or Occupational Health.
- **Driving:** As a passenger, recline the passenger seat in the car slightly to make it easier to get in and out. You will be unable to drive for at least 2-3 weeks.
    - When considering whether to drive, you have to be able to safely carry out an emergency stop, with full pressure on the brake pedal, without major back/leg pain. Break up long journeys so you can change position and move around. Check with your insurance company as they may wish to know that you have had an operation. You can ask for more advice at your outpatient appointment.
- **Sex:** There is no reason to avoid sexual relations during the recovery period. You might prefer to be the passive partner or try different positions to find the most comfortable for you.
- **Activity and exercise:** Walking is the best activity to start doing following your surgery. It helps improve your general fitness and leg strength. Gradually build up the amount of walking that you do each day. Try to get into a routine so that you gradually get in the habit of walking a bit further and faster. You may find it

helpful to use an App in your mobile phone to count your daily steps. Remember to put the phone in your pocket.

- **Exercise/Sport:** You can start gentle exercise as soon as you are comfortable although this may take a couple of weeks. Examples of initial activities would be increasing walking distance and using a static bike. Start with no resistance for a short period e.g. 2 minutes, and gradually build up. Over the first 6 weeks you can build up the time spent on these activities and how briskly you do them. Cycling outside can start once you have comfortably managed on a static bike for a few weeks.
    - You may swim as soon as your wound is healed which is normally around 2-4 weeks. Talk over any other sports/ activities with your Surgeon or Physiotherapist.
    - Gentle, supervised Pilates or yoga exercises can be started early on but it may take a little while until you are ready for a full class.
    - If you were fit in sports before, you can resume **training** at 12 weeks, or take part in non-contact sports. All activities will require a slow increase in time spent on the activity, intensity of the activity and how frequently you do the activity.
    - No impact sports such as jumping, running for the first 12 weeks.
    - For contact sports and golf ask your Surgeon for advice.

When will you see the Surgeon's Team for a review?

You will be reviewed by the doctor in clinic around 6 weeks after the operation to check your progress. Please discuss any queries you may have when you are at the clinic. Further outpatient appointments are made as necessary. Your surgeon will request outpatient Physiotherapy appointment to be arranged for 3-4 weeks after your surgery.

When to ask for advice and how do you contact us?

If you experience any of the following symptoms:

- leaking fluid or redness at the site of your wound
- your stitches come out
- your dressing becomes soaked with blood
- you have a high temperature (fever) of 38°C (100.4°F) or above
- you have increasing pain, numbness or weakness in your legs, back or buttocks
- you cannot move your legs
- you cannot pee or control your bladder
- you have a severe headache
- you experience a sudden shortness of breath (this could be a sign of pulmonary embolism, pneumonia or other heart and lung problems)
- Contact Ward 1 during office hours at this number **01494 426398** or **111** or A&E/Emergency Department during out of office hours.

How do you contact us?

- **Outpatient Appointments: 01296 838888**
- **Stoke Mandeville**
  - Ward 1: **01296 315050**
  - Ward 2: **01296 316503**
- **Wycombe Hospital**
  - Ward 12B: **01494 426398**
- **Physiotherapy Departments**
  - Amersham: **01494 734109**
  - High Wycombe: **01494 425431**
  - Stoke Mandeville: **01296 315087**

Where else can you find more information?

- **www.spinesurgeons.ac.uk/patient-area**
- **www.nhs.uk/conditions**

Resources for Back Pain

- **Back pain exercises and advice**, Chartered Society of Physiotherapy
  www.csp.org.uk/conditions/back-pain
- **Back pain information**, Versus Arthritis
  www.versusarthritis.org/about-arthritis/conditions/back-pain
- **Back pain Information and advice**, Keele University
  startback.hfac.keele.ac.uk/wp-content/uploads/2020/03/Digital-startback-leaflet-zapcode-version-FINAL-Feb-2020.pdf
- **Spinal stenosis information**, Patient
  patient.info/bones-joints-muscles/back-and-spine-pain/spinal-stenosis
- **Osteoarthritis information**, Versus Arthritis
  www.versusarthritis.org/about-arthritis/conditions/osteoarthritis-oa-of-the-spine
- **Osteoarthritis guide book**, Jigsaw-E
  jigsaw-e.com/osteoarthritis-leaflet
- **Osteoarthritis**, Arthritis Action
  www.arthritisaction.org.uk/living-with-arthritis/what-is-arthritis/osteoarthritis

How can I help reduce healthcare associated infections?

Infection prevention and control is important to the well-being of our patients and for that reason we have infection prevention and control procedures in place. Keeping your hands clean is an effective way of preventing the spread of infections. Please follow our infection prevention and control guidelines when visiting our healthcare sites. Further information is available on our website.

Patient Advice Sheet

If you would like a copy of this information on audiotape, in large print or translated, please call the Patient Advice Liaison Service on **01296 831120** or email **bht.pals@nhs.net**

Please remember that this leaflet is intended as general information only. We aim to make the information as up to date and accurate as possible, but please note that it is subject to change. Please therefore always check specific advice on any concerns you may have with your doctor.

Buckinghamshire Healthcare NHS Trust.
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