



Advice to help manage your low back pain with or without leg symptoms

Information for patients
Physiotherapy

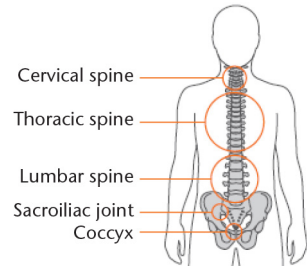


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REASONS FOR LOW BACK AND/OR LEG PAIN

The spine is **strong and mobile** and back problems are rarely due to any serious issue. Low back pain is soreness or stiffness in the back, between the bottom of your ribs & top of your legs. Most back problems start for no obvious reason.



There is no one risk factor for back pain. It may be related to genetics, family history, lifestyle, accidents, smoking or stress.

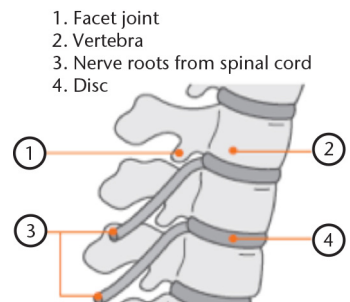
TYPES OF PAIN

Mechanical Pain

- ❖ Pain coming from the joints in your lower back and/or the muscles surrounding the lower back
- ❖ A strain of the muscles/joints which can cause muscle spasm that can travel into your buttock and legs.

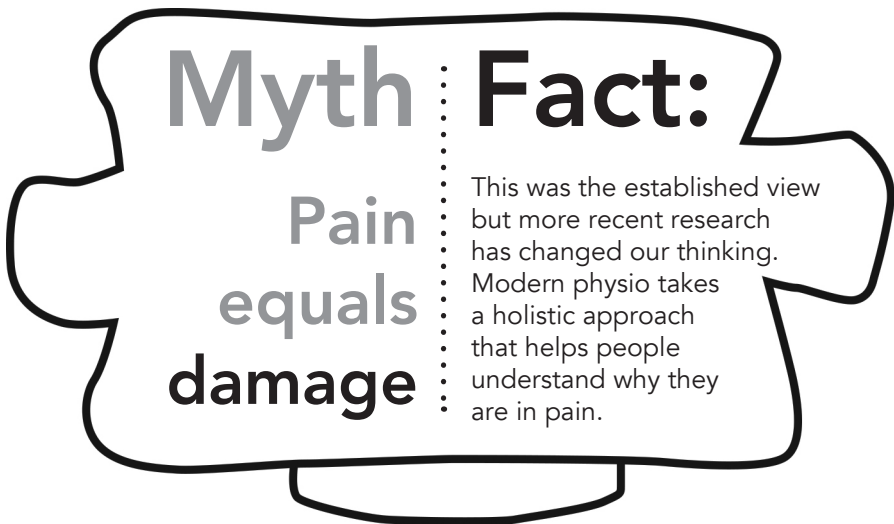
Nerve Pain

- ❖ Nerves help you feel and nerves help you move. Feelings like burning/shooting pain, numbness, pins/needles and weakness can occur. Sometimes the pain travels down the length of the nerve and can reach your foot and toes.
- ❖ Can last a long time, but will often improve within four months. A change in the signs & symptoms or pain behaviour can indicate that things are "turning a corner".



Chronic Pain

- ❖ Although back and leg pain can completely resolve, for some people, it can become a long term issue. This is referred to as Chronic pain if it has lasted longer than three months
- ❖ Sometimes pain is no longer due to a structural issue but more related to the fact we are more sensitive to stimuli and our central nervous system (our brain and some nerves) are 'switched on' to pain
- ❖ A good way of describing it is that the volume knob on our pain system has been left turned up like a radio stuck on 'loud'. This is a situation which you can learn to manage and more information is contained on pages 15-16.




SHOULD YOU BE WORRIED ABOUT YOUR BACK AND/OR LEG PAIN?

80% of the adult population have an episode of back pain in their life. Less than 1% have back pain which needs urgent medical attention so you are most likely in the 99%.

Many people have a combination of back pain, leg pain, leg numbness and weakness. These symptoms can be distressing for you but don't require emergency medical attention. There is a rare, but serious condition, called **cauda equina syndrome** which does need to be seen by an emergency spinal team.

If you have developed any of the **following signs and symptoms that have recently started along with your back/leg pain**, phone the 111 service as soon as possible:

**Cauda Equina Syndrome Warning Signs**

- Loss of feeling/pins and needles between your inner thighs or genitals
- Numbness in or around your back passage or buttocks
- Altered feeling when using toilet paper to wipe yourself
- Increasing difficulty when you try to urinate
- Increasing difficulty controlling your flow of urine
- Leaking urine or recent need to use pads
- Not knowing when your bladder is either full or empty
- Inability to stop a bowel movement or leaking
- Change in ability to achieve an erection or ejaculate
- Loss of sensation in genitals during sexual intercourse

Any combination seek help immediately

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If you have recently started to experience any of the following along with your back pain, speak to your GP as soon as possible:

- ❖ Feeling unwell
- ❖ Pain after a fall or trauma from an accident
- ❖ Unexplained weight loss in the last 6 months
- ❖ Pain that started when you were ill with another medical condition such as cancer
- ❖ Unsteadiness when you walk

WHAT DO THE HEALTH PROFESSIONALS DO?

As a GP

I can assess you,
prescribe medication for your
pain as required & refer onto
Physiotherapy or Leisure services
where appropriate.



As a Physiotherapist

I can assess & treat low back pain.
I mainly provide **exercise based treatments & advice** on pain management.
I may also consider manual treatments.
I can also help identify serious problems that
occur very rarely & ensure that they are
managed in the correct way.



If you feel that physiotherapy may help
you can self-refer by visiting our website:
[http://www.nhslanarkshire.scot.nhs.uk/
services/physiotherapy-msk/](http://www.nhslanarkshire.scot.nhs.uk/services/physiotherapy-msk/) or your GP
can self refer if you are not able to access
the internet.



DO I NEED AN X-RAY OR MRI?

Myth : Fact:

A scan
will show
me exactly
what is
wrong

Sometimes it will, but most often it won't. Also even people without back pain have changes in their spine so scans can cause fear that influences behaviour, making the problem worse.

X-rays

A lumbar spine x-ray exposes you to a radiation dose which is the equivalent of 40 chest x-rays. This can be harmful and only provides information about the bones and joints. For this reason you will only be referred for a back x-ray if a fracture is suspected after an accident or if you have a known condition such as osteoporosis.

MRI

A Magnetic Resonance Scan (MRI) can be a useful tool for examining the spine further. **There is a strict referral procedure for Spinal MRI scans within NHS Lanarkshire.**

MRI scans are not used to give a diagnosis, they are used to confirm a diagnosis made after you have been assessed. The scan shows soft tissues including the muscles and discs and enables the medical team to determine whether your treatment should be changed; (particularly if surgery is being considered).

People often worry about the findings on MRI and these feelings can make it harder to cope with pain. But take a look at the table below. It details the findings of 3110 patients **without back pain** who had MRI scans. The table shows us the normal age related changes that we can expect in our spines. This is similar to seeing grey hair and wrinkles in the mirror as we get older!

Findings from MRIs on people with no lower back pain related to their age (Brinjijki et al. 2015)

Age	20	30	40	50	60	70	80
Disc Degeneration (Ageing of the Spine)	37%	52%	68%	80%	88%	93%	96%
Disc Bulge (Middle of the Disc Bulges out)	30%	40%	50%	60%	69%	77%	84%

So we can all have these spinal changes and they will not prevent us from leading a **normal life: Fantastic News!!!**

Summary:

MRI scans are used to confirm a suspected diagnosis and to help guide treatment if surgery is being considered

Back Pain Pathway

In NHS Lanarkshire we operate a back pain pathway. This system helps us ensure you will see the clinician who is best placed to help you.

We use the information supplied in your self-referral (or GP referral) to help us with this.

For most people the first clinician you see will be a Physiotherapist. They will go through a detailed assessment with you and work to help you with your problem. If your Physiotherapist feels you need further investigations or seen by a more specialist clinician, they will facilitate this for you.

A few people will see one of our advanced physiotherapy practitioners. They are specialists who can arrange investigations and work closely with spinal surgeons (Neurosurgery and Orthopaedics).

Very few people with low back pain (less than 2%) need an operation. Our back pain pathway helps us to identify these people in a timely manner.

TREATMENT AND MANAGEMENT OPTIONS



There is no single treatment for low back pain. Any treatment and advice that you receive from your Healthcare Professional should be evidence based and tailored to your individual needs.

If you have back pain, it is recommended that you:

- ❖ Take the correct medication as prescribed by your GP
- ❖ Receive advice/education to help you understand your condition and how to manage it
- ❖ Remain in work, or return to work as soon as possible
- ❖ Return to your normal activities as soon as possible
- ❖ Exercise regularly by choosing an exercise that is enjoyable and meaningful to you. The exercise that you do should fit your specific needs, preferences and capabilities
- ❖ Use strategies to look after your mental health & wellbeing

ANALGESIA

- ❖ Analgesia also known as pain relief can be an important part in helping you manage your symptoms and allow you to stay active.
- ❖ Taking the right kind of pain relief regularly allows you to move more normally and continue your usual activities without causing any damage. Pain relief won't always stop your pain completely. For this reason we use the term pain relief (A 30-50% reduction in pain would be a good success).

Pain relievers/anti-inflammatory medications can be used as advised by your GP or Pharmacist. If you feel the ones you usually take are not helping your pain or you have any side effects from your medicines, please speak to your GP or pharmacist.

PEOPLE WITH BACK PAIN SHARE THEIR STORIES

Patient who attended physiotherapy with low back pain:

"My first appointment was very informative. The Physio went through my injuries with me and drew up a list of exercises. Over the next 6 months I realised Physio was getting me to be more mobile... I have regained most of my mobility although I still have lower back pain I am pleased with the treatment I received."

Patient who attended physiotherapy with back and leg pain:

"The physio took all my details and listened to me while I explained where the pain was worst. She examined my back, legs and feet. I was shown how to do several exercises. Some involved lying down and others sitting or standing. Other exercises increased weekly. I found them really helpful."

ACTIVE HEALTH & WELLBEING SERVICES IN LANARKSHIRE

Leisure Centres

Exercise classes, swimming pools & gym facilities can be accessed to:

- ❖ increase activity levels
- ❖ improve your physical and mental wellbeing
- ❖ improve the flexibility & strength of your back

Weigh to Go

15 week FREE adult weight management programme which provides a weekly 'weigh in', exercise & nutritional advice. Please contact your local leisure centre.

Free Specialist Health Classes/Gym Access

In North Lanarkshire a GP or physiotherapist may refer you to an exercise class specifically for back pain.

In South Lanarkshire your GP or physiotherapist can refer you into the Physical Activity Prescription Programme (PAP).

Well Connected

This is Lanarkshire's social prescribing programme which allows people to take part in and benefit from various free activities. It includes:

- | | |
|---------------------------------|------------------------------|
| ❖ Physical activity and leisure | ❖ Employment |
| ❖ Arts, creativity and culture | ❖ Welfare and benefit advice |
| ❖ Healthy reading | ❖ Stress control classes |

For more information call:

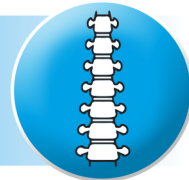
North Lanarkshire: 0800 073 0918

South Lanarkshire: 0330 3000 133

Facts about the intervertebral discs in your lower back



HEALING -
67% of lumbar Disc Bulges
Return to normal



CYCLING -
seems to have a positive effect
on the Discs and spine

STRENGTH TRAINING -
Strength training seems to promote
healing processes of the discs



RUNNING - "We are born to run"
Moderate running strengthens
the intervertebral disc

CHANGES - Disc changes can be explained to a large extent by genetics and the natural ageing process. The Mechanical influence, on the other hand, is rather small



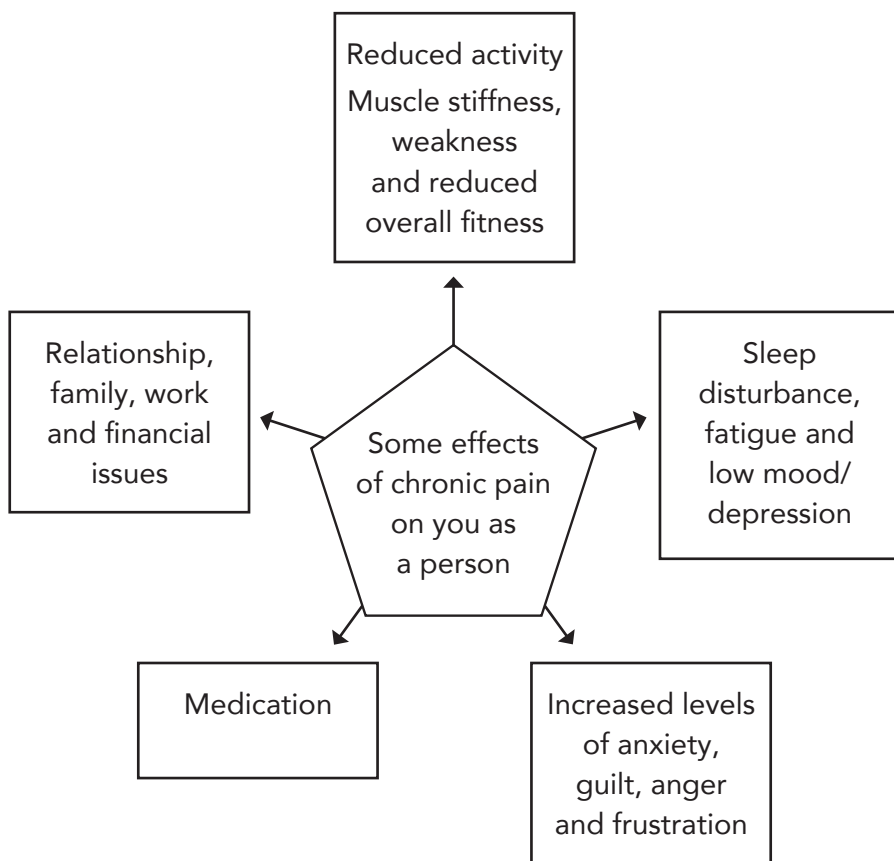
REFERENCES

Quellan Belavy et al. (2017), Zhong et al. (2017), Teichthal et al. (2015), Belavy et al. (2018), Battie et al. (2009), Steele et al. (2015)

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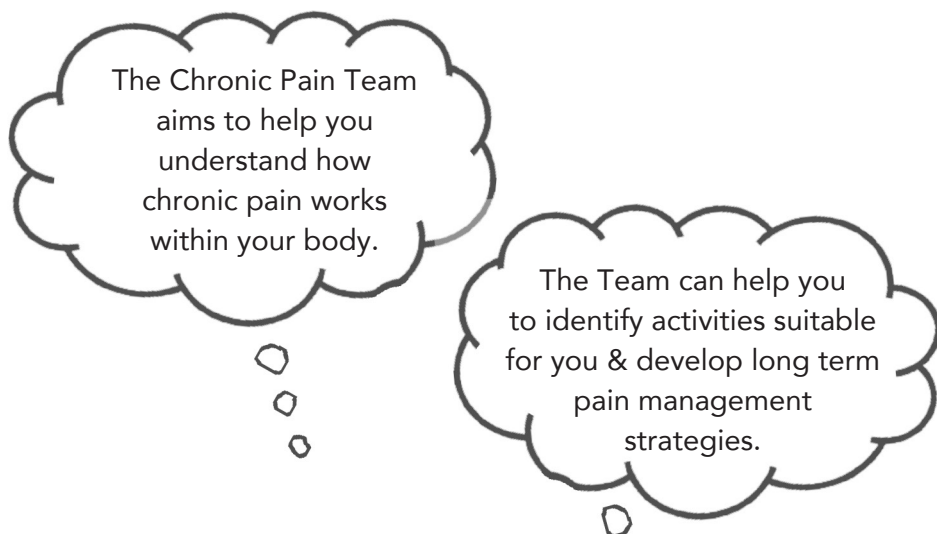
MANAGEMENT OF CHRONIC PAIN

Chronic pain can have a big impact on a person's life:



NHS Lanarkshire has a Chronic Pain Service which specialises in the management of chronic pain. They are a team of doctors, physiotherapists and psychologists who provide 1:1 sessions & courses.

Your physiotherapist or GP may suggest a referral to the pain management service.



Here are some websites which explain what chronic pain is in more detail:

www.nhslanarkshire.scot.nhs.uk you'll find the Chronic Pain Service in the "Services" section.

Pain Association Scotland

Pain Association Scotland is a national charity that delivers high quality professionally led pain management in the community. The service offers information and advice to those affected by long term persistent pain. It is open to anyone regardless of diagnosis and at any time.

Monthly meetings take place in various venues across Lanarkshire. More information can be found here:

www.painassociation.com

PSYCHOLOGICAL AND SOCIAL DIMENSIONS

Employment

- ❖ Remaining in or returning to work as soon as possible aids recovery.
- ❖ If you are in work it is recommend to speak with your employer to discuss ways & methods to keep you at work.
- ❖ If you have a health condition & need help at work please look at the following site: www.gov.uk/access-to-ork/what-youll-get

Mental Health

Depression/Anxiety can influence your recovery from back pain.

Please look at the self-help resources on this website

www.elament.org.uk if you want to:

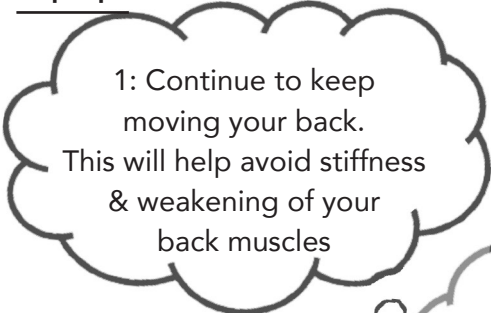
- ❖ Improve self-confidence and self esteem
- ❖ Reduce low mood
- ❖ Reduce feelings of stress
- ❖ Help with problems such as money worries, loneliness & unemployment

FLARE UP MANAGEMENT

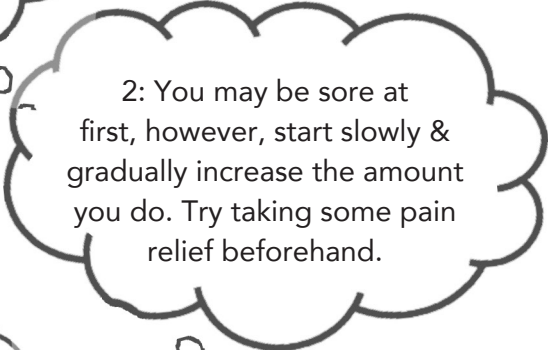
❖ Flare-ups of pain are common.

❖ Some people have recurrent pain episodes. In most cases a pain flare-up will improve within six weeks.

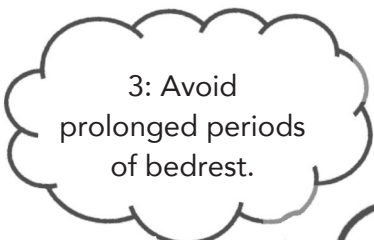
Top tips



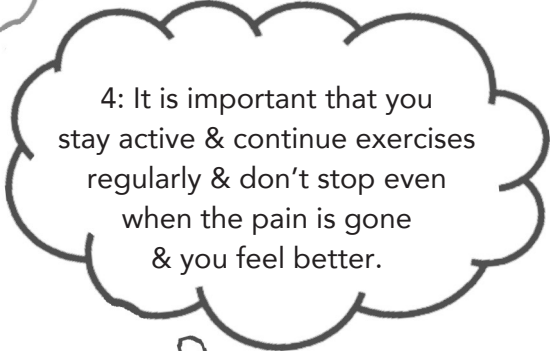
1: Continue to keep moving your back. This will help avoid stiffness & weakening of your back muscles



2: You may be sore at first, however, start slowly & gradually increase the amount you do. Try taking some pain relief beforehand.



3: Avoid prolonged periods of bedrest.



4: It is important that you stay active & continue exercises regularly & don't stop even when the pain is gone & you feel better.

SPINAL SURGERY

Surgery is effective
& appropriate for less than
1% of people with
back/leg pain.

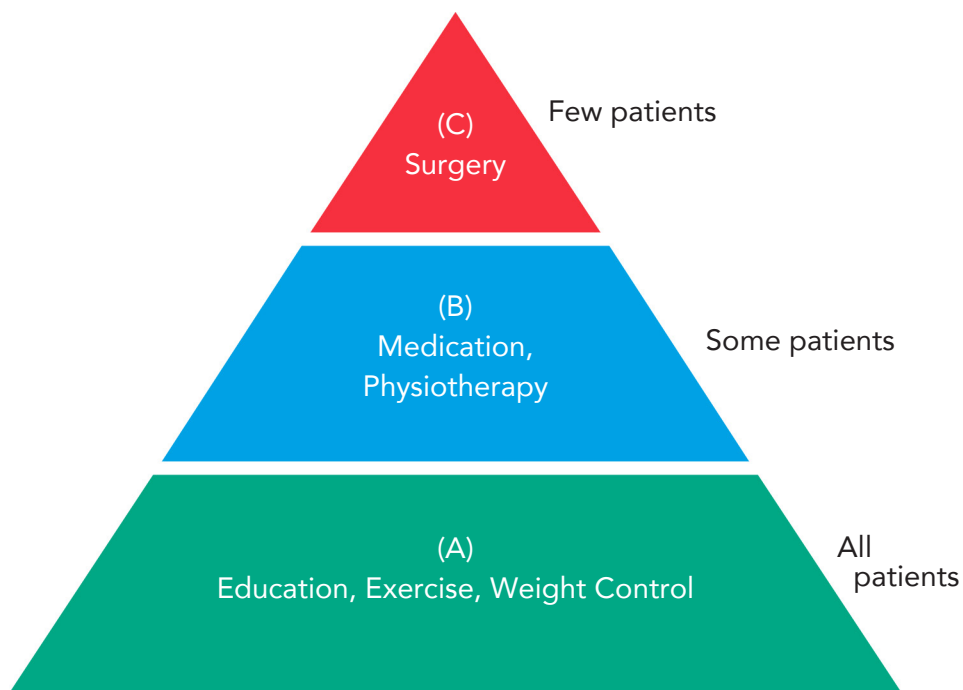


- ❖ Sciatica is most common in people in their 30s & 40s. It can be due to a disc bulge or other structure than irritates the nerves
- ❖ Older people may have changes related to ageing which can produce a narrowing of the bony spinal canal. The condition is termed "spinal stenosis". This typically causes symptoms of pain & numbness to the legs with standing/ walking & eased by sitting or bending forwards

In the early stages surgery is usually not considered because a significant number of people get better naturally within 6-12 weeks. This can happen if the disc or swelling around a nerve decreases naturally with time.

Six out of 10 patients can get better spontaneously after six weeks, while 8 out of 10 patients will feel better by three months.

In general, the majority of people with leg symptoms due to nerve irritation will get better over time. However, surgery is considered when the pain has not got better with physiotherapy/time and the surgeon feels that surgery may help.



All patients will benefit from the (A) Green Options.

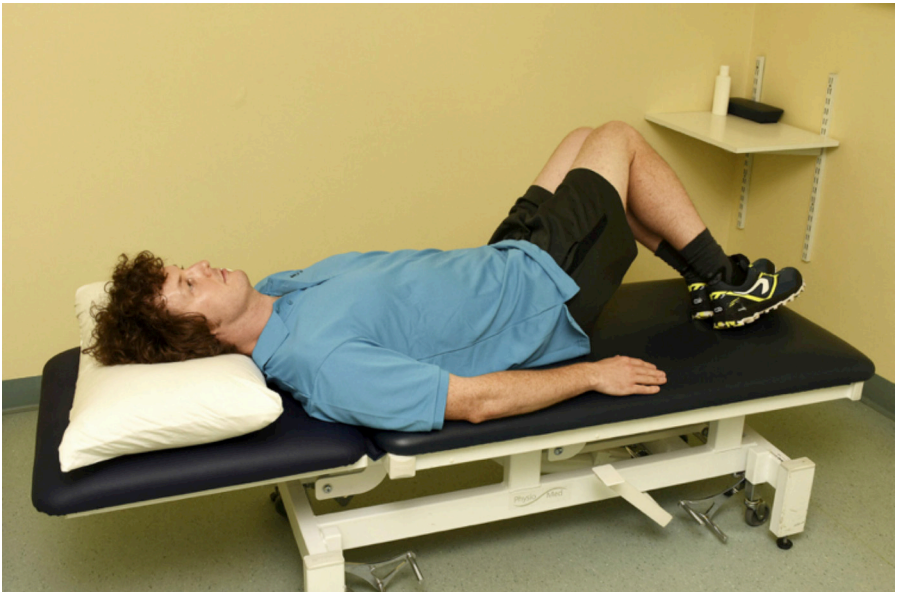
Some will benefit from the (B) Blue options.

A few will benefit from the (C) red option.

Exercises that may help you manage your low back/leg pain.

BASIC MOBILITY EXERCISES - LYING DOWN

Supine Lumbar Rotation



Lie your back on your bed or a suitable exercise mat. Try to relax your lower back onto the exercise surface, rest your heels on the exercise surface and keep your knees and ankles together.

Roll your legs to one side to gently mobilise your lower back. Hold for approximately three seconds and then return to the starting position.

Perform five repetitions to each side. Repeat periodically throughout the day.

Supine Posterior Pelvic Tilts



Lie on your back on a bed or suitable exercise mat. Try to relax your lower back onto the exercise surface, rest your feet on the exercise surface and keep your knees and ankles close together.

Place your hands under your lower back.

Using your tummy muscles, gently press you lower back onto your hands. Remember to keep breathing during the exercise. You should feel your pelvis move slightly. Hold for five seconds and then relax your tummy muscles.

Perform 10 repetitions. Repeat periodically throughout the day.

BASIC MOBILITY EXERCISES - SITTING

Seated Posterior Pelvic Tilts



Start position



End position

Sit upright on a chair or the edge of a bed. If on a chair, shuffle forward slightly away from the back support.

Gently round your lower back as if slouching. You should feel your pelvis tilting back slightly. Try to keep your upper back, head and shoulders still so that the movement comes from your lower back. Remember to keep breathing during the exercise. Hold this position for three seconds.

Perform 10 repetitions. Repeat periodically throughout the day.

Seated Side Flexion



Sit upright on a chair or edge of a bed.

Gently side bend to one side, sliding your hand down your leg towards your ankle. Remember to keep breathing during the exercise. Hold this position for three seconds.

Perform five repetitions to each side. Repeat periodically throughout the day.

Seated Lumbar Flexion



Sit upright on a chair or the edge of a bed.

Gently bend forward to feel a stretch in your lower back. Remember to keep breathing during the exercise. Place your arms on your thighs if needed to give you some support. Hold this position for 10 seconds.

Perform five repetitions. Repeat periodically throughout the day.

BASIC MOBILITY EXERCISES - STANDING

Standing Side Flexion



Standing upright, feet slightly apart for balance.

Gently bend to one side, sliding your hand down your thigh towards your knee. Remember to keep breathing during the exercise. Hold this position for three seconds.

Perform five repetitions to each side. Repeat periodically throughout the day.

BASIC STRENGTHENING EXERCISES

Sit to Stands



Start position



Mid position

Sitting on a chair or the edge of bed, feet slightly apart for balance. Cross your arms in front of you.

In a slow and controlled manner, raise your body as if to stand up. You will feel your thighs, hips and lower back muscles working. Fully extend at the end of the movement so that you are standing upright. Lower gently back to the starting position. Perform 10 repetitions approximately, until you feel that your muscles have done some exercise. Perform two or three times a day.

Shallow squats



Mid position



End position

Standing next to a supportive surface such as a kitchen worktop or holding onto the back of a suitable chair. Have your feet slightly apart for balance.

Starting from a fully upright position, in a slow and controlled manner, lower your body by bending your knees. Make sure to stick your bottom out to avoid straining the knees. You will feel your thighs, hips and lower back muscles working. Only lower yourself a small distance, and hold this position for three seconds before raising your body again to the starting position.

Perform 10 repetitions approximately, until you feel that your muscles have done some exercise. Repeat two or three a day.

Bridging



Lie on your back on a bed or suitable exercise mat. Rest your feet on the exercise surface and keep your knees and ankles slightly apart. Place your hands along your sides or across your chest.

Using your tummy muscles and by squeezing your buttocks, gently raise your lower back off the exercise surface, raising your pelvis sufficiently so that you make a straight line from your chest to your knees. Remember to keep breathing during the exercise. Hold for five seconds and then relax back to the starting position.

Perform 10 repetitions. Repeat two or three times each day.

If your symptoms continue to worsen or do not show signs of improvement after a period of 6-12 weeks of following the advice above, a self-referral to physiotherapy can be made on our website:

<https://www.nhslanarkshire.scot.nhs.uk/services/physiotherapy-msk/> or via your GP.



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NHS Lanarkshire take care to ensure your personal information is only accessible to authorised people. Our staff have a legal and contractual duty to keep personal health information secure, and confidential. In order to find out more about current data protection legislation and how we process your information, please visit the Data Protection Notice on our website at www.nhslanarkshire.scot.nhs.uk or ask a member of staff for a copy of our Data Protection Notice.

NHS inform - The national health information service for Scotland.
www.nhsinform.co.uk
Tel No: 0800 22 44 88

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Services@lanarkshire.scot.nhs.uk



www.careopinion.org.uk

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