

## Lumbar Radiculopathy

This leaflet aims to give you some information about what Lumbar Radiculopathy is and what you can do to help manage the symptoms you are experiencing.

### What is Lumbar Radiculopathy?

Nerve root pain (also called radicular pain) is the medical name for pain coming from a nerve in the spine, and is more commonly known as sciatica.

A lumbar radiculopathy is usually caused by a disc prolapse, but there are other causes.

### How is Lumbar Radiculopathy Diagnosed?

A lumbar radiculopathy is diagnosed from the signs and symptoms you describe alongside an examination, which may include:

- Movements of the back
- Nerve tests including, sensation, reflexes and muscle power
- Nerve stretching tests

### What's wrong with me?

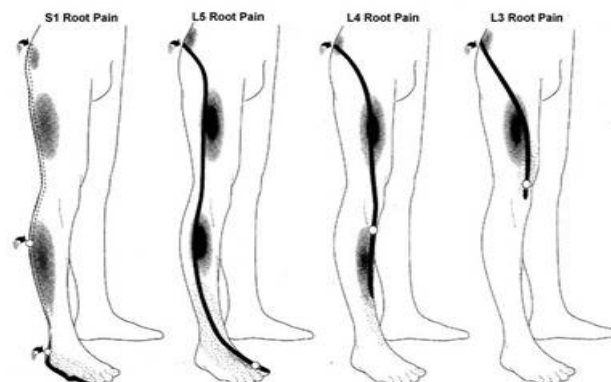
As you get older, the tissues in your spine change in response to the stresses and strains of normal everyday life. For example, the discs of the spine may become thinner, bulge, and ligaments can stiffen. This process starts around the age of 25-30 and is a normal aging process. These changes can lead to a narrowing of the holes in the back that nerves pass through, and in some cases can cause pressure on the nerves.

These changes occur over many years, like wrinkles on our skin. For most people, these changes do not cause any symptoms. Up to 80% of individuals over the age of 60 will have visible signs on an X-ray and MRI, however few will get pain. It is also not uncommon to find on MRI scan, that people can have discs touching nerves that cause no symptoms whatsoever.

The term 'slipped disc' has been used in the past to describe a disc prolapse, however this does not accurately reflect what goes on in the spine, and often leads to increased fear and worry. Even if you have a disc prolapse with nerve root pain, your back is still strong.

### How can this affect me?

Nerve symptoms are felt in the leg depending on the part of the spine that is affected. This usually occurs in the area of the body the affected nerve travels to. The pictures below demonstrate common patterns of symptoms into the arm.



### *What are the main symptoms of a lumbar radiculopathy?*

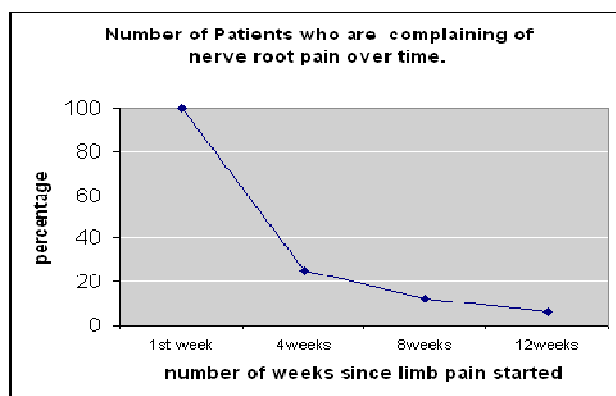
Irritation of the nerves in the spine can cause a variety of symptoms, which differ from person to person. Common symptoms include:

- Pain and increased sensitivity
- Pins and needles, and Numbness
- Muscle Weakness
- Altered sensations such as trickling water

Nerve pain is usually described as burning in nature, and normally spreads below the knee or elbow in the affected limb. Often nerve pain and back pain are present at the same time.

### *How long will it take to get better?*

Research shows 60-80% will see significant improvements in their symptoms within 6 weeks, and have fully recovered by 13 weeks. Some people can experience low grade symptoms for several months.



Medications and therapies can help but there isn't usually a "quick fix". There is a need to wait for natural recovery to take place. If the pain isn't getting better, is really affecting your ability to function, and have had it for more than 4 weeks, you should seek further assessment from your GP.

### *What I can do to help myself get better?*

Although a lumbar radiculopathy can affect your quality of life, it is not serious or dangerous. Your spine is still strong and you should remain as active as possible.

If your symptoms are manageable then it is unlikely that surgery is needed. Most people with nerve root pain can successfully manage their symptoms with simple less risky treatments, called conservative treatment options.

While it is common that people with back pain will look for someone to get rid of their pain, it is more effective to find a strategy that allows you to be in control and manage your symptoms.

### **Conservative treatment options**

## 1. Managing pain

You can take over the counter painkillers such as paracetamol or ibuprofen. Your GP or pharmacist can provide further guidance on the risks of these and how to use them effectively.

If your symptoms are more severe, then discuss nerve pain modifying drugs (called neuropathic pain medication) with your GP. Examples are gabapentin or pregabalin and amitriptyline. Pain medication is usually most effective when combined with an exercise programme.

## 2. Pace yourself

Pacing is a strategy to increase activity without increasing your symptoms. Start by establishing a manageable routine, for example:

*At the moment, I can...*

<i>Walk for</i>	<i>minutes</i>
<i>Stand for</i>	<i>minutes</i>
<i>Lift</i>	<i>kg / lbs from one table to another</i>

Once you know what you can do, create a plan to increase it.

Begin by doing less than you do at present (say 80%), but do this more frequently through the day. Increase this gradually every few days to improve your activity tolerance.

## 3. Exercise

Exercising with nerve pain may seem daunting, but it is one of the most important elements of managing nerve root pain. Improving your flexibility, strength and overall level of fitness is important in helping you manage your symptoms.

There is no evidence that one type of exercise is better than another, however, you should enjoy what you are doing.

You may initially find exercises that are low impact more comfortable, such as cycling on an exercise bike or exercises in water.

Use the pacing principles to judge how much exercise you should start with, and to increase your exercise over time. It is better to do a few exercises several times a day rather than all at once.

## 4. Lifestyle

Lifestyle can significantly impact upon the amount of pain and physical restrictions a nerve pain can cause.

Although it can be difficult to be cheerful or optimistic if you are in pain, it's important to stay positive as this can help you recover faster. Low mood, stress and poor sleep are all known to increase pain by making our nerves more sensitive.

Ensuring that you have a regular sleep pattern, taking steps to reduce stress, such as relaxation and mindfulness can help you to better manage your symptoms.

Carrying excess body weight can increase the pressure on your lower back and contribute to your pain. Even if you have nerve root pain, you can still lose weight in the same way everyone else can: by reducing the calories you consume and increasing exercise.

Create a calorie deficit by cutting empty calories from your diet. Reduce the amount of sugar, processed food, saturated fat, fizzy drinks and alcohol you consume. Replace these foods with lean meats, fruit, vegetables, whole grains, nuts and seeds.

Smoking causes the release of harmful chemicals into our bodies that slows healing and makes nerves more sensitive to pain. Smoking also increases the level of stress hormones, which also increases nerve sensitivity. Visit [www.smokefreewestsussex.co.uk](http://www.smokefreewestsussex.co.uk) to find out more about stopping smoking.

## 5. Posture

Certain postures can place extra strain on the spine contributing to your symptoms. Taking steps to improve your posture by improving your seating position may help. However in some instances you will need to adopt strange postures to reduce your pain.

Take regular breaks from your desk, driving or any activity where your spine is held in the same position for a long period of time. Often changing your posture may feel awkward at first because your body has become so used to sitting and standing in a particular way. Sometimes a supporting pillow seems to help some people.

## 6. Physiotherapy

Physiotherapists are experts in helping people develop self-management strategies and developing exercise routines for individuals with pain and medical problems.

Individuals with nerve root pain may also find some physiotherapy treatments helpful in reducing their pain in the short-term; however these treatments alone will not give you a longer term cure.

Treatments such as acupuncture, ultrasound and traction have no scientific basis for the treatment of nerve root pain and are no longer routinely offered. Nerve root pain is most effectively managed when you take control.

### *How can a clinician help?*

#### **What about scans?**

An MRI scan (magnetic resonance image) may be helpful if pain does not settle or if an intervention like an injection or operation is being considered.

An MRI scan is the gold standard for getting an internal view of the bodies' structure. MRI scans don't involve x-rays and are very safe, although they are quite noisy and some people find them claustrophobic. X-rays only provide limited information about the discs and nerve roots, and are therefore are not routinely arranged.

### **Do I need a scan?**

MRI scans are not normally required in the early stages of a lumbar radiculopathy, because it is normal that pain will improve on its own, with time.

MRI scans are very sensitive and will detect almost all serious spine problems such as cancer, infection or pressure on the spinal cord or spinal nerves.

They will also comment on minor abnormalities that are not important, or related to your symptoms. Although these words can sound concerning, they are nothing to worry about.

### **Should I be concerned?**

In **very rare cases** a disc bulge could result in a cluster of symptoms that require requires immediate attention. This is termed cauda equina syndrome. Although very rare, it is important to act on these symptoms as an emergency, to avoid permanent symptoms

Cauda equina syndrome is the result of compression of the nerves in the base of your spine that supply the muscles and sensation to your bladder, bowel, genital area and legs, this could cause:

- Loss of feeling or pins and needles between your legs, around your genitals or back passage
- Changes to bladder and bowel function, such as loss of sensation, loss of control or an inability to empty your bladder
- Sexual problems such as loss of vaginal sensation and inability to achieve an erection or ejaculate
- Weakness in the legs affecting walking

If you think you are experiencing any of these symptoms you should attend your nearest Emergency Department.

### **What if my symptoms do not improve?**

If your symptoms don't improve with conservative treatment, or severely restrict your quality of life then you may be referred for spinal injections to alleviate your leg pain, or surgery to reduce pressure on the spinal nerves. Surgery will be advised for those individuals who develop progressive leg weakness, or bowel and bladder problems.

### **What does injection or surgery entail?**

If your signs and symptoms match up with your imaging findings, then an injection such as a nerve root block can be very helpful for leg pain. Injections are low risk procedures that can be repeated, and benefit about 60% of people with nerve pain in the leg, however they are not particularly helpful for back pain.

If symptoms remain unacceptable despite trying conservative measures, then surgery can be considered. This will need to take into account your general health and overall fitness. Surgery is most likely to benefit nerve pain in the leg, however it is not particularly helpful for

back pain. Spinal decompression involves removal of the bone or tissue that is compressing the nerves is removed to give the nerves more room.

***Summary: what are the key take home messages?***

A lumbar radiculopathy usually settles over time and recurrence is rare. Distress and fear often make pain worse.

- Lumbar radiculopathy can be very varied and the amount of pain you are in, is NOT related to the size of the disc bulge.
- Stay at work or return back as soon as possible. It will hurt whether or not you are working, and normal activities will not delay recovery.
- Medications and adjustments in lifestyle help to improve your quality of life while healing occurs.
- Only a small number of patients who are not settling over the usual time scale will require either injection or surgical interventions.