NEUROPATHIC PAIN

What is neuropathic pain? What causes it and how can it be managed?

Pain specialist Dr Alan Fayaz explains the condition and provides information on the treatment options available.

Neuropathic pain is a type of pain that may happen if nerves are damaged, irritated or not working properly. People with neuropathic pain often describe it as burning, shooting, electric shock-like, tingling, crawling or even itching sensations.

It affects around 1 in 10 adults in the United Kingdom. It can be caused by a problem with the nerves outside the spine (the 'peripheral nervous system') and/or in the brain and spinal cord (the 'central nervous system').

As well as pain, this nerve damage or irritation can cause other symptoms. These include increased sensitivity to touch, muscle weakness or spasms, and changes in the affected area such as differences in colour, temperature or sweating.

WHY DO I HAVE NEUROPATHIC PAIN?

There are many possible causes for neuropathic pain. Some examples are listed below.

Common situations

- Nerve entrapment (pinching of a nerve), for example where a nerve is compressed as it leaves the spine (sciatica), or at the wrist (carpal tunnel syndrome)
- Nerve damage after surgery such as chest surgery (thoracotomy) or hernia repair
- Nerve damage related to diabetes – symptoms often (but not always) begin in the hands and feet, sometimes described as a 'glove and stocking' pattern (affecting the areas covered by gloves or socks)
- Pain after shingles (post-herpetic neuralgia)

Less common situations

- Trigeminal neuralgia (a specific type of facial pain)
- Pain related to cancer (for example from the tumour itself or from treatments such as chemotherapy or radiotherapy)
- Infection that can affect the nerves (such as HIV or polio)
- Poor nutrition, vitamin B12 deficiency, excess alcohol use
- Phantom limb pain
- Problems with blood supply to the brain (such as stroke), which can sometimes lead to pain affecting one side of the body

Sometimes, even after detailed assessment and tests, no clear cause can be found. This does not mean the pain is not real, and it does not mean it cannot be managed.

HOW DO I KNOW IF I HAVE NEUROPATHIC PAIN?

People often describe neuropathic pain as 'burning' or 'electric', and may also experience numbness, tingling, itching, aching, tightness or sensitivity of the skin. Because neuropathic pain has certain typical features, simple questionnaires (such as the DN4 screening tool) can help identify it. It is important to distinguish neuropathic pain from other types of pain because it is treated differently.

Your doctor will usually make a diagnosis by examining you and asking about your symptoms and medical history. In some cases, blood tests or investigations such as MRI scans or nerve conduction studies (tests that assess how well your nerves carry electrical signals) may also be helpful.

Sometimes, where your pain is, how it feels and how often it happens can give useful clues about where the problem may be in your nervous system. Many people find it hard to describe their pain in words – this is completely normal. The important thing is to describe it as best you can when asked. You may find it helps if you explain what the pain prevents you from doing, or makes you do in order to live with it.

If your pain comes and goes, it can help to make a few notes when it happens. You can then look back on these later. This may also help you notice patterns or things that seem to bring the pain on (called 'triggers').

If an underlying cause is found, it may be possible to treat that condition as well as the pain itself. For example, better control of diabetes could help to improve pain from diabetic neuropathy. However, it is more common for neuropathic pain to be present without a clear cause being found.

Pain Concern is a registered charity (SC023559) and company limited by guarantee (SC546994).
0300 102 0162; info@painconcern.org.uk; 62-66 Newcraighall Rd, Edinburgh, EH15 3HS.

WHAT CAN BE DONE TO MANAGE NEUROPATHIC PAIN?

Management of any type of chronic pain includes a combination of non-drug and drug therapies. Early recognition, treatment and rehabilitation are likely to offer the best chance of optimal pain control.

Your doctor should work with you to choose treatments that suit your needs and preferences as much as possible. Treatment should not only focus on relieving pain, but also support other related issues such as low mood, depression, anxiety or distress, sleep problems and any difficulties with daily activities. The aim is to look after you as a whole person, rather than focusing only on your neuropathic pain.

There are specialist pain management centres across the UK where you can get expert advice and support.

Non-drug treatments for neuropathic pain

Pain management techniques

Many people find that pain management techniques help them cope more effectively with neuropathic pain. These may include self-management approaches that support you in living as full and active a life as possible.

Physiotherapy

Physiotherapists who specialise in pain may work a little differently from what you might expect. They will take time to understand your pain, what might be making it worse and how it affects your day-to-day life. They can support you in gradually getting back to activities that are important to you – like movement, exercise and socialising.

Psychology

Many pain services also offer psychological support for people living with chronic pain. This does **not** mean the pain is 'in your head' or not real. A pain psychologist can help you better understand your pain, learn practical ways to make it less overwhelming, and support you in coping with the emotional effects of living with long-term pain.

TENS

For some people, TENS (Transcutaneous Electrical Nerve Stimulation) can provide short-term relief from pain. A TENS machine is a small, battery-powered device that sends gentle electrical signals through sticky pads placed on the skin. These signals can help reduce pain by interfering with the pain messages travelling to the brain.

TENS is generally safe to use, but it is not suitable for everyone. It should be avoided:

- on the face or front of the neck
- over the abdomen during pregnancy
- if you have epilepsy
- if you have a pacemaker or implanted defibrillator

If you are unsure whether TENS is safe for you, it's best to check with a healthcare professional before using it.

PENS

For some people with nerve pain that is more difficult to treat, PENS (Percutaneous Electrical Nerve Stimulation) may be considered. PENS is a minimally invasive technique where a very fine needle is placed just under the skin to deliver gentle electrical stimulation to the nerves using a small device. Some studies suggest that PENS can provide better pain relief than TENS for certain people.

Acupuncture

Acupuncture involves placing very fine needles into painful muscles and tissues, or into areas that are linked to the pain. For some types of neuropathic pain, acupuncture may provide short-term relief. It can be particularly helpful for easing muscle tightness or spasms associated with neuropathic pain.

Anaesthetic injections

Sometimes, an injection around a nerve can be used to provide temporary pain relief. For example, a nerve root injection involves placing a mixture of local anaesthetic and steroid into the back of a patient with sciatica, near a nerve that may be irritated by a slipped (prolapsed) disc.

Injections may help reduce pain quickly, but they are usually used alongside other treatments rather than as a long-term solution. In some cases, longer-lasting relief may be possible using radiofrequency treatment. This involves applying controlled energy to the nerve to reduce its ability to send pain signals.

Neuromodulation and spinal cord stimulation

Some types of neuropathic pain can be managed with electrical devices (similar to a pacemaker) implanted near the brain or spinal cord. Neuromodulation devices use electrical pulses to interfere with pain signals before they reach the brain – a bit like an internal TENS machine. These treatments are usually considered only when pain has not responded to simpler medicines or non-drug approaches. They are delivered in specialist centres as part of a broader pain management plan and are not effective for all types of neuropathic pain.

Pain Concern is a registered charity (SC023559) and company limited by guarantee (SC546994).
0300 102 0162; info@painconcern.org.uk; 62-66 Newcraighall Rd, Edinburgh, EH15 3HS.

Drug treatments for neuropathic pain

Regular painkillers like paracetamol, anti-inflammatory drugs (for example, ibuprofen, diclofenac and aspirin) and opioid drugs (like codeine and dihydrocodeine) are not usually helpful for treating chronic neuropathic pain.

Medicines that are more likely to help neuropathic pain often work by 'calming down' the damaged or irritated nerves.

First-line treatments

As 'first-line' treatments, there are two main groups of neuropathic pain medicines that can be used in a non-specialist setting (such as a GP surgery) to help with your pain:

a) Antidepressants. These are used for their effect on pain receptors. They often work at lower doses than those used to treat depression and can be helpful even if you are not depressed. Examples in this category are amitriptyline, nortriptyline and duloxetine. Some people with chronic pain may also develop low mood. In these cases, your healthcare professional may suggest psychological support alongside medicine.

b) Anti-epileptics. Once again, these are used for pain, not for their anti-epileptic effect. They can be very helpful in calming neuropathic symptoms. Gabapentin and pregabalin are the most used but have now become controlled drugs in the United Kingdom so cannot be ordered on a repeat prescription. Carbamazepine is a different anti-epileptic that is commonly used as a first-line treatment for trigeminal neuralgia in non-specialist settings.

Both groups of drugs can cause weight gain and drowsiness, so they are started at a lower dose and increased gradually to the most effective dose. They should also be used with caution in women of childbearing age, as they can be potentially harmful to the developing foetus, especially in the early stages of pregnancy.

It can take several weeks of treatment before pain symptoms get better. You should be offered regular reviews to find out how well the treatment is working.

At first, some people stop taking medicines because they notice side effects before any benefit. However, if it is safe to continue, these side effects often improve over time. If you have concerns, you should speak to your doctor.

When first-line treatments don't work

If one 'first-line' medicine is not effective, your doctor may suggest trying an alternative or combining treatments.

Your GP may prescribe you tramadol for a short time. This medicine is generally less effective over time because the body can develop tolerance to it.

Pain Concern is a registered charity (SC023559) and company limited by guarantee (SC546994).
0300 102 0162; info@painconcern.org.uk; 62-66 Newcraighall Rd, Edinburgh, EH15 3HS.

Both patients and doctors are concerned about drug interactions. People with certain conditions like heart, liver and kidney problems, or who are already taking other medicines that share the same side-effect profile, will need to take special care. It is reassuring to know that many of the trials of neuropathic pain drugs include a good number of older patients.

Additional treatments

If your pain is felt in a small area, you might also benefit from 'topical treatments' like capsaicin cream (capsaicin is the 'hot' ingredient in chilli peppers), or by using a numbing cream or patch.

There has been a lot of discussion in the media recently regarding the use of cannabis-based medicinal products (including cannabis oils) in the management of certain health conditions. Unfortunately, there is not enough evidence to support the use of this group of drugs in chronic pain management yet, although changes in the law will make research into their uses easier to undertake in the future.

You should not be offered cannabis extract, capsaicin patches, lacosamide, lamotrigine, levetiracetam, morphine, oxcarbazepine, topiramate, long-term tramadol or venlafaxine for your neuropathic pain outside a specialist clinic unless the specialist pain service has advised your doctor to prescribe them.

Drug treatments in specialist settings

Unfortunately, neuropathic pain medicines do not work for all patients. In fact, up to half of patients may not get significant relief from first-line treatments. If you are finding that your pain is severe or is having a significant effect on your daily life, or if the health problem that has caused your pain has got worse, your doctor should consider referring you to a specialist pain management clinic. This section sets out what you might experience when being treated there.

There are some neuropathic pain treatments that are only available in specialist settings. These treatments are short-term but may help to break the pain cycle and help you focus on rehabilitation. They may include lidocaine (a local anaesthetic, like the medicine used to numb your teeth before dental procedures) and low-dose ketamine (more commonly known as a vet's anaesthetic agent), both of which are administered by intravenous infusion (through a drip in your arm). The evidence for using these treatments is quite mixed, and not all pain clinics are able to offer them.

The use of opioids for neuropathic pain is controversial. Long-term benefits are uncertain, and there are concerns about side effects and dependence. As a result, they are generally not recommended for long-term use.

As with any medicine, you should have a frank discussion with your specialist about the potential risks and benefits if you are considering starting a medicine in this class. Also, be clear about what *you* feel is a good balance between pain relief and side effects.

WHAT IF MY NEUROPATHIC PAIN COMES AND GOES?

Intermittent pain can be more difficult to manage because many of the recommended therapies are relatively slow to take effect and are long-lasting, which is not always what is needed. You may have some benefit from techniques that a physiotherapist or pain psychologist can teach you. A specialist pain management centre will be a good place for advice.

WHERE CAN I GET MORE HELP WITH UNDERSTANDING NEUROPATHIC PAIN?

The best source of help is likely to be your GP, but, if you are also treated by a specialist (like a diabetes doctor or specialist nurse), they are likely to be able to answer many of your questions. If they are unable to help, they should be able to refer you to a pain clinic or neurologist at one of the UK's Centres of Excellence. You can have a chat with your GP about the specialist services that are available to you locally.

Pain Concern takes emails and calls to guide you in the understanding of your condition and can also make suggestions as to where you might find more help: painconcern.org.uk

Further resources for understanding neuropathic pain

The International Association for the Study of Pain (IASP) is an international organisation for pain specialists. They named 2026 their 'Global Year for Neuropathic Pain', producing helpful factsheets on the subject: iasp-pain.org/wp-content/uploads/2026/01/26-002a-Neuropathic-Pain-Definitions-Burden-personal-social-economic-global-Fact-Sheet-R5-FOR-WEB.pdf

The British Pain Society (BPS) website has a section for patients, which includes links to a number of other sites and organisations: britishpainsociety.org/people-with-pain/

Further resources for understanding neuropathic pain treatments

The National Institute of Health and Care Excellence (NICE) guideline on 'Neuropathic pain – pharmacological management in non-specialist settings' (updated in 2019) gives guidance on drug treatments for neuropathic pain with information for the public: nice.org.uk/guidance/cg173

The Faculty of Pain Medicine has produced handy patient information leaflets covering a range of medicines and injections used to treat chronic pain, some of which will be used in patients with neuropathic pain: fpm.ac.uk/patients/patient-info

Pain Concern is a registered charity (SC023559) and company limited by guarantee (SC546994).
0300 102 0162; info@painconcern.org.uk; 62-66 Newcraighall Rd, Edinburgh, EH15 3HS.

Dr Alan Fayaz, MD(Res), MRCP, FRCA, FFPMRCA, is a Consultant in Chronic Pain Medicine, Anaesthesia and Perioperative Care at the University College London Hospitals NHS Foundation Trust. He has a specialist interest in the management of neuropathic pain and pain in the context of neurological diseases.

With thanks to:

Dr John Lee, BSc, MSc, MB BS, FRCP, FRCA, FFPMRCA, a retired Consultant in Pain Medicine, for putting together the first draft of this patient information guide.

The **Shingles Support Society** and **Trigeminal Neuralgia Association UK** for consulting on this guide.

Foundation Scotland for their support in the production of this guide.

Pain Concern is a registered charity (SC023559) and company limited by guarantee (SC546994).
0300 102 0162; info@painconcern.org.uk; 62-66 Newcraighall Rd, Edinburgh, EH15 3HS.