

Neuropathic (Nerve) Pain

Key Points

- Neuropathic (nerve) pain is caused by damage, disease or dysfunction in the nervous system.
- Neuropathic pain can include any or several of the following: shooting, radiating, tingling, crawling, stabbing or burning pain; feeling heat or coldness; pins and needles; electric shocks; numbness.
- In many cases of neuropathic pain, external stimuli that are not normally painful (such as a breeze) can cause pain.
- Untreated pain can have a significant impact on quality of life.
- Medication alone is not the answer; a multimodal approach to treatment is required.
- Pain management is most effective when patients implement pain management strategies in their everyday lives (self-management).

What is neuropathic pain and what does it feel like?

Neuropathic pain, also called nerve pain, is caused by damage, disease or dysfunction that affects the nervous system - nerves, brain and spinal cord.

When nerves are injured or damaged, the nervous system sends spontaneous messages - impulses - through the nerves, to the spine and brain. We then interpret these impulses as pain.

Generally, pain affects either the central nervous system (the brain and spinal cord) or the peripheral nervous system (all the other nerves found outside the central nervous system).

Commonly reported as the most severe form of pain, neuropathic pain is characterised by a range of unpleasant symptoms. It can feel like shooting, radiating, tingling, crawling, stabbing or burning pain; a sensation of heat or coldness; the feeling of pins and needles or electric shocks; or even numbness.

In many cases, you may also experience pain arising from external stimuli that are not normally painful (allodynia). For example, a breeze or light touch, a bed sheet or clothing, may cause a sensation of pain.

Because the nervous system is dynamic, changes in its structure can allow pain messages through to the brain, long after the original source of pain has healed. For example, where nerves are compressed or inflamed for a long time due to chronic low back pain, even after treatment has removed pressure on the nerves, they can continue to send impulses to the brain. This 'pain memory' leads to what is known as 'pain sensitisation', where the nervous system is sending the wrong signals to the brain.

Whatever your pain feels like, it will not always feel like anyone else's pain, even though it may have the same underlying cause. This is because pain is an individual experience, and it depends on many factors including your beliefs, attitudes, coping style, support networks and your environment.

What conditions cause neuropathic pain and who is at risk?

Major causes of neuropathic pain include lumbar radiculopathy (sciatica, where pain radiates down the leg), postherpetic neuralgia (persistent pain after a shingles episode), diabetic neuropathy, HIV-related neuropathy, and persistent post surgical pain.

Neuropathic pain can also result from stroke or spinal cord injury, or from multiple sclerosis (MS) or other condition, or it can be associated with other chronic pain conditions that are classically non-neuropathic conditions (such as osteoarthritis or cancer pain).

Chronic low back pain commonly has a nerve pain component, where compression of the nerves in the lower back leads to pain, and there is a particular kind of neuropathic pain - known as 'phantom pain' - that can result after amputation of a limb.

Sometimes, despite numerous tests and investigations, the cause of neuropathic pain is not known.

General population studies have found that 7 to 8 percent of adults worldwide live with chronic pain with neuropathic characteristics. Aside from having a specific condition, general risk factors include: older age, female gender, physical inactivity and manual occupation. There is also emerging evidence of genetic factors.

How is neuropathic pain diagnosed and can it become chronic?

Neuropathic pain can be difficult to identify because it can be present in an area that has no feeling, and it can cover an unusual area.

It can also be present in conjunction with pain from other causes, such as muscle and joint sprain. This is called 'mixed pain'.

A clinician can usually confirm neuropathic pain by finding evidence of nerve damage – such as reduced or increased sensitivity, altered sensation or pain – in response to light touch.

If your pain has lasted beyond the expected time for healing – usually three to six months – it is called chronic or persistent pain, which is now considered to be a disease in its own right.

In most cases of chronic pain, there is no cure. However, with appropriate management of symptoms, quality of life can be regained.



What is the impact of neuropathic pain and how can it be treated?

Left untreated, pain can lead to devastating impacts on all aspects of life, including interference with sleep, work, exercise, sex, routine self-care, personal relationships, social interactions and lifestyle.

Quality of life is more dependent on the severity of neuropathic pain than on its underlying cause, and this is why treatment to reduce pain is so important.

Because pain is influenced by physical, psychological and social factors, one of the best ways to treat and manage neuropathic pain is with a multimodal approach, a combination of non-medical strategies and possibly prescription medication.

It is important to find a supportive and knowledgeable GP, who can help develop a care plan, which will involve other health professionals, that may include a psychologist, physiotherapist and clinical nurse consultant.

Because there are many different types of neuropathic pain and it is very complex, your doctor may have to trial medications, rotate them or add multiple medications.

One of the most important things you can do to help yourself, is implement self-management strategies. They are usually practised daily, and can include gentle stretching and exercise, yoga, meditation, and learning to pace your activities or work throughout the day.

Strategies to ensure a good night's sleep, a healthy diet, and taking time to develop positive relationships with the people around you, are also important. You may also benefit from joining a pain support group.

Taking control of your pain management is the best way to get back into life.

If you think you may have neuropathic pain, take the pain questionnaire at:
www.morethanmedication.com.au/Health-Conditions/Nerve-Pain/

Terms to know:

- Neuropathic pain simply means pain related to the nervous system.
- Neuropathy relates to the disease or damage to the nerves.
- Neuralgia describes the actual pain in one nerve or several nerves.
- Allodynia is pain from external stimuli that are not normally painful.
- Pain sensitisation is where pain signals are transmitted unnecessarily.
- Self-management strategies are things you do each day to help relieve pain symptoms.

Useful resources

- www.morethanmedication.com.au
- www.painaustralia.org.au
- www.painmanagement.org.au
- www.chronicpainaustralia.org.au
- www.aci.health.nsw.gov.au/chronic-pain