



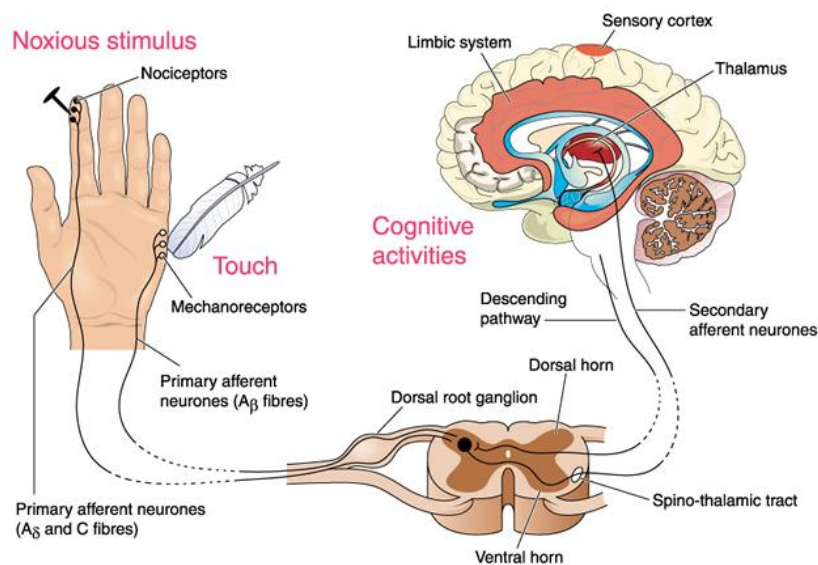
## Neuropathic (Nerve) pain – Patient Information

### What is Neuropathic Pain?

Pain is generally divided into three types – nociceptive, noci-plastic and neuropathic pain.

Nociceptive pain is the pain that all people have at one time or another and is caused by actual or potential damage to the tissues of the body. This may be in the form of a burn, cut or other injury. It may also be caused by a tumour growing within the body which presses on some of the body's organs. The reason that pain is felt is due to the activation of tiny nerve endings which are being damaged by the injury or disease. Pain messages travel via these nerves to the brain. Nociceptive pain is usually described as 'sharp' or 'aching' and can usually be treated with pain medications as paracetamol or NSAIDS.

Neuropathic pain is caused by a problem with the nerves themselves. The nerve(s), having been damaged by an injury or disease, continue to send pain messages to the brain long after the damage has occurred. Neuropathic pain is often described as 'stabbing', 'burning', or like 'electric shocks'. This pain is usually severe and is often difficult to treat. It is thought that 15-20% of people with persistent pain in Australia have neuropathic pain.



Unlike nociceptive pain, neuropathic pain is not as responsive to medication used for pain such as paracetamol. However, it does respond partly to other types of medications such as anti-depressant and anticonvulsant medications. These medications are usually given in smaller doses when used to treat neuropathic pain.



## What are the causes of neuropathic pain?

A variety of conditions can affect the nerves resulting in neuropathic pain including:

- Trauma & Injury
- Spinal Nerve Injury
- Post Herpetic Neuralgia
- Trigeminal Neuralgia
- Multiple Sclerosis
- Phantom Limb Pain
- Diabetic Neuropathy
- Cancer
- Complex Regional Pain Syndrome

## Symptoms of Neuropathic Pain

Neuropathic pain may be described as electric shock like, burning, stinging, shooting or painful pins and needles. People with neuropathic pain may also have the following symptoms:

### 1. Allodynia

Pain occurs or get worse with a touch from something which would not usually cause pain. For example, one can have a feeling of intense pain from the pressure of clothing or bed sheets rubbing against their skin.

### 2. Hyperalgesia

A person may get severe pain from a touch that in normal circumstances would only cause minor pain. For example, banging a knee against a desk or chair may cause severe pain.

## Diagnosis of Neuropathic Pain

A doctor will take a detailed history of the problem and perform a physical examination. People will be asked about the area/s of their pain and give a description of what the pain feels like. The doctor will also ask about any injury, operations or conditions which may be related to the pain.

## Treatment of Neuropathic Pain

### 1. Treat the underlying condition

A doctor or specialist may try and treat the underlying condition to help reduce the pain. This may be possible with certain conditions that cause neuropathic pain such as diabetic neuropathy where better control of a person's diabetes may decrease the neuropathic pain or cancer where shrinking the size of the tumour may decrease neuropathic pain.



## 2. Medication

Traditional pain medication such as paracetamol and NSAIDS are not usually helpful in relieving neuropathic pain. Other classes of drugs are usually more effective and include medications which are not originally designed to treat pain such as antidepressant and anticonvulsant medication.

### - **Antidepressants**

Tricyclic antidepressants: Endep, Dothep & Nortriptyline

When prescribed for the treatment of neuropathic pain, TCAs are given in lower doses than when prescribed for depression. TCAs have a direct effect on the brain, spinal cord and other nerves. Because of their effect on the nervous system they can produce side effects including dry mouth, drowsiness, blurred vision, constipation, and difficulty passing urine. People often find these side effects reduce after a week or two. Starting at a low dose and increasing slowly may reduce the incidence of severe side effects. TCAs need to be taken regularly in order to be effective and unlike other medication used for pain they may take several days to take effect.

### - **Selective noradrenalin reuptake inhibitors (SNRIs): Venlafaxine, Duloxetine**

Venlafaxine has been shown to be as effective as TCAs and may cause fewer side effects for some people. SNRIs are generally not recommended for people under the age of 18 years of age.

Antidepressants should never be stopped suddenly but should be reduced slowly over 4 weeks.

### - **Anticonvulsants**

These drugs are known as membrane stabilisers and work by calming the nerves that become overexcited causing neuropathic pain. Potential side effects include sedation, dizziness, dry mouth, nausea, vomiting & skin rashes.

Newer anticonvulsant medication such as Lyrica or gabapentin have been shown to cause fewer side effects when used to treat nerve pain. However older anticonvulsant agents such as carbamazepine is useful in treating trigeminal neuralgia.

As with antidepressant medication, anticonvulsant medication needs to be taken regularly, should be increased slowly to reduce potential side effects and may take a few days before they start to take effect.



Anticonvulsant medication should never be stopped suddenly but reduced slowly under the supervision of a doctor.

## - **Opioids**

Opioids such as tramadol, methadone or Palexia, may have some effect on neuropathic pain in low dose, and in combination with the above-mentioned medications. However, in general these drugs are more useful for other types of pain that is not due to nerve damage.

Potential side effects include sedation, nausea, vomiting, constipation and itching.

## **How Effective are these Medications?**

Nerve pain is very difficult condition to treat and the best result from medication is usually only in the region of 30-50% reduction in pain, with a combination of medications from various drug classes required to get the best result.

Most people find that they need to work with their doctor in order to get the right balance of pain relief versus side effects and they may need to trial different agents within the same class before they find the best result for their nerve pain. As neuropathic pain is a chronic condition it is expected that these drugs may need to be taken long term.

## **Physical Treatments**

Depending on the area and cause of the neuropathic pain, a pain specialist may recommend other treatment such as physiotherapy, nerve blocks, or a TENS machine.

## **Psychological Treatment**

Persistent nerve pain often causes people to have feelings of depression and anxiety. Many people report that their pain also disturbs their sleep and interferes with their quality of life. Working with a psychologist to talk through feelings associated with the pain and to develop stress management and relaxation strategies can be very useful. Cognitive behavioural therapy or a pain management program run by a pain clinic can help a person better manage their neuropathic pain.