

Trigeminal neuropathic pain

This leaflet has been written by a European team who belong to EFIC, a multidisciplinary professional organisation who are involved in pain management and pain research.

It is intended for use by patients (or their family and carers) in discussion with their local specialists. It is not intended to replace discussion with your specialist.

The aim of the leaflet is to provide information about trigeminal neuropathic pain.

What is trigeminal neuropathic pain?

Trigeminal neuropathic pain is a type of persistent pain, confined to an area of the mouth or face which is supplied by the trigeminal nerve. This nerve provides sensation (feeling) to the face and mouth and also allows movement of the muscles which close the jaw. Trigeminal neuropathic pain is:

- related to some form of damage (neuropathy) of the trigeminal nerve
- often described as tingling, burning, stinging or pins and needles
- very commonly associated with an area of numbness or reduced sensation (feeling)
- usually localised to a specific area within the mouth or the face and can be often be made worse by touching the area, even lightly (such as face washing or teeth brushing)
- usually persistent, with little change in the intensity of the pain. It is unusual for the pain to get progressively worse over time.

Trigeminal neuropathic pain is not the same as trigeminal neuralgia. These are different conditions and are managed differently.

Who gets trigeminal neuropathic pain?

Trigeminal neuropathic pain is a relatively rare condition. Persistent pain following nerve damage is surprisingly rare, despite the causes of nerve injury being relatively common.

Trigeminal nerve damage can occur during dental infections and dental treatments such as tooth extractions and root canal treatments. However, few people develop any lasting problems.

Rarely, an injury to the face can also result in pain and numbness.

Although this condition affects any age group it is more common in older people. The reason for this is not clear, but may be due to a higher incidence of conditions which can cause nerve damage in this age group. Both men and women can be affected – although women are thought to have a higher risk.

What causes trigeminal neuropathic pain?

In order to develop trigeminal neuropathy there has to be damage to the trigeminal nerve. Often, the cause of the damage will be obvious; sometimes the cause may not be found.

There are a wide range of potential causes of trigeminal neuropathic pain, including:

- Surgical procedures (such as corrective jaw surgery, dental extractions, root canal treatments or surgery to the trigeminal nerve)
- Trauma(for example facial injuries, fractures of the facial bones or jaws)
- Infections (such as shingles or dental abscesses)
- Underlying inflammatory diseases (for example connective-tissue diseases or diabetes)

Often neuropathic pain starts immediately following nerve damage, although occasionally there may be a slight delay or a gradual build up of the symptoms over time.

Usually, following injury to the trigeminal nerve, the damaged part of the nerve will stop sending pain signals to the brain. In the case of trigeminal neuropathic pain the damaged nerve continues to send pain signals to the brain.

It is thought that changes may occur within the brain over time which increases the way pain is experienced. This is called central sensitisation.

What are the effects of living with trigeminal neuropathic pain?

Living with ongoing physical symptoms can be a challenge. Some people find their symptoms do not have a major impact on their life, although they may find them annoying or frustrating. Others find it more difficult to continue with everyday activities and can find the symptoms very distressing. If you find your symptoms are causing you to feel low or interfere with your day to day activities, you may find it helpful to discuss this with your doctor.

What treatments are available?

Trigeminal neuropathic pain is usually a long-term condition. It is unlikely that any treatments will completely remove the symptoms. Therefore treatment focuses on reducing symptoms and helping you to manage the condition.

Medications

Medications used for neuropathic pain can be useful for many people. These medications are also used in conditions such as depression or epilepsy but have been shown to help trigeminal neuropathic pain. Medications rarely provide complete relief but can reduce the intensity and severity of the symptoms.

Some people benefit from the use of local anaesthetic preparations. These reduce the sensitivity of painful areas of the face or mouth and are applied as a topical gel or sticky plaster over the painful area.

Non-medical treatments

As this condition can be long-term, it may be helpful to think about what you can do to cope with the symptoms. Pain can feel worse and be harder to cope with when people feel low, worried or stressed. Pain clinical psychologists can support you to help manage your pain and reduce its negative impact on you and your life.

References

National Institute for Health and Clinical Excellence (2010). CG96 Neuropathic pain – pharmacological management: understanding NICE guidance. (Can be found online at: www.nice.org.uk/cg96)

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Smith JH, Cutrer FM (2011). Numbness matters: A clinical review of trigeminal neuropathy. *Cephalalgia*; 31(10) 1131–1144

Zakrzewska JM (2010). Medical management of trigeminal neuropathic pains. *Expert opinion on pharmacotherapy*; 11(8):1239-1254.

Further information

Website of the Neuropathy Trust: <http://www.neurocentre.com>

Online support for chronic pain patients: <http://www.paintoolkit.org>

Based on material produced by facial pain team University College Hospitals NHS Foundation Trust

