

Patient information

Trigeminal Neuralgia

Liverpool University Dental Hospital

What are the aims of this leaflet?

This leaflet has been written to help you understand more about trigeminal neuralgia. It tells you what it is, what causes it, what can be done about it, and where you can find out more about it.

What is trigeminal neuralgia?

Trigeminal neuralgia is a condition that affects the trigeminal nerve, one of the large nerves of the face and mouth. This condition causes sudden attacks of very severe pain on one side of the face. The pain is usually sharp, stabbing or electric shock-like, and may be triggered by touching the face, shaving, chewing or tooth brushing.

The painful attacks usually last from a fraction of a second to a few minutes and can occur several times a day for days, weeks or months at a time. Some people experience a constant dull ache between episodes of pain. It is also possible for the pain to disappear completely and not reoccur for months or years. Trigeminal neuralgia is more common in women than men, and usually occurs in people over 50 years of age.

What causes trigeminal neuralgia?

In many cases, the cause of trigeminal neuralgia is unknown. However, in some people the symptoms may be due to a blood vessel pressing on the trigeminal nerve in the skull. This causes pain and stops the nerve working properly. Trigeminal neuralgia symptoms, in rare cases, may be due to diseases such as multiple sclerosis or a tumour pressing on the nerve.

Is trigeminal neuralgia hereditary?

Rarely, trigeminal neuralgia may occur in members of the same family.

What are the symptoms of trigeminal neuralgia?

Trigeminal neuralgia is characterised by repeated attacks of severe, sharp, shock-like pain in the face or mouth. Attacks usually last from a few seconds to two minutes and can occur spontaneously (for no reason) or can be triggered by light touch, speaking, eating, shaving, hair brushing or tooth brushing, head movements or a cool breeze.

You may find that there are particular '**trigger zones**' on your face or in your mouth, and that touching these areas causes an attack to occur. Trigeminal neuralgia usually only affects one side of the face but in rare cases can be bilateral (both sides).

The pain can be in the lower jaw, upper jaw, cheek, and less often the eye and forehead depending on which branch of the trigeminal nerve is affected.

What does trigeminal neuralgia look like?

There are no outward physical signs of this condition. People with trigeminal neuralgia can have a normal looking, healthy face and mouth. The lack of outward signs of this condition can make it hard for others to understand this condition.

How is trigeminal neuralgia diagnosed?

There is no diagnostic test for trigeminal neuralgia; the diagnosis relies largely on your description of your symptoms. Radiographs (X-rays) of the teeth or jaw may be taken to help rule out other reasons for the pain and sometimes blood tests may be required.

Your specialist may also recommend a MRI (magnetic resonance imaging) scan to assess whether the disorder has been caused by a blood vessel pressing on the nerve and to rule out any other causes for the pain.

Can trigeminal neuralgia be cured?

There is no cure for trigeminal neuralgia, but there are many options available to control the pain. The disease can also become dormant for long periods, or may disappear altogether without any specific treatment.

How can trigeminal neuralgia be treated?

Initial treatment for trigeminal neuralgia is usually with medicines to control the painful attacks.

- Common pain relief drugs like paracetamol or ibuprofen have not been found to be useful in the treatment of trigeminal neuralgia, nor very strong drugs such as morphine.
- The most effective medicines to treat trigeminal neuralgia are anti-convulsants similar to those used to treat epilepsy. To be effective, these medications must be taken all the time not just when pain is present. The most commonly used medication is called carbamazepine. This medication is successful in controlling the symptoms of trigeminal neuralgia in six out of ten people. It has side effects, most commonly dizziness, drowsiness and difficulties with memory and concentration. Blood monitoring is also required to assess the effects of the drug on the liver and on blood.
- Oxcarbazepine, a closely related drug with potentially fewer side effects is used in some patients who are unable to tolerate carbamazepine. Other anti-convulsant medications used in the treatment of trigeminal neuralgia include, gabapentin, pregabalin, or lamotrigine. Some people find a combination of different medications works best to reduce their symptoms.
- Other types of medications used to treat trigeminal neuralgia include baclofen (used to relax the muscles) and topical capsaicin cream.
- In prolonged severe attacks of pain, a local anaesthetic injection (similar to those given by dentists) into the trigger area may provide some relief for a few hours and allow the other drugs to work more effectively.

- Your family doctor (GP) will be able to advise you as to the best type of treatment initially but if this is not effective you will need a referral to a specialist in Oral Medicine or Neurology.

Surgical treatment

If the drugs are not effective you will need a referral to a neurosurgeon who may be able to provide more effective treatments. If a MRI scan shows that there is a blood vessel pressing on the nerve, you may be offered an operation to decompress the nerve inside the skull, called microvascular decompression.

In other instances operations to destroy part of the nerve are possible and include:

- Percutaneous techniques which all involve a needle or catheter entering the face up to the origin where the nerve splits into three divisions and then damaging this area, purposely, to produce numbness but also stop pain signals.
- Balloon compression - inflation of a balloon at this point causing damage and stopping pain signals.
- Glycerol rhizotomy - deposition of a liquid called glycerol at this point causes damage to the nerve to hinder pain signals.
- Radiofrequency thermocoagulation rhizotomy - application of a heated needle to damage the nerve at this point.
- Stereotactic Radiosurgery ("Gamma Knife Surgery") is "a form of radiation therapy that focuses high-power energy on the trigeminal nerve in the brain.

What can I do?

Maintain good oral hygiene and visit your dentist regularly to prevent any tooth decay which may exacerbate your trigeminal neuralgia.

If you cannot brush your teeth use an antibacterial mouthwash such as chlorhexidine. (Corsodyl).

- If you can identify the activities that trigger an attack of trigeminal neuralgia, you can take steps to avoid those triggers. You may consider measures such as covering your face when going out in cold weather, drinking through a straw to avoid touching a trigger zone in your mouth, and avoiding very hot or very cold foods and drinks.
- You can apply a pea size amount of lidocaine cream (bought over the counter in a pharmacy) to the trigger area.
- When you have been started on a medication for trigeminal neuralgia, or the dose of your medication has been changed, it is a good idea to keep a pain diary, so that you can record your progress. This will help you and your specialist to decide whether you are on the most effective treatment.

- You can record the severity of your pain, how often you are having attacks, any medication side effects and the dose of medication you are taking. It is important to start medication at a low dose and increase slowly.
- If you find that you are feeling sad or unable to cope with your condition, you should seek professional help. It is common for people with chronic pain conditions to develop a low mood, and there is treatment available to help.

Where can I get more information about trigeminal neuralgia?

Trigeminal Neuralgia Association UK (<http://www.tna.org.uk>)

Email Address: help@tna.org.uk

Telephone: 0800 999 1899

<https://www.brainandspine.org.uk/health-information/trigeminal-neuralgia/>

Not all of this information will be relevant to all patients. For individual advice please see your Oral Medicine specialist.

Feedback

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

Further Information

If you need any further information please contact the Liverpool University Dental Hospital

Tel: 0151 706 5060

Text phone number: 18001 0151 706 5060

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