CONDITION

Trigeminal neuralgia

Trigeminal neuralgia causes sudden, severe, electric-shock-like pain on one side of the face.

WHAT IT IS
Recurrent nerve pain affecting one side of the face

BODY SYSTEM
Nervous system

MAIN SYMPTOMS
Electric-shock facial pain, one-sided attacks, touch-triggered pain

WHAT CAUSES IT
Usually blood vessel pressure; sometimes another condition or unknown

HOW IT IS DIAGNOSED
Symptom pattern, nerve examination, and brain MRI

MAIN TREATMENT
Anti-seizure medicines, with procedures when needed

CAN IT BE CURED?
Sometimes - procedures can provide lasting relief

IS IT AN EMERGENCY?
Sometimes - with stroke signs or sudden severe headache

LONG-TERM OUTLOOK
Recurrent attacks, often controlled with treatment

Overview

Trigeminal neuralgia is a long-term pain condition affecting the trigeminal nerve. This nerve carries sensations such as touch, pain, and temperature from your face to your brain. It also helps control some chewing muscles.

The condition causes sudden bursts of intense facial pain. People often describe the pain as an electric shock, stabbing sensation, or jolt. It usually affects only one side of the face.

Trigeminal neuralgia is also called tic douloureux. "Tic" refers to the facial movements that severe attacks can sometimes cause.

Although each burst may last only seconds, attacks can happen repeatedly. Everyday actions such as eating, speaking, washing your face, or feeling a breeze may trigger them. This can

affect nutrition, sleep, work, relationships, and emotional wellbeing.

Trigeminal neuralgia is not usually life-threatening. However, facial pain can have many causes, so a new or changing pain pattern should be medically assessed.

Symptoms

The main symptom is sudden, severe pain in an area supplied by the trigeminal nerve. This commonly includes the cheek, jaw, teeth, gums, lips, or the area around the nose. Pain in the forehead or around the eye is less common.

Typical features include:

Common triggers include chewing, talking, swallowing, brushing your teeth, shaving, applying makeup, smiling, or washing your face. Cold air or a light breeze may also start an attack.

Some people have a mild ache, burning feeling, or pressure between attacks. In others, a more continuous background pain develops alongside the sudden shocks. This is called trigeminal neuralgia with continuous pain.

Periods of frequent attacks may last days, weeks, or months. They may be followed by a remission, when pain becomes less frequent or stops for a time.

Persistent numbness, facial weakness, hearing changes, balance problems, or pain on both sides are not the usual pattern. These symptoms do not necessarily mean something serious, but they need assessment because they may point to another cause.

- Electric-shock, shooting, stabbing, or burning pain
- Attacks lasting from a fraction of a second to about two minutes
- Repeated attacks close together, sometimes in volleys
- Pain mainly on one side of the face
- Attacks triggered by light touch or normal facial movements

Causes and risk factors

In classical trigeminal neuralgia, a blood vessel presses against the trigeminal nerve near where it enters the brainstem. The brainstem is the lower part of the brain that connects with the spinal cord.

Repeated pressure may damage the nerve's protective coating, called myelin. This can make the nerve send pain signals in response to harmless sensations such as light touch.

Secondary trigeminal neuralgia is caused by another condition affecting the nerve. Possible causes include multiple sclerosis, a condition that damages myelin, and less commonly a tumour, blood vessel abnormality, or other structural problem.

When no clear cause is found, it is called idiopathic trigeminal neuralgia. "Idiopathic" means the cause is unknown.

The condition is more often identified in people over 50, although it can occur at any age. Symptoms beginning at a younger age, affecting both sides, or occurring with numbness may make clinicians look more closely for an underlying cause such as multiple sclerosis.

Trigeminal neuralgia is not usually inherited. Rare family cases have been reported, but most people do not have an affected relative.

Diagnosis

There is no blood test that confirms trigeminal neuralgia. Diagnosis is based mainly on the pattern of pain, its location, its triggers, and the findings from a neurological examination.

You may be asked:

The examination may include testing facial sensation, jaw strength, reflexes, eye movements, hearing, and balance.

A brain MRI is usually used to look for pressure on the nerve and to check for other causes, such as multiple sclerosis or a growth. Special MRI images may show where a blood vessel touches or compresses the trigeminal nerve. A normal MRI does not always rule out the condition.

Dental problems, temporomandibular joint disorders, sinus conditions, migraine, cluster headache, shingles, and other nerve pain can cause facial symptoms. Dental assessment may be useful when pain appears to come from a tooth, but repeated dental procedures should be avoided if no dental cause has been found.

Blood tests may be needed before or during treatment. These help check whether certain medicines are safe for you; they do not diagnose trigeminal neuralgia.

- Where the pain occurs and whether it is one-sided
- How long each attack lasts
- What the pain feels like
- Whether touch, chewing, talking, or cold air triggers it
- Whether you have numbness, weakness, vision changes, or other symptoms

Treatment and management

Treatment aims to reduce attacks while limiting side effects. The best approach depends on your pain pattern, MRI findings, general health, and response to earlier treatment.

Ordinary painkillers often do not work well because attacks are brief and caused by abnormal nerve signals.

Anti-seizure medicines are the main treatment. They calm electrical activity in nerves. Carbamazepine is commonly used first, while oxcarbazepine is another established option. Other medicines may be considered when these are unsuitable or do not give enough relief.

These medicines can cause dizziness, sleepiness, nausea, poor coordination, or difficulty concentrating. Some can affect sodium levels, the liver, or blood cells. Blood tests and medication reviews may therefore be needed. Interactions with other medicines are also possible.

Do not stop an anti-seizure medicine suddenly unless a clinician has told you how to do so. A planned, gradual change is usually safer.

If medicine does not control the pain, causes difficult side effects, or becomes less effective, a specialist may discuss a procedure. Options include:

Procedures can provide substantial or lasting relief, but pain may return. Possible risks include facial numbness, altered sensation, hearing problems, or surgical complications. Rarely, a person develops painful numbness called anaesthesia dolorosa.

When another condition is causing the neuralgia, treatment may also address that condition.

- Microvascular decompression: An operation that moves or cushions a blood vessel pressing on the nerve. It aims to treat the source of classical trigeminal neuralgia without deliberately damaging the nerve.
- Stereotactic radiosurgery: Focused radiation is directed at the nerve. Relief may take time to develop.
- Percutaneous procedures: A needle or small tube is passed through the cheek to reach the nerve. Heat, pressure from a balloon, or an injected substance is used to interrupt pain signals.

Complications

Frequent attacks can make eating, drinking, speaking, or cleaning your teeth difficult. Some people lose weight, become dehydrated, or develop dental problems because they avoid food,

drinks, or oral care.

Fear of triggering pain may lead to social withdrawal and reduced activity. Sleep problems, anxiety, and depression can occur, especially when pain is poorly controlled. Emotional effects deserve the same attention as physical symptoms.

Medicines may cause ongoing side effects or interact with other treatments. Procedures can result in facial numbness, reduced corneal sensation, or other nerve changes. Reduced sensation around the eye matters because it can make an eye injury harder to notice.

Unnecessary dental treatment is another possible harm. Teeth may be removed when facial nerve pain is mistaken for toothache, without relieving the attacks.

Prevention

There is no proven way to prevent trigeminal neuralgia from developing. In most cases, it is not caused by anything you did.

Once you have symptoms, taking prescribed medicine consistently may help prevent attacks. A pain diary can help identify triggers and show whether treatment is working.

Avoiding a known trigger may be useful, but severe restriction can create other problems. You should not have to stop eating properly, drinking enough, cleaning your teeth, or leaving home. If normal activities are becoming difficult, treatment needs review rather than ever-increasing avoidance.

There is no established diet, supplement, exercise plan, or complementary therapy that prevents the condition. Any complementary treatment should be discussed alongside standard care, especially if it involves supplements that could interact with medicines.

Living with it and what to expect

The course of trigeminal neuralgia is unpredictable. Some people have long remissions. Others have recurring clusters of attacks, or pain that becomes harder to control over time. It is not possible to predict an individual course from the first episode.

Medicines often reduce attacks, but doses or treatments may need review over the months and years. The aim is to find a balance between pain control and side effects. Never adjust or stop treatment on your own because pain has temporarily settled.

A pain diary can record attack frequency, location, triggers, background pain, and possible side effects. This information may make follow-up appointments more useful.

During a flare, softer foods, lukewarm drinks, a scarf in cold wind, and gentle oral care may reduce triggers. Maintaining nutrition and hydration remains important. A dentist can suggest ways to protect your teeth if brushing is difficult.

Many people continue working, exercising, travelling, and maintaining relationships once symptoms are controlled. Flexible routines may be needed during flares. Support for sleep, mood, and coping with unpredictable pain can also improve day-to-day life.

Routine follow-up is important if attacks return, medicines lose effect, or side effects interfere with daily activities. Specialist review may be appropriate when the diagnosis is uncertain or a procedure is being considered.

When to get medical help

Arrange a routine medical appointment if you develop repeated, shock-like facial pain, particularly when touch or chewing triggers it. You should also seek review if a diagnosed pain pattern changes, attacks become more frequent, or treatment is no longer controlling them.

Ask for prompt medical advice if you develop new persistent facial numbness, weakness, hearing changes, balance problems, or pain on both sides. Difficulty eating or drinking because of repeated attacks also needs timely help.

Seek urgent same-day assessment for facial pain with a blistering rash near the eye, a red painful eye, or new vision changes. These symptoms may have a different cause that needs rapid treatment.

Call emergency services if facial pain occurs with:

Severe, recurring pain can sometimes lead to hopelessness or thoughts of self-harm. If you feel you may act on these thoughts, contact emergency services or a crisis service immediately.

- A drooping face, arm weakness, speech difficulty, or other stroke signs
- A sudden, extremely severe headache unlike your usual symptoms
- Sudden loss of vision, collapse, confusion, or a seizure

Common questions

Is trigeminal neuralgia caused by bad teeth?

No, but the pain can feel as if it comes from a tooth or gum. A dental examination may be

needed to rule out decay, infection, or a cracked tooth. If no dental problem is found, removing or treating teeth will not usually relieve nerve pain.

How long does a trigeminal neuralgia attack last?

An individual burst usually lasts from a fraction of a second to about two minutes. Bursts may repeat rapidly, making an episode feel much longer. Some people also have a continuous ache or burning sensation between attacks.

Can trigeminal neuralgia go away on its own?

Pain can stop during a remission, sometimes for months or longer. This does not always mean the condition has permanently gone away, and attacks may return. New facial pain should still be assessed rather than waiting for it to settle.

Does stress cause trigeminal neuralgia?

Stress does not appear to be the underlying cause. It may make pain harder to cope with, disrupt sleep, or seem to increase attacks in some people. Stress management can support wellbeing, but it does not replace medical treatment.

Is surgery a permanent cure?

A procedure can provide long-lasting relief, especially when a blood vessel is clearly compressing the nerve. No procedure guarantees a permanent cure, and pain can return. Each option also has different risks, including facial numbness.

Can I eat and exercise normally?

Most people can remain active. During a flare, chewing or cold air may trigger pain, so temporary adjustments can help. If pain prevents you from eating, drinking, cleaning your teeth, or exercising safely, seek a treatment review.

Sources

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