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**Faculty of Basic Medical Science**

# Trigeminal Neuralgia

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**Abstract:**

in this report we will discuss Trigeminal neuralgia symptoms , causes, triggers and how it can be treated

**Introduction:**

[Trigeminal neuralgia](https://www.webmd.com/brain/trigeminal-neuralgia-tic-douloureux) is an ongoing pain condition that affects certain nerves in your face. You might also hear it called “tic douloureux.” People who have this condition say the pain might feel like an electric shock, and it can sometimes be intense. There are about [12 cases per 100,000 people](http://www.ninds.nih.gov/disorders/trigeminal_neuralgia/detail_trigeminal_neuralgia.htm) in the United States each year. (1)

**Discussion:**

There are two separate trigeminal nerves, one on each side of the face. These nerves are responsible for carrying the sensation of pain and other sensations from the face to the brain. Each nerve has three branches (forehand, midface, and chin). It’s possible to have TN of any (or all) branches. TN causes intense pain in part or all of the face. The pain can be brought on by mild stimulation of the face, such as brushing your teeth or shaving. It’s often described as feeling like electric shocks or stabbing. People with TN may initially have short, mild instances of pain, but over time they may experience longer, more frequent attacks of intense pain. Most people with TN experience symptoms of these patterns like Episodes of severe, shooting or jabbing pain that may feel like an electric shock, chewing, speaking or brushing teeth Bouts of pain lasting from a few seconds to several minutes Episodes of several attacks lasting days, weeks, months or longer some people have periods when they experience no pain Constant aching, burning feeling that may occur before it evolves into the spasm-like pain of trigeminal neuralgia Pain in areas supplied by the trigeminal nerve, including the cheek, jaw, teeth, gums, lips, or less often the eye and forehead Pain affecting one side of the face at a time, though may rarely affect both sides of the face Pain focused in one spot or spread in a wider pattern Attacks that become more frequent and intense over time Spontaneous attacks of pain or attacks triggered by things such as Shaving, Touching your face, Eating, Drinking, Brushing your teeth, Talking, Putting on makeup, Encountering a breeze, Smiling, Washing your face, (2) In trigeminal neuralgia, also called tic douloureux, the trigeminal nerve's function is disrupted. Usually, the problem is contact between a normal blood vessel in this case, an artery or a vein and the trigeminal nerve at the base of your brain. This contact puts pressure on the nerve and causes it to malfunction. Trigeminal neuralgia can occur as a result of aging, or it can be related to multiple sclerosis or a similar disorder that damages the myelin sheath protecting certain nerves. Trigeminal neuralgia can also be caused by a tumor compressing the trigeminal nerve. Some people may experience trigeminal neuralgia due to a brain lesion or other abnormalities. In other cases, surgical injuries, stroke or facial trauma may be responsible for trigeminal neuralgia. Because of the variety of treatment options available, having trigeminal neuralgia doesn't necessarily mean you're doomed to a life of pain. Doctors usually can effectively manage trigeminal neuralgia with medications, injections or surgery.  Doctors usually prescribe carbamazepine (Tegretol, Carbatrol, others) for trigeminal neuralgia, and it's been shown to be effective in treating the condition. Other anticonvulsant drugs that may be used to treat trigeminal neuralgia include oxcarbazepine (Trileptal), lamotrigine (Lamictal) and phenytoin (Dilantin, Phenytek). Other drugs, including clonazepam (Klonopin) and gabapentin (Neurontin, Gralise, others), also may be used. If the anticonvulsant you're using begins to lose effectiveness, your doctor may increase the dose or switch to another type. Side effects of anticonvulsants may include dizziness, confusion, drowsiness and nausea. Also, carbamazepine can trigger a serious drug reaction in some people, mainly those of Asian descent, so genetic testing may be recommended before you start carbamazepine. **Antispasmodic agents.** Muscle-relaxing agents such as baclofen (Gablofen, Lioresal) may be used alone or in combination with carbamazepine. Side effects may include confusion, nausea and drowsiness. **Botox injections.** Small studies have shown that onabotulinumtoxinA (Botox) injections may reduce pain from trigeminal neuralgia in people who are no longer helped by medications. However, more research needs to be done before this treatment is widely used for this condition. If the medication doesn’t help then the surgery is the other option in brief **Microvascular decompression.** This procedure involves relocating or removing blood vessels that are in contact with the trigeminal root . **Brain stereotactic radiosurgery (Gamma knife).** In this procedure, a surgeon directs a focused dose of radiation to the root of your trigeminal nerve (3)

**Conclusion:**

Trigeminal neuralgia is a very painful disorder. However, it is not fatal. Pain episodes tend to occur for a period, then stop, and then often recur again. Many patients experience relief with medications, and others receive relief from surgery.

**References:**

1. WebMD Medical Reference Reviewed by Laura J. Martin, MD
2. Riggs EA. Allscripts EPSi. Mayo Clinic, Rochester, Minn. March 28, 2017.
3. Crucci G. Trigeminal neuralgia. Continuum. 2017;23:396.