# Face pain

*A guide for patients and carers*

*A Brain and Spine Disorders Booklet*

Brain & Spine Foundation

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## Brain and Spine Foundation

*The Brain and Spine Foundation aims to improve the quality of life for people with neurological disorders and to reduce neurological disability by providing a national focus for research, education and information.*

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# Contents

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**Brain and Spine Foundation, 2002**

# Introduction

This booklet is intended to provide general information about chronic face pain. It has been written to answer some of the questions asked by people who are affected by some of the more severe and persistent forms of facial pain, as well as for their families and carers.

However, because there are a number of different causes of chronic face pain and because each person is affected differently, it is important that you speak to your own GP or to the doctor or nurse who is looking after you, since they are in a position to offer advice and information to meet your own specific needs. Sometimes there is a dental cause for the pain and so you may also need to see a dentist.

Note: Words printed in **bold** are explained in the glossary on page 22.

# Trigeminal neuralgia

**Neuralgia** is a word meaning nerve ("neur...") pain ("...algia"). There are two **trigeminal nerves**, one of which supplies sensation to the right and the other to the left side of the face. They both have three branches (hence "tri..."). The first of these supplies the forehead, the second the cheek and the third the jaw. Doctors sometimes refer to these branches as divisions. People with trigeminal neuralgia suffer **chronic** pain on one side of the face in one or more of these branches of the trigeminal nerve.

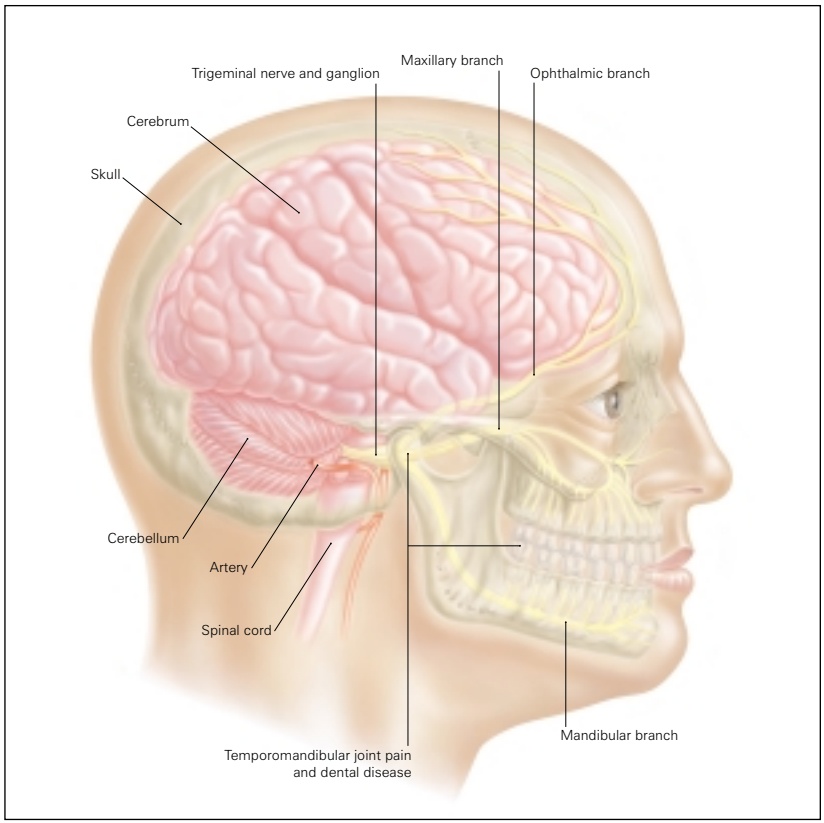



***Figure 1: Diagram showing the nerves and structures in the head that are involved in face pain***

## What are the symptoms?

The pain usually only affects one side of the face. It can be felt on the skin or in the mouth and teeth. It comes and goes suddenly and unpredictably. Words often used to describe this sort of pain are: stabbing, lacerating, electric shock-like and shooting, and it can range in severity from a mild to a violent and excruciating pain. Each burst of pain lasts for only a few seconds, but there can be many of these bursts of pain in quick succession. The pain commonly affects the jaw and cheek area, but it may cover the whole of one side of the face. There are frequently "trigger points" on the skin, which if touched will bring on a violent **spasm** of pain. The pain may be brought on by cleaning the teeth, washing the face, shaving, hot or cold drinks, talking, or even the wind.

Attacks of pain may come and go at first with long periods of relief occurring between them. People may experience pain every day for weeks or months and then it may disappear completely for months or even years. For many, these attacks become more frequent and last longer as time goes on. For some, the pain shoots continuously.

Trigeminal neuralgia will not clear up of its own accord, and whilst there may be long pain-free periods in the early stages, the condition is a permanent one unless effective treatment is received.

The early symptoms can take many different forms, so trigeminal neuralgia can be difficult to identify at first. Many people have extensive treatment from their dentist or others, before the diagnosis eventually becomes apparent. However, the condition is not caused by dental treatment.

## Who does it affect?

Trigeminal neuralgia can affect people of all ages, though it very rarely occurs in children. It is more common in the older age groups than in young adults and it is twice as common in women as men. It affects the right side of the face twice as frequently as it does the left

and it very rarely affects both sides. It is not hereditary. It is estimated that one in every 1,000 people may be affected by or have had trigeminal neuralgia.

## What causes trigeminal neuralgia?

The cause of the majority of cases of trigeminal neuralgia has not been conclusively established. Different theories suggest that the underlying problem lies within the brain, the nerves inside the head or the nerve as it passes through the face. Currently, the most popular theory is that a blood vessel presses on the trigeminal nerve as it emerges from the base of the brain inside the skull. This is known as vascular compression. The compression causes the insulating material, called **myelin**, around the nerves to be broken down, so that the brain thinks that a light touch on the face is a painful sensation. Many neurosurgeons believe that this is the most widespread cause of trigeminal neuralgia, but there are others who disagree.

Of the less than five per cent of cases of trigeminal neuralgia where a clear cause is confirmed, a **tumour** (which is nearly always **benign**), or infected tissue is found to be pressing on the nerve. The condition occasionally affects people with established **multiple sclerosis**, though it is virtually never their first symptom. In other words, if you have trigeminal neuralgia there is no reason to suspect that you may be developing multiple sclerosis or any other serious condition.

## How is it diagnosed?

Because the nerves function normally and there is no test which can prove that the condition is trigeminal neuralgia, the doctor has to rely totally on an accurate description of the symptoms and a careful examination. They also need to rule out other possible causes of facial and **oral** pain. These include problems with the teeth, mouth, ears, skull and the glands around the mouth and face, so these areas will be carefully examined and you may be advised to see a dentist.

Cluster headaches, or migrainous neuralgia, can produce very similar symptoms to trigeminal neuralgia, so the doctor may also need to rule this out (see the Brain and Spine Foundation's *Headache* booklet for more information on cluster headaches).

A brain scan may be carried out to rule out the possibility that a **lesion** or **tumour** in the head could be putting pressure on the nerves. Some neurosurgeons believe that developments in the technique of **MRI** scanning may enable them to detect the blood vessels thought to be responsible for the majority of cases of trigeminal neuralgia. However, these new methods are still the subject of research. These blood vessels cannot accurately be seen using standard MRI scanning methods, so in many cases of true **primary** trigeminal neuralgia, the scan will not usually reveal any abnormalities.

## What medicines are available?

The commonest and one of the most effective drugs available to treat this condition is carbamazepine (Tegretol). This is a well-established **anticonvulsant** drug that was originally developed for the treatment of **epilepsy**. It works by dampening the activity in excitable nerves.

Carbamazepine may cause a rash in around seven per cent of users, and you should let your doctor know if this happens to you. There are also a number of other rarer side effects that should be discussed with your doctor before you start taking carbamazepine. Carbamazepine interferes with the action of many other drugs, so it is important that anyone treating you knows that you are taking it.

Regular blood tests are required when you first start to take carbamazepine and it may be necessary to take large quantities of the drug and increase the dosage over time. Its main side effects are drowsiness, lack of concentration and unsteadiness. Because of this, some people don't take the full dose, and this results in pain breaking through. However, for 75 per cent of people carbamazepine is an effective treatment.

Gabapentin (neurontin), a new drug, has been tried extensively in post-herpetic neuralgia but there are only a few reports of its use in trigeminal neuralgia. It is however used frequently because although it is less effective than carbamazepine, it causes less side effects.

Baclofen is a muscle relaxant. It is usually used in combination with carbamazepine or phenytoin and is effective in the early stages of the condition. A range of doses may be used.

Lamotrigine has been found to be effective when added to carbamazepine. Lamotrigine has to be started at a low dose and gradually increased if the principal side effect of a rash is to be avoided.

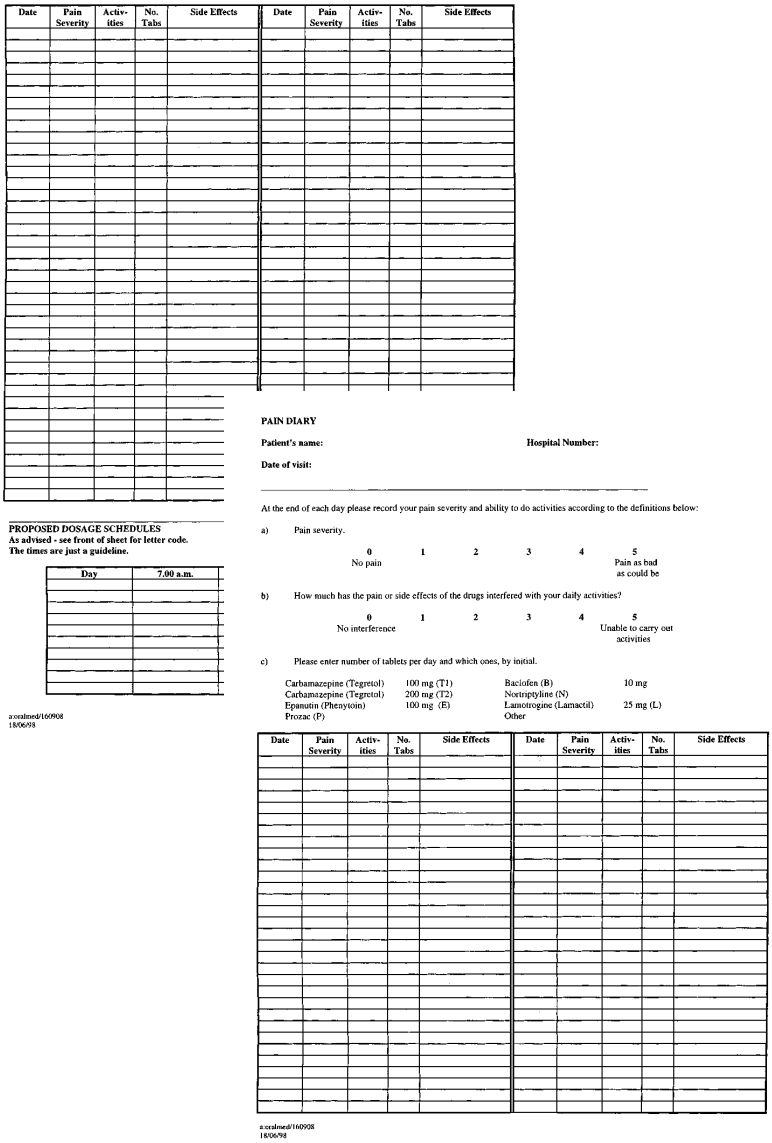
Phenytoin (Epanutin), sodium valproate (Epilim) and clonazepam (Rivotril) are anti-epileptic drugs that may be used instead of or in combination with carbamazepine. They may not be as effective, but they are useful if you cannot take carbamazepine.

Although only recently licensed for use in the UK, oxcarbazepine (Trileptal) has been used extensively in other countries. It has similar properties to carbamazepine but causes fewer side effects. It has become the drug of choice in the Scandinavian countries.

The dosage of these drugs can be tailored to individual needs and is likely to be increased over time. This is because unfortunately, the pain tends to become more severe. Only you know how much pain you feel, and because of this you should take control by making sure you take the prescribed dosage and also by monitoring how well the pain responds to the dosage you are on. A good way to do this is to keep a daily "pain diary" (*see figure 2*) which you can then show to your doctor.

## What about surgery?

Drugs are the best initial form of treatment if they are controlling the pain. However, where the drugs fail to give relief or where they cause unacceptable side effects, the option of surgery may need to



| Date | Pain Severity | Activ-ities | No. Tabs | Side Effects |
|---|---|---|---|---|
| | | | | |

| Date | Pain Severity | Activ-ities | No. Tabs | Side Effects |
|---|---|---|---|---|
| | | | | |

**PAIN DIARY**

**Patient's name:** **Hospital Number:**

**Date of visit:**

At the end of each day please record your pain severity and ability to do activities according to the definitions below:

a) Pain severity.

**0** No pain — **1** — **2** — **3** — **4** — **5** Pain as bad as could be

b) How much has the pain or side effects of the drugs interfered with your daily activities?

**0** No interference — **1** — **2** — **3** — **4** — **5** Unable to carry out activities

c) Please enter number of tablets per day and which ones, by initial.

| | | | |
|---|---|---|---|
| Carbamazepine (Tegretol) | 100 mg (T1) | Baclofen (B) | 10 mg |
| Carbamazepine (Tegretol) | 200 mg (T2) | Nortriptyline (N) | |
| Epanutin (Phenytoin) | 100 mg (E) | Lamotrogine (Lamactil) | 25 mg (L) |
| Prozac (P) | | Other | |

**PROPOSED DOSAGE SCHEDULES**
**As advised - see front of sheet for letter code.**
**The times are just a guideline.**

| Day | 7.00 a.m. |
|---|---|
| | |

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| Date | Pain Severity | Activ-ities | No. Tabs | Side Effects |
|---|---|---|---|---|
| | | | | |

| Date | Pain Severity | Activ-ities | No. Tabs | Side Effects |
|---|---|---|---|---|
| | | | | |

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***Figure 2: Example of a pain diary that can be completed by a person affected by trigeminal neuralgia***

be considered. Evidence is beginning to emerge that earlier treatment – within eight years of developing trigeminal neuralgia – may improve the outcome after surgery. A number of different surgical methods are used to treat trigeminal neuralgia, and these are described below.

## Interrupting the nerve

A number of different surgical methods are used to "interrupt" or block the electrical activity in the nerve. Whilst this may relieve the pain it will nearly always leave an area of numbness or loss of feeling in the face as the methods used destroy part of the nerve. The interruption can be made at one of three sites.

### 1. In the periphery of the face

The small branches of the nerve that pass inside the mouth and forehead may be cut (neurectomy), frozen (**cryotherapy**) or lasered. This can usually be done under **local anaesthetic** as a small surgical treatment. A small area of numbness may occur. Unfortunately, pain control is often only achieved for around ten months. It is usually only recommended when other treatments are not possible.

### 2. At the ganglion

The Gasserian ganglion lies just inside the bottom of the skull. It is a swelling on the nerve, the size and shape of a split broad bean. It contains the cells that supply the **nerve fibres** of the trigeminal nerve.

This procedure is carried out using a light general anaesthetic or heavy sedation. A needle is passed via the cheek up through a small hole in the base of the skull to reach the ganglion. An x-ray is used to guide it.

The ganglion is then de-activated by injecting it with **glycerol**, or using heat (**thermocoagulation**), or alternatively it may be compressed with a small inflatable balloon positioned at the tip of the needle. These procedures are usually carried out with the patient

under heavy sedation but partially awake so that the surgeon can confirm by stimulation that the needle has reached the correct place. An overnight stay in hospital may be required.

A larger area of the face can be treated with this technique than can usually be achieved by interrupting the nerve just below the surface of the skin as previously described. Again the majority of patients will develop numbness in the area being treated, though this is often not as complete as when the nerve is cut. The numbness feels like an injection for dental treatment wearing off. The severe, dull continuous pain in the numb area known as **anaesthesia dolorosa** may occur following this procedure in around two per cent of patients. Around 10 per cent of patients will experience some unpleasant sensations of the face which may affect the quality of life.

This technique carries a number of risks and these must be considered before deciding to go ahead with it. As the needle penetrates the skull, complications affecting the brain may arise. This occurs in less than one per cent of cases, but incidents of **meningitis**, **brain abscess**, **brain haemorrhage** and heart attack resulting from this procedure have been recorded, and these can result in death or permanent disability (mental or physical handicap).

It is worth noting that where the forehead is primarily affected it can be difficult to position the needle into that part of the nerve, so that a large area of numbness is created before the pain is relieved. An unfortunate by-product of this is that the eye (corneal) reflex is lost or reduced in around eight per cent of people treated by this method. This means that you don't feel anything touching the eye, which can lead to further problems if the eye becomes scratched or infected. Around 10 per cent of people may experience some difficulties with eating for a few months after the procedure.

The procedure itself can be extremely unpleasant for some people, but for the majority of others the discomfort is not great and many people are prepared to undergo a second procedure if the pain returns.

### 3. At the nerve trunk

The nerve trunk is the portion of the nerve that emerges from the brain and extends to the ganglion. This procedure, called rhizotomy, is an operation requiring a general anaesthetic. This procedure is carried out on relatively few people. An opening at the base of the skull is made just behind the ear. The nerve is identified using a microscope and is then cut or crushed in order to divide the fibres that supply feeling to the part of the face which is affected by pain. This results in some numbness, though often less than might be expected. The operation involves a hospital stay of between five and 10 days and staying off work for a period of around six weeks.

This procedure often provides a long-term cure, but its main disadvantage is the need for an operation in such an important area of the brain. Even in the most expert hands and with the greatest possible care the risks are greater than with the other procedures described. The exact risk in each case will depend upon the age and general health of the person concerned, but the incidence of death is reported to be 0·5 per cent and the incidence of serious disability (mental or physical handicap) is reported to be one per cent.

In addition, there is a risk that the nearby nerves coming from the brain stem may be damaged. These include those supplying hearing and balance, so unsteadiness or deafness in one ear may occur in up to four per cent of people undergoing this treatment. More rarely, weakness affecting the face on the side where the operation was carried out, difficulty in swallowing, or double vision may be experienced following the operation. This damage to nearby nerves arises in just under two per cent of cases but many may improve over the months. Some people experience pain around the wound behind the ear or numbness of the ear after this procedure. This usually settles down, but it can go on for several months. Again, anaesthesia dolorosa may follow this procedure.

A technique called stereotactic radiosurgery or "Gamma Knife" treatment is currently being developed. This uses a highly focused beam of radiation to interrupt the nerve impulses just behind the ganglion and does not involve a surgical operation. Early results seem

to suggest that rates of pain relief are similar to other interuptions. It is still being evaluated and its ability to provide long-term pain relief has not yet been assessed. It has the disadvantages that the benefits are delayed and that numbness may result, bringing with it concerns about future anaesthesia dolorosa.

## Decompression of the nerve

A procedure called neurovascular (nerve vessel) decompression or microvascular decompression has been developed in a bid to provide pain relief without nerve damage and consequent numbness or risk of anaesthesia dolorosa.

In this operation the surgeon makes the same opening as for the nerve trunk procedure described on page 10. The blood vessel found compressing the nerve as it emerges from the brain stem is moved away from the nerve and then a soft pad is placed between them. In 90-95 per cent of cases immediate pain relief is achieved by this procedure and there is evidence to show that about 70 per cent of people are pain-free 10 years later. This procedure rarely produces loss of sensation and there have been no reported cases of anaesthesia dolorosa.

The disadvantage of this procedure is that it again requires a formal operation and carries the same risks as the nerve trunk procedure (3) described earlier. It also requires a five- to 10-day stay in hospital.

## Neurostimulation

As with several chronic pain conditions, attempts have been made to treat trigeminal neuralgia and other forms of facial pain with neurostimulation. A variety of methods have been used to apply this technique. All require the placement of an electrode onto the nerve or ganglion in the upper (cervical) cord.

It does not provide a cure and it is used on only a small minority of patients with chronic facial pain for whom it may provide some

benefit. It is an issue that would need to be discussed with your specialist who may, if appropriate, refer you to an expert in this treatment.

## What is the best course of action for me?

If the pain is controlled by the drugs you have been given, then this is likely to be the best form of treatment. However, if the drugs give no relief, or if they have side effects that you can't cope with, you will need to give careful consideration to the surgical options that are available to you. This is something you will need to discuss with a specialist and possibly other organisations that provide information and support on this issue (see page 25).

Once you are clear about the potential benefits and risks you will need to weigh up whether you feel the risks are worth taking or not. You will need to think about whether the various options are likely to work, how long the benefits are likely to last and what sort of risk you will be taking.

The general view among specialists at the moment is that for young, healthy people the neurovascular decompression operation is likely to be the best option. It provides pain relief without numbness and usually does so in a lasting manner. For those who are generally unwell, elderly or frail and for those who cannot afford the time or are unwilling to take the risks associated with this form of surgery, the usual suggestion is to treat the condition by blocking the nerve at the ganglion, as described earlier. The benefits may not last as long and will usually be accompanied by an area of numbness. However, these procedures can be repeated and it is still possible to have surgery at a later date. Gamma knife treatment as described on page 11 may be an option for people who cannot undergo surgery for medical reasons.

You will need to consider these factors carefully and should feel under no pressure to opt for a particular procedure against your own better judgement. All options should be available to you via the centre at which you are receiving treatment.

# Glossopharyngeal neuralgia

This is a very rare condition that is sometimes confused with trigeminal neuralgia. The pain is of an identical nature, but it affects a different area. Glossopharyngeal neuralgia is usually felt at the base of the tongue, the back of the throat and may radiate to the ear. It affects only one side. The same areas become hypersensitive and the pain can be triggered by touching the ear or swallowing.

The doctor will use many of the same methods to diagnose this condition as are used to diagnose trigeminal neuralgia. The medicines used in its treatment are also the same as those used in trigeminal neuralgia. Because of its rarity, surgical treatment for those people in whom the pain breaks through is less established. You will certainly need to discuss this carefully with the specialist treating you.

# Post-herpetic neuralgia

Post-herpetic neuralgia is a form of chronic facial pain that follows an attack of shingles (*herpes zoster*) on the face.

## What is shingles?

Shingles is caused by the chicken pox virus, which most people get as a child. Shingles, however, usually occurs in older people. What happens is that the virus, which has been lurking in the body for many years, suddenly attacks a single nerve. It most commonly affects a nerve in the skin of the upper body, but it may attack the nerves in the head and face. It only affects one side of the face.

The illness follows a pattern. It begins with a dull pain in the facial skin. This is followed within a few days by the eruption of a weeping rash, which usually clears up within a few weeks or perhaps less with

the help of certain drugs such as acyclovir. Some people are unfortunately left with scarring, but the vast majority of people find that the pain settles down and the rash goes away without leaving a scar.

## How does this lead to post-herpetic neuralgia?

In rare cases, especially in people over 65 years of age, the pain continues for over a month after the shingles has gone and it is this chronic pain which is called post-herpetic neuralgia (herpes zoster is the medical name for shingles). The pain is usually of a burning, aching or throbbing nature and may often be accompanied by extreme tenderness. The wind blowing against the face or clothes rubbing it may be unbearable to sufferers, although firm pressure may not cause a problem. Despite the extreme tenderness in the affected area, the skin's general sensitivity may actually be reduced.

As with many chronic pains the symptoms may be worsened by physical or mental stress. In addition, sleep is often interrupted as bedclothes brush against the face.

## What causes the pain?

The chicken pox virus damages the nerve and as a result the area supplied by that nerve goes partly numb. However, the damaged nerve pathways then start to generate pain. Precisely how this comes about is unknown.

## Who gets post-herpetic neuralgia?

Anyone who has had shingles may get post-herpetic neuralgia, although it is very rare for young adults to develop it. Around 100,000 people per year in the UK develop post-herpetic neuralgia on some part of the body and only a small percentage of these will have it in the face.

## What treatment is available?

If after an attack of shingles on the face you still have pain a month after the rash has settled down you should go to see your doctor immediately as the effects of treatment are much better when given early. Ordinary painkillers usually have little effect and so may waste valuable time.

The main drug used for this condition is amitriptyline. This drug is more commonly used for depression, but it has a very powerful effect on certain forms of nerve pain. You may need to take it for two or three weeks before it provides relief.

Other medicines which may also be prescribed include creams and lotions which act as a local anaesthetic and numb the area to which they are applied, and the anticonvulsant drug carbamazepine (Tegretol), which is taken by mouth. Gabapentin (Neurontin) has been found to be effective and has fewer side effects than carbamazepine.

Surgical procedures to cut the nerve, such as those used in the treatment of trigeminal neuralgia, are always ineffective.

# Other causes of chronic facial pain

These conditions are considered together because they have many common features. Many sufferers will have pain not only in the face but also in other parts of the body, e.g. the neck, back or stomach. They may also have itchy skin or ringing in the ears.

BILL LONGCORE/SCIENCE PHOTO LIBRARY

# Temporo mandibular joint dysfunction

This condition is sometimes called *facial arthromyalgia* but many other names are used. In some cases the joint itself is causing problems, in others, it is the muscles.

The pain is in the form of a dull ache that affects the jaw and muscles in the side of the face near the ear. It may also cause clicking of the jaw and difficulty in opening the mouth because of **spasm** in the jaw muscles. The pain may extend over the side of the head and down into the neck. Often pain may be felt in the ear, where there may also be a sense of fullness or buzzing. It may sometimes be accompanied by dizziness.

The cause of this pain is unknown, although for some the problem is a product of disease in the jaw joint. It can also occur when the teeth do not align properly. This can happen when teeth have been lost or if dentures do not fit well. Treatment will therefore begin with a careful assessment by a dental specialist. It is important not to have any treatment that is irreversible as the condition clears up in most cases within two to three years.

# Atypical face pain/chronic facial pain

This term is used to describe facial pain for which no cause can be found and which does not respond to the usual painkillers. The pain can be intermittent or continuous, of varying intensity and can last for years. It may affect a small area of the face, but it can also spread across the whole of the face and mouth. The pain is described as nagging, throbbing and aching.

It is often associated with pains in other parts of the body, such as irritable bowel syndrome and itchy skin. As a consequence of the pain, many people with this condition are affected by anxiety and depression. The condition has been linked to stress and life changes such as moving house, changing jobs or divorce.

There are no tests to aid in the diagnosis of this condition, so doctors are very reliant on an accurate description of the symptoms.

# Atypical odontalgia

Odontalgia is a medical word for toothache. Atypical odontalgia is a severe and continuous discomfort in the teeth or a tooth socket that is not caused by any apparent dental problems. Oddly the pain may be made worse if dental treatment is pursued, though it is very common for teeth to have been removed by the time the diagnosis becomes clear. The pain often begins after a tooth has been taken out or following a root filling.

# Burning mouth syndrome – Oral dysaesthesia

This is a group of problems that include a burning or altered sensation in the tongue or other parts of the mouth. It may be associated with a nasty taste or sense of too much or too little saliva. There may also be a feeling of numbness. Dentures, crowns and bridges may become uncomfortable to such a degree that it is impossible to wear them despite all attempts to modify the shape. It mainly affects women who have been through the menopause.

## How are these conditions diagnosed?

As with trigeminal neuralgia there is no specific test that will prove the existence of any of these conditions. A dental or medical specialist will make a very careful examination of the mouth and the other affected areas to rule out causes such as thrush. Often investigations such as x-rays, scans and blood tests will be carried out to rule out other conditions such as diabetes, anaemia and vitamin deficiencies. Once the diagnosis has been confirmed and other problems excluded, treatment may begin.

## What causes the pain?

These conditions are not yet fully understood. Some cases of burning mouth syndrome may be related to an oral thrush infection, vitamin deficiency or rarely an allergy to dental materials, but in many cases the actual cause or trigger is unknown. However, it is believed that the pain itself may result from cramped muscles and **dilated** blood vessels which lead to the production of chemicals in the blood, causing pain, anxiety and even depression. These conditions tend to be made worse by tiredness and stress.

## What treatments are available for atypical face pain, atypical odontalgia and burning mouth syndrome?

Simply to have an accurate diagnosis and some understanding of the condition leaves many people much better able to cope with their pain. Treatment is based on drugs, often supported by "pain management techniques" (see below). There is no surgical solution to these problems. Your specialist will advise you on what is best in your particular case.

## What drugs are used?

The most frequently prescribed drugs are antidepressants. These are not prescribed because it is felt that you are necessarily depressed, but because these drugs are now known to have a specific effect on certain forms of chronic pain. If the pain has made you depressed then they will of course help that problem too. The most commonly used medicines are amitriptyline, nortriptyline and fluoxetine (Prozac). These drugs will often need to be taken for several months before they become fully effective, and they may need to be taken for a year if they are to be of lasting benefit.

These are safe drugs that very seldom have serious side effects, though many people taking amitriptyline and nortriptyline complain of mild drowsiness and/or a dry mouth, and some people become constipated while taking them. The effects of drowsiness and constipation tend to be worse for elderly people. Amitriptyline and nortriptyline are best avoided if you suffer from certain conditions such as **glaucoma**, or **prostate** problems. Your doctor will take all these things into account before prescribing them to you, and will be able to discuss any concerns. Other related drugs may be used if you experience side effects.

## What are pain management techniques?

Pain can feel worse if you feel it has become out of control and if you become stressed. Pain management techniques aim to teach you methods of coping better with the pain when it breaks through the treatments. They also aim to help you to control stress better and thus prevent it from making the pain worse. These methods are often taught by psychologists. A referral to a **clinical psychologist** should not be taken as meaning that the doctor believes your pain is due to a mental problem. People with chronic pain of any kind can gain benefit from this sort of treatment.

The treatment sessions will usually consist of teaching you relaxation techniques and coping strategies for when the pain is severe. These may include cognitive behaviour therapy, which is a technique that helps you to think positively about your pain and how to cope with it. You may need to attend on several occasions, and the idea is for you to learn the methods so that you can use them on your own.

The use of these techniques varies very much from one hospital or specialist unit to another, but they are becoming increasingly popular and you can discuss them with your doctor.

# Summary

There are a number of different types of face pain, some of which can be severe and persistent. Many types of face pain can be effectively controlled by use of appropriate drug treatment. For some people, affected by conditions such as trigeminal neuralgia, where drug treatment proves ineffective, modern surgical techniques often provide substantial relief from the pain. Pain management, i.e. developing coping strategies and control over the pain is important for all people with chronic pain.

# Glossary

### Anaesthesia dolorosa
Severe, dull, continuous pain that can occasionally occur in the numb area following procedures to interrupt a nerve.

### Anticonvulsants
Drugs used to control fits or seizures.

### Benign
Non-cancerous.

### Brain abscess
A collection of pus surrounded by damaged and inflamed tissue in the brain caused by an infection.

### Brain haemorrhage
Bleeding from a cerebral artery into the tissue of the brain.

### Chronic
Used to describe a pain or disease which lasts for a long time.

### Clinical psychologist
A specialist who uses the science dealing with the brain and mental processes to assess and treat patients.

### Cryotherapy
The use of cold to treat disease.

### Dilated
Enlarged or expanded - used when describing hollow organs such as blood vessels.

### Epilepsy
Disturbance of brain function causing recurrent fits (seizures).

### General anaesthetic
A drug that is used to produce loss of consciousness and deaden or reduce sensation throughout the body for the purpose of performing an operation.

### Glaucoma
A condition in which vision is impaired because of abnormally high pressure in the eye.

### Glossopharyngeal
Relating to the tongue (glossa) and pharynx - the muscular tube which extends from the gullet up to the base of the skull and acts as a passageway for food and air.

### Glycerol
A clear viscous liquid which has many uses in the pharmaceutical industry.

### Lesion
An area of tissue damaged by disease or wounding. Abscesses, ulcers and tumours are all lesions.

### Local anaesthetic
A drug that is used to reduce or deaden sensation in a particular area of the body for the purpose of performing a procedure which does not require a formal operation.

### Meningitis
An illness due to swelling (inflammation) of the meninges, the three tissue membranes that enclose the brain and spinal cord.

### MRI
Magnetic resonance imaging. This scan produces detailed pictures of the inside of the body using magnetic waves.

### Multiple sclerosis
A disease affecting the nervous system usually with a relapsing and remitting pattern (at times the symptoms are severe, while at times they seem to disappear). Movement, vision, speech and memory may be affected.

### Myelin
A fatty protein coat around nerve fibres which aids the conduction of nerve impulses.

### Nerve fibres
Structures that extend from nerve cells and carry nerve impulses from the brain or spinal cord. Bundles of nerve fibres running together form nerves.

### Neuralgia
A severe burning or stabbing pain which often follows the course of a nerve. Literally means nerve pain.

### Oral
To do with the mouth.

### Primary
In medical terms this word is used to describe a disease or condition that is not a by-product of another disease.

### Prostate
A male sex gland which secretes a fluid during ejaculation that forms part of the semen. Problems with this gland can lead to urination difficulties and kidney damage.

### Spasm
A sustained involuntary muscular contraction.

### Thermocoagulation
The use of heat to modify and destroy tissue.

### Trigeminal nerve

The largest of the 12 pairs of cranial nerves that start in the brain. It is split into three branches or divisions on each side of the face, which go to the forehead, cheeks and jaw. It relays information about temperature, pain and touch to the brain from the whole front half of the head and also controls the muscles that are involved in chewing.

### Tumour

An abnormal swelling in or on any part of the body, usually applied to an abnormal growth of tissue. A tumour may be benign (non-cancerous) or malignant (cancerous).

# Other organisations that may be able to help

**Brain & Spine Helpline**
Brain and Spine Foundation
7 Winchester House
Kennington Park
Cranmer Road
London SW9 6EJ
**Tel: 0808 808 1000**
**www.brainandspine.org.uk**
*(Information and support on neurological disorders for patients, carers and health professionals)*

**NHS Direct**
**Tel: 0845 4647**
**www.nhsdirect.nhs.uk**
*(Medical advice and information on NHS Services)*

**Pain Relief Foundation**
Rice Lane
Liverpool L9 1AE
**Tel: 0151 523 1486**
*(Charity funding research and information on chronic pain)*

**Trigeminal Neuralgia Association (USA)**
2801 S.W. Archer Road, Suite C
Gainesville, FL 32608
**Tel: 00 352 376 9955**
**www.tna-support.org**
*(Support groups and information for patients and families)*

**Trigeminal Neuralgia Association UK**
PO Box 413
Bromley BR2 9XS
**Tel: 020 8462 9122**
**www.tna-uk.org.uk**
*(Information and support for patients and families)*

**Wessex Trigeminal Neuralgia Support Group**
Link Nurse, Mandy Lodge
C-Neuro
Wessex Neurological Centre
Southampton University Hospital Trust
Southampton SO16 6YD
*(Support and quarterly meetings for patients and families)*

# Notes

# Supporting the Brain and Spine Foundation

In order for the Brain and Spine Foundation to continue to fund its vital research and education work in brain and spine disorders, *we need your help.*

YES! I would like to help.
Please find enclosed a gift of £10 ☐ £15 ☐ £25 ☐

£ ☐ other Please accept this as a Gift Aid donation. I am a UK tax payer and would like the Brain and Spine Foundation to reclaim the tax on all donations I have made since 6 April 2000, and thereafter until I notify you otherwise. Yes ☐ No ☐

Note: All donations now qualify for Gift Aid if you are a tax payer. Please sign and date this form in the box below as confirmation.

*Signature*

*Name Mr/Mrs/Ms*

*Address*

*Postcode*

*Email*

or you may donate by Visa/Mastercard/CAF card by filling in the details below or calling our donation line on 020 7793 5900

Card Number

Expiry Date

Signature

I am also interested in:

- ☐ *Making a Bequest to the Foundation in my will*
- ☐ *Setting up a standing order*
- ☐ *Organising a fundraising event*

Brain and Spine Foundation, 7 Winchester House, Kennington Park, Cranmer Road, London SW9 6EJ Telephone: 020 7793 5900
Fax: 020 7793 5939 Helpline: 0808 808 1000
Email: info@brainandspine.org.uk Website: www.brainandspine.org.uk

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Registered Office: Columbia House 69 Aldwych London WC2B 4RW

# Publications from the Brain and Spine Foundation

We can supply **one** copy of each relevant publication free to patients and carers affected by neurological disorders. However, if you are able to pay for them, it will help us to cover our costs. Additional copies cost £5 each for booklets and £3 each for leaflets. (Price includes £1.00 post and packing). Please make your cheque payable to the Brain and Spine Foundation.

Please complete your name and address below, tick the appropriate box/es, and post your order to us at:

*Brain and Spine Foundation, FREEPOST, London SW9 6BR.*

Name (Mr/Mrs/Miss/Ms) _____

Address _____

_____ Postcode _____

Please tick as appropriate:

- ☐ Aids and the brain
- ☐ Angiogram (leaflet)
- ☐ Back & neck pain
- ☐ Brain tumour
- ☐ CJD – a guide for patients and carers
- ☐ CJD – a guide for GPs
- ☐ Craniotomy (leaflet)
- ☐ CT Scan (leaflet)
- ☐ Dizziness & balance problems
- ☐ Epilepsy
- ☐ Face Pain
- ☐ Headache
- ☐ Head injury & concussion
- ☐ Meningitis & Encephalitis
- ☐ Motor neurone disease
- ☐ MRI Scan (leaflet)
- ☐ Multiple sclerosis
- ☐ Neurophysiology
- ☐ Paralysis – the loss of muscle power
- ☐ Parkinson's disease
- ☐ Speech, language and communication difficulties
- ☐ Spinal tumour
- ☐ Stroke
- ☐ Sub-arachnoid haemorrhage
- ☐ Transient ischaemic attacks and mild strokes
- ☐ Transverse myelitis
- ☐ Vascular malformations of the brain

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