

Cluster Headaches

Cluster headache is far less common than migraine headache or tension headache. As the name suggests, the cluster headache exhibits a clustering of painful attacks over a period of many weeks. The pain of a cluster headache peaks in about 5 minutes and may last for an hour. Someone with a cluster headache may get several headaches a day for weeks at a time - perhaps months - usually interrupted by a pain-free period of variable length.

Who is affected?

Cluster headaches are rare and affect around one in 1,000 people. Anyone can be affected, but approximately eight out of 10 people who have them are men and most are smokers. Most people get their first cluster headache around the age of 25, although they may experience their first attacks in their teens to early 50s.

Cluster Headache Causes

Cluster is one of the least common types of headache, and the cause is unknown, but they are more common in autumn and spring. In some people, they are triggered by drinking alcohol or an extreme increase in temperature (such as from exercising in hot weather).

The pain is vascular in nature, and caused by blood vessel swelling in the head. The autonomic nervous system is intimately involved in the genesis of cluster headache and it appears to be mediated by alterations in the hypothalamic area. This area and adjacent areas are believed to regulate both daily as well as yearly cycles that go on in the body. Although it is rare, it is possible for someone with cluster headache to also suffer from migraine headache. Cluster headaches can be either episodic or chronic. Episodic cluster headaches are more common. With episodic headaches the sufferer may have 2 or 3 headaches a day for about 2 months and not experience another headache for a year. The pattern then will repeat itself. The chronic type is similar to episodic cluster headaches but there is no period of untreated sustained relief.

Cluster Headache Symptoms

Headache attacks occur in groups (clusters) which usually happen one to three (and up to eight) times a day. The extreme pain of cluster headaches is the most characteristic feature. This pain comes on without warning (no forewarning symptoms such as the aura in classic migraine) and may begin as a burning sensation on the side of your nose or deep in your eye.

Cluster headache starts suddenly, and a minimal warning of the oncoming headache may occur, including a feeling of discomfort or a mild one-sided burning sensation. The

pain peaks in just a few minutes. People describe the feeling as having an ice pick driven through your eye. They use words such as "excruciating," "explosive," and "deep." This stabbing eye pain carries with it a rapid electrical-shock like element, which may last for a few seconds, and a deeper element that continues for a half-hour or longer. The pain almost always begins in your eye and always on one side of your face. For most people the pain stays on the same side of the face from cluster to cluster, while in a small minority the pain switches to the opposite side during the next cluster. The scalp may be tender and the arteries often can be felt increasing their pulsation. The pain is so intense that most sufferers cannot sit still and will often pace during an acute attack.

This pain is of short duration, generally 30 to 45 minutes. However, the headache itself may last anywhere from a few minutes to several hours and will disappear only to recur later that day. Most sufferers get one to four headaches per day during a cluster period. They occur regularly, generally at the same time each day. Cluster headaches often awaken the sufferer in the early morning or during the night and have been called "alarm clock headaches."

In addition to its one-sidedness, other characteristics separate cluster headaches from other headaches. Cluster headaches commonly come on just after you go to sleep. Often the eye on the affected side will weep and the eyelid on the affected side will droop. The pupil may contract. There may be one-sided nasal stuffiness and runny nose. Cluster headaches have seasonal variations. Most attacks occur in January and July, where the days are in turn the shortest and longest. Cluster headaches are not associated with the gastrointestinal disturbances or sensitivity to light that is found in migraine.

Exams and Tests

- Your doctor must rule out a variety of other causes of facial pain besides cluster headache. Other forms of headache and facial pain include typical neuralgia, myofascial pain, temporomandibular joint pain, trigeminal neuralgia and local disease in the sinuses, jaw, throat, and bones of your head.
- Your first experience of a severe explosive headache may be a warning of subarachnoid hemorrhage or bleeding in your head or brain (a form of stroke). This is a neurological emergency that doctors are at the ready to treat.
- A severe headache also can be a warning of a brain tumor or infection in your head. Both these conditions are rare, but because they are life threatening, your doctor will want to rule these out first.
- Physical examination of your head will help define other possible causes of this painful syndrome. Between bouts of headaches, there are usually no physical symptoms that indicate cluster headaches. Symptoms that may indicate cluster headaches include eye tearing, pupil of the eye narrows, lack of sweating over one-half of your face, nasal stuffiness, facial and eye redness.

- A doctor should complete an initial examination of your nerve response. But doctors reserve more extensive testing, such as a CT scan or MRI, for people in whom they suspect a more serious condition such as skull or brain tumor, infection or neurological condition. A doctor may also advise you that a lumbar puncture ("spinal tap") is needed. This may help to establish if the cause of the headache is from an infection, or from bleeding in or around your brain.

Cluster Headache Treatment

Cluster headaches cannot be treated with over-the-counter painkillers, such as paracetamol, as they are too slow to take effect. Specialist headache is needed. Treatment involves 2 types of care, preventative and abortive, and many people require both at the same time:

Preventive treatment: This includes ongoing use of medications proven effective in holding off headaches or limiting their number, even when you are not experiencing headaches. Examples are drugs like beta-blockers (propranolol, atenolol), anticonvulsants (topiramate, carbamazepine) and tricyclic antidepressants (amitriptyline). Calcium channel blockers (verapamil) are usually used to treat heart problems but are also effective at preventing cluster headaches. The heart must be closely monitored with ECGs (electrocardiograms) when the dose of verapamil is increased. Corticosteroid drugs can provide temporary relief from the attacks until the preventative treatment works. Lithium tablets are normally used to treat mood disorders, but can help cluster headaches. The level of lithium in your blood may need to be carefully monitored to avoid side effects. Ergotamine tablets temporarily narrow blood vessels throughout the body. Ergotamine should not be used for prolonged periods and is not prescribed to people with poor circulation. Methysergide tablets are effective at preventing cluster headaches but should only be used when other treatment has not worked. They should not be used for longer than six months due to the risk of side effects. Ergotamine and methysergide are unlicensed in Ireland and are only available via a consultant prescription as they would have to be sourced from the UK. Though widely used, the selective serotonin reuptake inhibitor (SSRI) class of antidepressant (fluoxetine, paroxetine, escitalopram) is relatively ineffective for cluster headaches.

Occipital nerve anaesthetic block involves blocking the occipital nerve which runs from the top of the spine to the scalp and is involved in the pain of cluster headaches. Occipital nerve block is the injection of a local anaesthetic, such as lidocaine, into the back of the head to relieve the pain of cluster headaches for a period of time (usually several weeks). Although there is a lack of research evidence on this treatment,

Abortive treatment: This is designed to stop a headache once it has begun. Drugs of the triptan family such as sumatriptan (Imigran[®]) or zolmitriptan (Zomig[®]) can be effective for migraine. Sumatriptan (Imigran) is commonly used to treat cluster headaches. It works in a similar way to a brain chemical called 5HT and causes your blood vessels to narrow, reducing blood flow to the brain. Sumatriptan is usually given as an injection, which you can give yourself as soon as the headache starts. It works very quickly (within about 10 minutes). The adult dose in an injection is 6mg and you can take a maximum of two injections in 24 hours, as long as they are at least an hour apart.

Some people have mild side effects, such as nausea, dizziness, tiredness and a dry mouth. If you have any side effects, talk to your GP. You should not take it if you have heart disease or peripheral vascular disease. Oxygen inhalation by facial mask can be used at the first signs of a cluster attack and has been successful in aborting an acute cluster headache.

Preventing cluster headaches

Alcohol

Alcohol may trigger attacks of cluster headaches during the period that the headaches occur. Avoiding drinking alcohol during these periods will reduce the frequency of headaches. During headache-free periods, alcohol does not appear to trigger attacks.

Nitroglycerin

Nitroglycerin is a medication that causes the blood vessels to enlarge. It can cause attacks of cluster headaches. It is used to treat angina. It may be prescribed in spray form which is sprayed under the tongue to quickly relieve an angina attack (eg) Glytrin Spray[®]. It may also be prescribed in tablet form to prevent and treat angina (eg) Imdur[®]. They should be avoided or used in extreme caution in patients who suffer from cluster headaches.

Temperature

An extreme increase in temperature can trigger a cluster headache, so avoid exercising in hot weather and anything else that may cause your body temperature to suddenly increase.

Outlook

Cluster headache can be either ongoing or come and go, and people can jump from one type to the other. Many people who have cluster headache are pain-free for a year or longer, only to have the frustrating cycle of daily headaches begin again. As is the case with migraine, people with cluster headaches respond to therapies that are widely available and are becoming less expensive. With proper medical treatment and guidance, you can control cluster headache.

Disclaimer: Please ensure you consult with your healthcare professional before making any changes recommended

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