



Cluster headache in children

This information sheet from Great Ormond Street Hospital (GOSH) explains the causes, symptoms and treatment of cluster headaches and where to get help.

What is cluster headache?

Cluster headache is a type of headache that involves repeated attacks of very severe pain on one side of the head, often around the eye or temple. On the same side of the pain, there can be associated symptoms such as a blocked or runny nose, eye watering, sweating, cheek flushing, eyelid swelling, or a sense of fullness in the ear. Together these symptoms are known as 'autonomic dysfunction'.

Attacks of pain typically last between 15 minutes and three hours, and tend to happen at similar times each day.

Cluster headaches may be episodic or chronic.

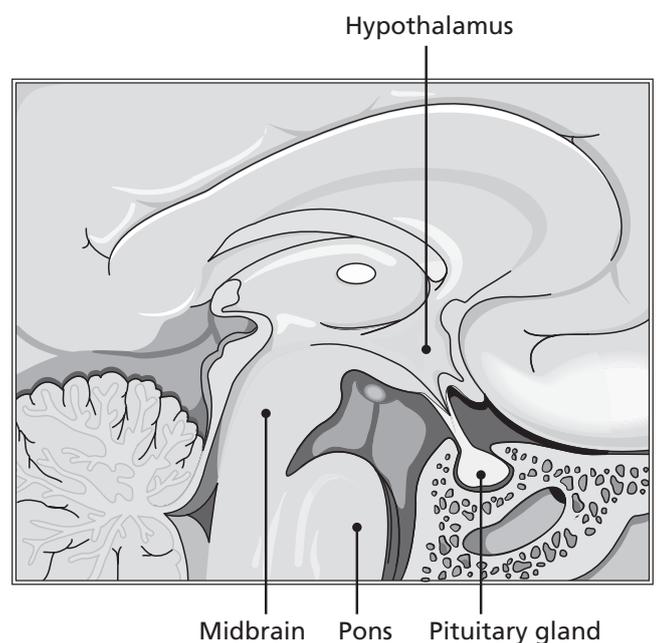
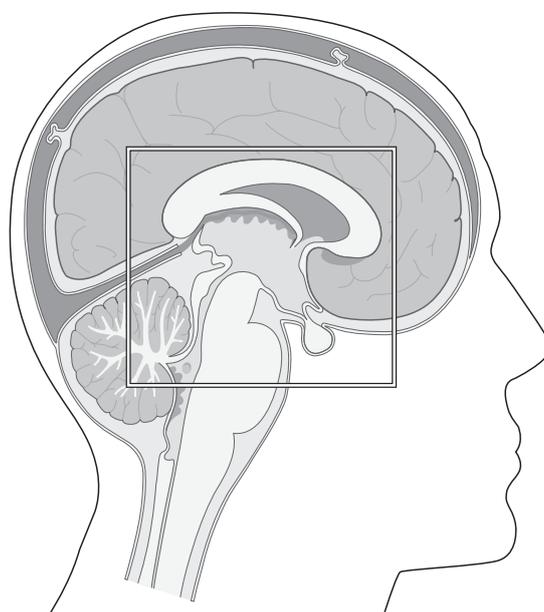
- Most people have 'episodic' cluster headaches, where attacks of pain occur in clusters lasting one week to one year.

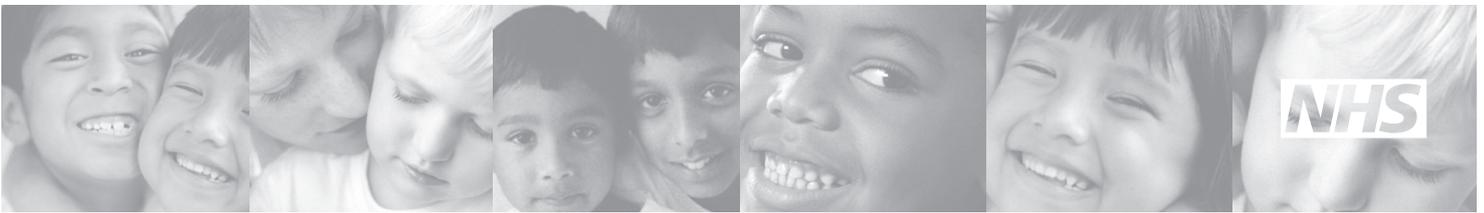
These clusters are separated by periods of remission where no headaches develop that last at least one month.

- People with 'chronic' cluster headaches have recurrent attacks of pain for more than one year without remission.

How common is it and who does it affect?

Cluster headache is quite rare. Doctors think that between one and three in 1000 adults have cluster headaches. They think it is even rarer in children. Males are around seven times more likely to be affected than females but more research is needed to understand why.





What causes cluster headache?

We do not fully understand the exact cause of cluster headache. Cluster headache affects the parasympathetic nervous system, which causes the symptoms of autonomic dysfunction. It also seems to involve a part of the brain known as the hypothalamus, which helps to control our bodily rhythms. This may help to explain the regularity of attacks.

Certain triggers are known to worsen cluster headaches. These include alcohol, certain fumes or strong smells, and being in a warm environment. Afternoon naps can also be a trigger for some people with cluster headaches. Cluster headaches are also more common in people who smoke.

How is cluster headache treated?

There are two main parts to managing cluster headache: relief for when an attack is happening and prevention to stop attacks. Before treatment starts, it is important to rule out any other causes of headache.

Relieving medication

Unfortunately, most regular pain relief such as paracetamol and ibuprofen are not helpful for cluster headaches. Relieving medication is used during an attack of pain to reduce how long each headache lasts and how painful it is. They should be used as soon as the headache starts.

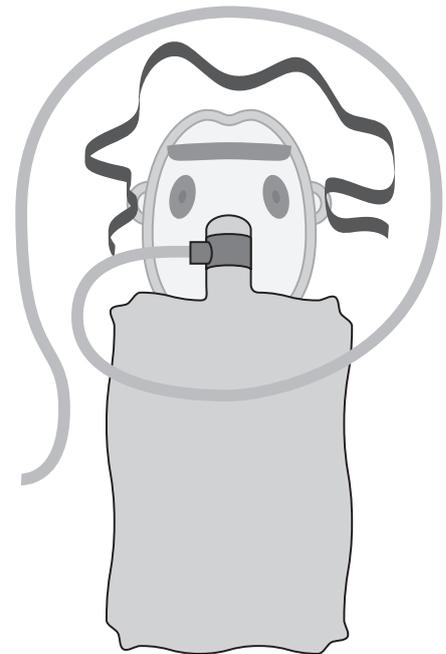
There are two major relieving treatments that can be used:

Sumatriptan injection

- This is the most effective reliever for cluster headache.
- It is given as an injection just under the skin (subcutaneously).
- We can teach you and your child (and any other carers) to give this injection.
- Sumatriptan is also available as a nasal spray or tablets, but these options are much less effective in relieving cluster headache.

Oxygen

- Breathing in 100 per cent oxygen has been shown to provide fast acting pain relief for cluster headache
- Directions for use:
 - Inhale pure oxygen at a rate of 7 to 15 litres per minute – start at 15 litres for the first few minutes, then turn down the rate
 - Use a non-breathing mask (one without any holes – see picture below) and a reservoir bag
 - Start oxygen therapy as soon as an attack is starting
 - Keep breathing in the oxygen for at least 5 to 10 minutes after the headache has gone



Non-breathing mask for oxygen administration

Preventative medication

Preventative medication is taken every day to reduce the number of attacks. Verapamil is the most commonly used. This is a tablet that can be taken occasionally or continuously, depending on how frequently the headache clusters occur.



What happens next?

If you think you have cluster headache, you should see your family doctor (GP) or ask for a referral to your local paediatrician (specialist children's doctor). Many of the treatments mentioned here will be available from local services. If symptoms continue or worsen, you could ask your paediatrician to refer your child to the headache clinic at GOSH. Unfortunately the service can only take referrals from paediatric consultants.

Further information and support

Organisation for Understanding Cluster Headache OUCH (UK) offers support and advice to anyone affected by cluster headache. Call their helpline on 01646 651 979 or visit their website at www.ouchuk.org.

If you would like to know more about the headache clinic, please call us on 020 7813 8308.