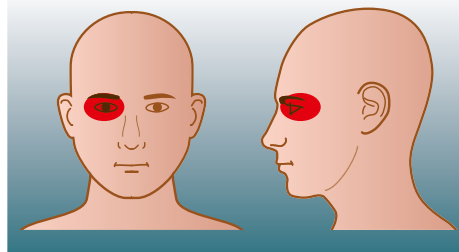


Cluster headache [1]

Symptoms

A **Unilateral, severe pain attacks occurring periodically, more frequently** (in clusters) in the spring and autumn. In 81% episodic headache, in 10-15% chronic headache [2], in 6% a combined form.

Affected: area of the eye socket and behind it, as far as the temple.



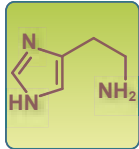
Duration of the pain attacks: 15 minutes to 3 hours.

Level of pain: severe

Additional symptoms: Reddened blood vessels in the conjunctiva, weeping eyes, swelling of the nasal mucosa, runny nose, drooping eyelid, narrowed pupils.

Triggers

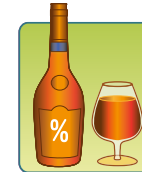
B



Histamine (occurs e.g. in allergy)



Nitroglycerin (medicine used for angina pectoris)



Alcohol

Other suspected triggers to which patients react very differently:

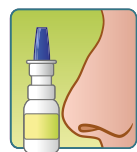
e.g. cheese, glutamate (flavour enhancer), nitrite (pickling salt), odours, sleeping during the day ...

Treatment of pain attacks [3]

C



Inhalation of 100% medical oxygen (face mask)

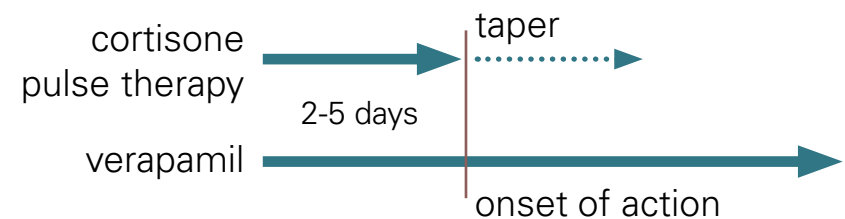


Triptans as nasal spray or injected into the subcutaneous tissue

Common painkillers are mostly ineffective!

Preventive treatment [3]

D



Cluster headache [1]

A Symptoms

Unilateral, severe pain attacks occurring periodically, more frequently (in clusters) in the spring and autumn, mostly at night. The average age of patients is 20-40, men are three times more commonly affected than women.

Episodic cluster headache (81%) [2]:

1 to 8 attacks per day. Episodes of headaches (a few weeks to months) are interspersed with pain-free periods.

Chronic cluster headache (approx. 10-15%) [2]:

Persistent cluster period (more than one year) without spontaneous improvement, or improvement phases of less than one month.

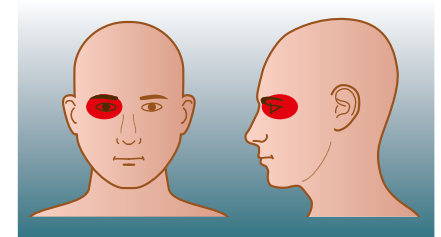
In 6% there is a **combined form**.

Affected: area of the eye socket and behind the eye as far as the temple.

Duration of the pain attacks: 15 minutes to 3 hours [3].

Level of pain: severe

Additional symptoms: Reddened blood vessels in the conjunctiva, weeping eyes, swelling of the nasal mucosa, runny nose, drooping eyelid, narrowed pupils



B Triggers

Known triggers are **histamine, nitroglycerin and alcohol**. Attacks can be provoked with these substances.

In addition, numerous triggers such as cheese, glutamate, nitrite, odours and sleeping during the day are suspected. However, patients react very differently, in some cases not at all.

C Treatment of attacks [4]

The usual peripherally and centrally acting analgesics (painkillers) are generally ineffective. Moreover, the attack has usually abated before the substance can take effect.

The attacks are best treated with 100% medical oxygen (face mask) or by administration of a triptan (as nasal spray or by subcutaneous injection).

D Preventive treatment [4]

The calcium channel blocker verapamil is the drug of choice for prevention*. Verapamil dilates the vessels and promotes blood flow. However, its action is delayed with a gradual increase in dose. Cluster headaches can therefore be stopped by prednisone or prednisolone**, which is gradually reduced after five days.

*Not licensed for this indication according to SPC, but is first choice for prevention according to guidelines [2].

** These corticosteroids are not licensed for this indication according to the SPC, but have been proved effective in studies, according to guidelines [2].

[1] Nesbitt AD, Goadsby PJ. BMJ (2012) 344: e2407.

[2] International Headache Society. Available at: http://ihs-classification.org/en/02_klassifikation/02_teil1/03.01.00_cluster.html. Accessed March 2013

[3] Headache Classification Subcommittee of the International Headache Society. The International Classification of Headache Disorders: 2nd edition. Cephalalgia (2004) 24(Suppl 1): 9–160.

[4] May A et al. Eur J Neurol (2006) 13: 1066- 1077.