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Patient education: Headache treatment in adults (Beyond the Basics)

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HEADACHE OVERVIEW

In many people, headaches can be well controlled with a combination of medicines and complementary therapies. Treatment is most successful when it is tailored to your needs.

The treatment of tension headache, chronic daily headache, medication overuse headache, and cluster headache will be reviewed here ([table 1](#)). Migraine headaches are discussed in more detail separately. (See "[Patient education: Migraines in adults \(Beyond the Basics\)](#)".)

The causes and diagnosis of headache are discussed separately. (See "[Patient education: Headache causes and diagnosis in adults \(Beyond the Basics\)](#)".)

A discussion of headaches in children is also available. (See "[Patient education: Headache in children \(Beyond the Basics\)](#)".)

HEADACHE TREATMENT TYPES

Headache treatment depends upon the frequency, severity, and symptoms of your headache.

- **Acute** treatment refers to medicines you can take when you have a headache to relieve the pain immediately. You only take these medications as needed when you have severe headache.
- **Preventive** treatment refers to medicines or other treatments you use on a regular (often daily) basis to prevent headaches in the future. You use these treatments as scheduled regardless of whether or not you have a headache at the time.

TENSION-TYPE HEADACHE TREATMENT

Tension-type headaches are very common. They cause pressure or tightness around both sides of the head and neck. People often feel stress or tension before the headache. Unlike migraines, tension-type headaches are usually not associated with other symptoms like nausea, vomiting, or sensitivity to sound or light.

Acute treatment — Tension-type headaches that occur less than 15 times per month can usually be treated with a pain reliever. Headache that occurs on 15 or more days per month is considered "chronic"; the treatment approach for this is different. (See '[Chronic daily headache treatment](#)' below.)

Pain relievers — A pain reliever may be recommended first for the treatment of tension type headache. These drugs include:

- Nonsteroidal antiinflammatory drugs (NSAIDs) such as [ibuprofen](#) (sample brand names: Motrin, Advil) or [naproxen](#) (sample brand names; Aleve, Naprosyn)
- [Acetaminophen](#) (sample brand name: Tylenol)
- [Aspirin](#)

Mild pain relievers are also available in combination with caffeine, which enhances the medication's effect; an example is [acetaminophen](#), [aspirin](#), and caffeine (sample brand name: Excedrin). This combination may be recommended if a pain reliever alone does not relieve the headache.

Pain relievers should not be used too often because overuse can lead to medication-overuse headaches or chronic daily headaches. If your headache responds to a pain reliever, you should continue taking these with each headache. However:

- Do not use pain relievers more than nine days per month on average, or more than two doses per episode.
- If a pain reliever does not control your headache, talk to your healthcare provider for other suggestions.

People with gastritis (inflammation of the stomach), ulcers, kidney disease, and bleeding conditions should not take products containing [aspirin](#) or NSAIDs.

Combination medicines containing butalbital and opioids — Combinations of an opioid (narcotic) and a pain reliever are available, but are generally not recommended since they are habit-forming and can increase the risk of medication-overuse headaches and chronic daily headaches. Even so, such medications may be considered in special situations where simple pain relievers are ineffective or cannot be used safely (eg, women in the third trimester of pregnancy or people with ulcers, severe kidney failure, or liver failure). Health care providers are careful when prescribing these medications in order to minimize the risk of misuse or addiction.

Preventive treatment — Preventive therapy is recommended for people with tension-type headaches that are frequent or long lasting, or have a significant impact on a person's ability to do their normal activities.

Antidepressant medicines called tricyclics (TCAs) are often used to help prevent frequent tension headaches. Examples of TCAs include [amitriptyline](#) (used most commonly), [nortriptyline](#), and [protriptyline](#). The dose of TCAs used for people with headaches is typically much lower than that used for treating depression. It is believed that these drugs reduce pain perception when used in low doses, although it is not exactly clear how the medicines work.

It is common to feel tired when you start taking TCAs; this is not always an undesirable side effect since it can help improve sleep if you take TCAs in the evening. Your health care provider may recommend taking [amitriptyline](#) or [nortriptyline](#) two hours before bedtime to prevent morning grogginess. If morning grogginess occurs, then the medication could be taken even earlier (around dinnertime). TCAs are generally started in low doses and increased gradually. Their full effect may not be seen for weeks to months.

Tricyclic antidepressants are sometimes used in combination with behavioral therapy to prevent tension-type headaches. The goal of behavioral therapy is to identify and try to avoid behaviors that can trigger a headache. (See '[Lifestyle changes](#)' below.)

CHRONIC DAILY HEADACHE TREATMENT

"Chronic daily headache" means a headache that is present for more than 15 days per month for at least three months. It is not a type of headache but a category that includes different types; most people with chronic daily headache have migraine or tension-type headaches.

The management of chronic daily headache depends on the type of headache and whether medication overuse is a factor.

- Chronic migraine – The treatment of chronic migraine should focus on preventive therapy while avoiding migraine triggers and limiting the use of acute headache medications to avoid medication overuse headache. Preventive treatments include medicines, behavioral therapy, or physical therapy. Management often requires the simultaneous use of these different treatments.
- Chronic tension-type headache – For chronic tension-type headache, effective treatment involves the use of daily preventive medications (eg, tricyclic antidepressants), behavioral therapies and physical therapy. Like chronic migraine, the combined use of these interventions is often best.
- Medication overuse headache – This happens when headaches (of any type) lead to a cycle of taking medication to treat pain, then headache recurring when the medication wears off, then taking more medication. (See ["Patient education: Headache causes and diagnosis in adults \(Beyond the Basics\)", section on 'Medication-overuse headache'.](#))

The approach to treating medication overuse headache involves understanding the cycle that is happening, stopping the medication being overused, and working with your health care provider to establish an appropriate headache treatment and prevention plan. Medication overuse headache can occur even if medication is taken frequently for chronic pain in other parts of the body. The body can become dependent on pain-relieving medications and a headache can develop as a result. This happens because the body is unable to distinguish why the medication is being taken. If you have frequent migraine or tension headaches, you should avoid taking daily pain relieving medications for other types of pain (such as back or joint pain). Your health care provider can talk to you about other treatment options.

CLUSTER HEADACHE TREATMENT

Cluster headaches are severe, debilitating headaches that occur repeatedly for weeks to months at a time, followed by periods with no headache. (See ["Patient education: Headache causes and diagnosis in adults \(Beyond the Basics\)", section on 'Cluster headache'.](#))

Most people who suffer from cluster headaches will need both acute and preventive medicines.

Acute therapy — Acute therapy often includes one or more of the following:

- Inhaling 100 percent oxygen through a facemask for 20 minutes. Oxygen treatment is often recommended first because it has few side effects.
- Triptans are medicines often used to treat migraines. Triptans (especially injections of [sumatriptan](#)) can stop a cluster headache, often within 20 to 30 minutes. If you are unable to give yourself an injection, options include inhaled (nasal spray) sumatriptan or [zolmitriptan](#).

If neither oxygen nor triptans are helpful, alternative choices include intranasal [lidocaine](#) (liquid applied inside the nose) and [ergotamine](#) (a tablet dissolved under the tongue).

Transitional treatment — During a cluster headache cycle, a "transitional" therapy is often used to relieve the headaches while the preventive treatment is adjusted to prevent the return of the headaches:

- The glucocorticoid (steroid) drug [prednisone](#) is an effective transitional therapy. It is taken as a pill. Long-term use of glucocorticoids is not recommended due to the risk of side effects.
- If [prednisone](#) is not effective at relieving the headaches or there is a contraindication to using steroids, some providers may suggest a nerve block. This involves injecting pain-relieving medicine around the nerves in the back of the head to help suppress the headaches.

Preventive treatment — Preventive therapy is usually started as soon as possible and taken every day when a new cluster of headaches develops. Some people require a combination of medicines. Preventive medicines may be gradually stopped after the cluster has passed, but can be restarted if symptoms recur. The best-studied medicines include:

- [Verapamil](#), a type of medication called a calcium channel blocker, comes as a pill and has few side effects. The dose may be slowly increased as needed.
- Calcitonin gene-related peptide (CGRP) antagonists are medications that aim to block the transmission of pain. They are taken on a monthly basis until one month after the cluster cycle stops. These medications also have few side effects.

COMPLEMENTARY TREATMENTS FOR HEADACHE

Several therapies can be used along with medical treatment in people with headache.

Lifestyle changes — Some simple lifestyle adjustments can help to reduce the frequency of headaches. These include:

- Stop smoking
- Reduce the amount of alcohol you drink
- Decrease or avoid caffeine
- Eat and sleep on a regular schedule
- Exercise several times per week

While there are no clinical trials proving the benefit of these measures, many headache specialists have found them helpful for their patients.

Physical therapy — Some people with frequent headaches benefit from working with a physical therapist who has a special interest in headaches. This treatment may be used if you do not respond or only partially or temporarily respond to medicines, or if you cannot use medicines (eg, if you are pregnant or breastfeeding).

Acupuncture — Acupuncture involves inserting hair-thin, metal needles into the skin at specific points on the body. It causes little to no pain. Electrical stimulation is sometimes applied to the acupuncture needle. Acupuncture has not been proven to improve tension-type or chronic daily headaches. However, people who do not want to try or who cannot tolerate other treatments may try using acupuncture.

Behavioral therapy — Headaches can be triggered or worsened by stress, anxiety, depression, and other psychological factors. Furthermore, living with headache pain can cause difficulties in relationships, at work or school, and with general day-to-day living.

Behavioral therapy works by helping you to address the stress, anger, or frustration that can come with frequent or chronic headache pain. There are many different types of behavioral therapy:

- Psychotherapy involves meeting with a psychologist, psychiatrist, or social worker to discuss emotional responses to living with chronic pain, treatment successes or failures, and/or personal relationships.

- Group psychotherapy allows you to compare your experiences with headaches, overcome the tendency to withdraw and become isolated in your pain, and support others' attempts with pain management.
- Relaxation techniques can relieve muscle tension, and may include meditation, progressive muscle relaxation, self-hypnosis, and biofeedback (a technique that teaches you to control certain body functions). Biofeedback may be especially helpful for people with chronic tension-type headaches.
- Group skill-building exercises help you to learn about living with pain, including ways to improve relationships and build strength, ways to avoid negative thinking, and learning to deal with pain flares.

Herbal and homeopathic remedies — A number of "homeopathic" remedies and herbs are promoted to relieve or prevent headaches, including migraines. However, the effect of these remedies is not clear and these remedies are not recommended.

WHERE TO GET MORE INFORMATION

Your healthcare provider is the best source of information for questions and concerns related to your medical problem.

This article will be updated as needed on our web site (www.uptodate.com/patients). Related topics for patients, as well as selected articles written for healthcare professionals, are also available. Some of the most relevant are listed below.

Patient level information — UpToDate offers two types of patient education materials.

The Basics — The Basics patient education pieces answer the four or five key questions a patient might have about a given condition. These articles are best for patients who want a general overview and who prefer short, easy-to-read materials.

[Patient education: Headaches in adults \(The Basics\)](#)

[Patient education: Migraines in adults \(The Basics\)](#)

[Patient education: Headaches in children \(The Basics\)](#)

[Patient education: Concussion in adults \(The Basics\)](#)

Beyond the Basics — Beyond the Basics patient education pieces are longer, more sophisticated, and more detailed. These articles are best for patients who want in-depth information and are comfortable with some medical jargon.

[Patient education: Migraines in adults \(Beyond the Basics\)](#)

[Patient education: Headache causes and diagnosis in adults \(Beyond the Basics\)](#)

[Patient education: Headache in children \(Beyond the Basics\)](#)

Professional level information — Professional level articles are designed to keep doctors and other health professionals up-to-date on the latest medical findings. These articles are thorough, long, and complex, and they contain multiple references to the research on which they are based. Professional level articles are best for people who are comfortable with a lot of medical terminology and who want to read the same materials their doctors are reading.

[Acute treatment of migraine in adults](#)

[Overview of thunderclap headache](#)

[Chronic migraine](#)

[Cluster headache: Treatment and prognosis](#)

[Cluster headache: Epidemiology, clinical features, and diagnosis](#)

[Estrogen-associated migraine, including menstrual migraine](#)

[Evaluation of headache in adults](#)

[Evaluation of the adult with nontraumatic headache in the emergency department](#)

[Headache in pregnant and postpartum women](#)

[Headache, migraine, and stroke](#)

[Medication overuse headache: Etiology, clinical features, and diagnosis](#)

[Migraine with brainstem aura \(basilar-type migraine\)](#)

[Overview of chronic daily headache](#)

[Pathophysiology, clinical manifestations, and diagnosis of migraine in adults](#)

[Post dural puncture headache](#)

[Preventive treatment of episodic migraine in adults](#)

[Tension-type headache in adults: Acute treatment](#)

[Tension-type headache in adults: Pathophysiology, clinical features, and diagnosis](#)

[Tension-type headache in adults: Preventive treatment](#)

The following organizations also provide reliable health information.

- National Library of Medicine

(www.nlm.nih.gov/medlineplus/headache.html, available in Spanish)

- National Institute of Neurological Disorders and Stroke

(<https://www.ninds.nih.gov/Disorders/All-Disorders/Headache-Information-Page>)

- American Headache Society

(<https://americanheadachesociety.org>)

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GRAPHICS

Characteristics of common headache syndromes

Symptom	Migraine headache	Tension headache	Cluster headache
Location	Unilateral (one sided) in 60 to 70 percent; occurs on both sides of the forehead or all over the head in 30 percent of cases	Bilateral (involves both sides of the head)	Always unilateral, usually begins around the eye or temple
Characteristics	Gradual in onset, builds up over time; pulsating; moderate or severe intensity; aggravated by routine physical activity	Pressure or tightness which waxes and wanes	Pain begins quickly, reaches a crescendo within minutes; pain is deep, continuous, excruciating, and explosive in quality
Activity	Prefers to rest in a dark, quiet room	May remain active or may need to rest	Remains active
Duration	4 to 72 hours	Variable	30 minutes to 3 hours
Associated symptoms	Nausea, vomiting, photophobia (bothered by light), phonophobia (bothered by sound); may have aura (usually visual, but can involve other senses or cause speech or motor problems)	None	Tearing and redness of the eye on the same side as the headache; stuffy, runny nose; pallor; sweating; eye drooping; rarely neurologic deficits; sensitivity to alcohol

Graphic 76857 Version 3.0

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