

Headaches in Children

Headaches can be a common problem in children.

Between 4% and 10% of children have migraine headaches.

Aren't headaches just headaches?

Headaches can be divided into two categories: primary or secondary.

- **Primary headache** refers to headaches that occur on their own and not as the result of some other health problem. Primary headaches include tension-type headache, migraine, migraine with aura, chronic daily headache, and cluster headache.
- **Secondary headache** refers to headaches that result from some cause or condition, such as a head injury or concussion, blood vessel problems, medication side effects, infections in the head or elsewhere in the body, sinus disease, or tumors.

Worrisome symptoms that should be brought to your doctor's attention include:

- Headaches that awaken a child from sleep
- Early morning vomiting without nausea (upset stomach)
- Worsening or more frequent headaches
- Personality changes
- Complaints that "this is the worst headache I've ever had!"
- The headache is different than previous headaches
- Headaches with fever or a stiff neck or headaches following an injury.

Headache Types

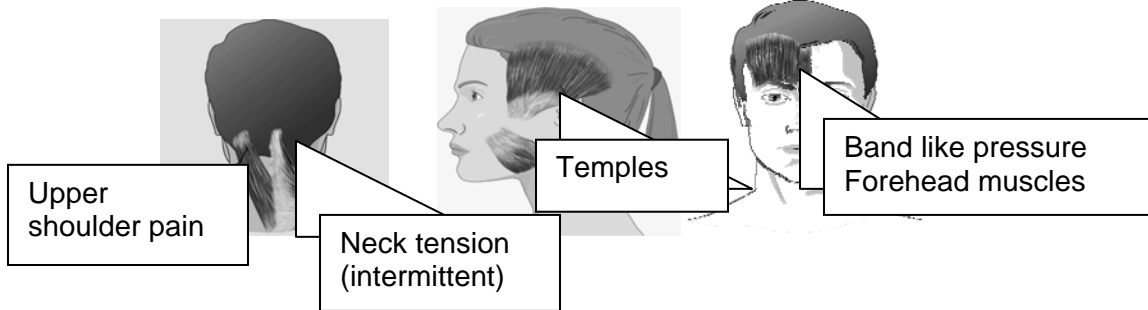
Tension Type Headaches

This type of headache has also been called a tension headache, muscle contraction headache, stress-related headache, and "ordinary headache." These headaches can be either episodic or chronic and may include tightness in the muscles of the head or neck.

A tension-type headache can last from 30 minutes to several days. Some people say "it feels like a band tightening around my head." The pain is usually mild to moderate in severity. Most of the time, these headaches do not affect the child's activity level.

Tension-type headaches are usually not associated with other symptoms, such as nausea or vomiting. Some people may experience sensitivity to light or sound with the headache, but not both. Muscle tightness may be noticed by some patients but doesn't always have to occur.

Common muscles involved with headache and neck pain

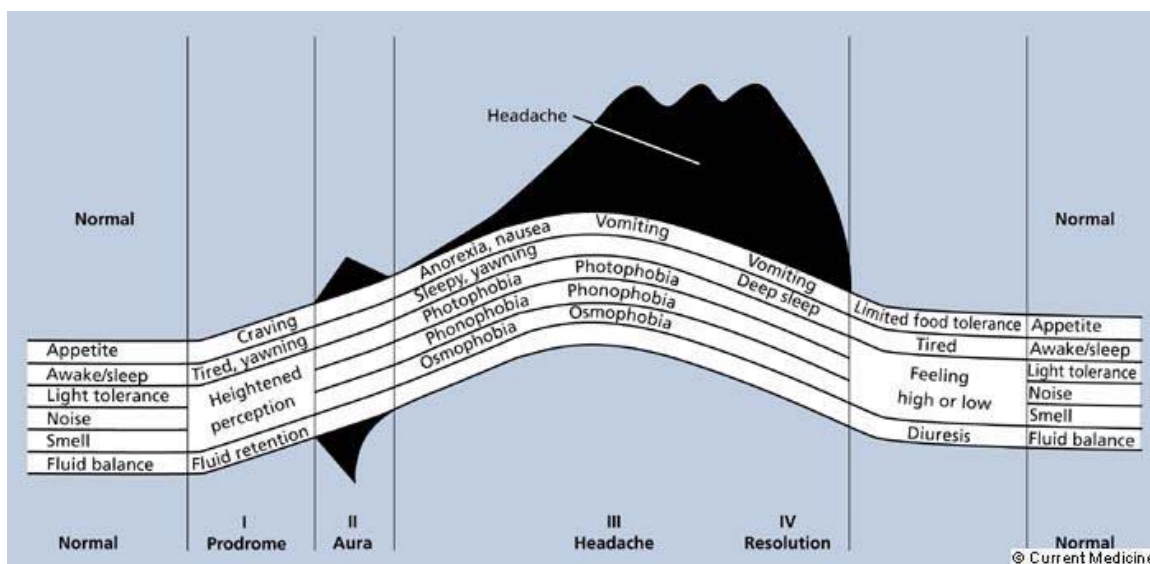


Migraine Headaches

Migraine headaches are recurrent headaches that occur at intervals of days, weeks or months. There may or may not be a pattern to the attacks. For example, some teenage girls may tend to have attacks at a particular point in their monthly menstrual cycle. Migraines generally have some of the following symptoms and characteristics:

- Untreated, they can last from 2 to 48 hours in children. Sleep or medical treatment can reduce this time period. Typically pain is moderate to severe.
- Headache typically starts on one side of the head. This may vary from headache to headache and, in children, they may start in the front or in both temples.
- Throbbing or pounding pain during the headache.
- Pain gets worse with exertion. The pain may be so severe that it is difficult or almost impossible to continue with normal daily activities.
- Nausea, vomiting, and/or stomach pain commonly occur with the attacks.
- Sensitivity to light, sound, or smells is also common.
- Commonly other members of the family have had migraines or "sick headaches."

Warnings called auras may start before the headache. These auras can include blurry vision, flashing lights, colored spots, strange tastes, or weird sensations and usually precede the headache by 5 to 60 minutes.



This graph illustrates common features of a migraine headache. Not everyone experiences all phases of an attack.

- Osmophobia= smell sensitivity; Photophobia= light sensitivity; Phonophobia= noise sensitivity

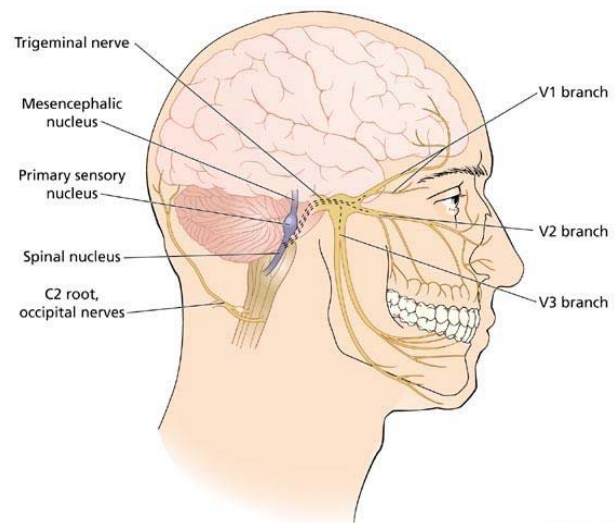
Chronic Daily Headaches

Chronic daily headaches are headaches that occur at least 15 days per month for at least 3 months. Some chronic daily headaches may have started as a migraine and build to a daily frequency over time. These are sometimes called transformed migraines.

Chronic headaches can result from taking some types of medication--for example, acetaminophen (Tylenol), ibuprofen (Motrin), caffeine, and some prescription medications--almost every day. These are called drug rebound headaches or medication overuse headaches. These headaches either return shortly after taking the medication or the medication stops working. The most effective way to make these headaches better is to stop taking pain medicines altogether for 2-3 weeks. After that time, use of pain-relievers is limited to no more than 2 to 3 times per week.

What causes headaches?

There are different theories about the cause of headaches. Often several family members are affected, suggesting genetic factors are partly responsible. Possible reasons for migraine include: blood vessel sensitivity, brain and nervous system changes and serotonin system abnormalities. Medicines used to treat headache disorders often work on these pathways.



Nerve centers associated with migraine

What can I do to prevent my child's headaches?

There are several lifestyle factors that can decrease the frequency and severity of your child's headaches:

1. Make sure your child drinks enough fluids. Children and adolescents need 4 to 8 glasses (8 oz) of fluids per day. Caffeine should be avoided. Sports drinks may also help during a headache as well as during exercise by keeping sugar and sodium levels normal.
2. Make sure your child gets plenty of regular sleep at night (but don't let him/her oversleep). Fatigue and over exertion are two factors that can trigger headaches. Most children and adolescents need to obtain 8 to 10 hours of sleep each night and keep a regular sleep schedule to help prevent headaches. Recent studies have indicated that teenagers should obtain 9.25 hours of sleep.
3. Be sure that your child eats balanced meals at regular hours. Do not skip meals.
4. Try to avoid foods that seem to trigger headaches. Remember that every child is different, so your child's triggers may be different from another child's.
5. Plan and schedule your child's activities sensibly. Try to avoid overcrowded schedules or stressful and potentially upsetting situations.

What do I do if my child gets a headache?

Keep a diary of your child's headaches. Write down everything that might relate to your child's headache (foods, odors, situations), how long it lasted, and how much pain the headache caused. There are daily, weekly, and monthly headache diaries available on the American Headache Society website: www.achenet.org.

Have your child take pain medication for the headache as soon as they feel pain. Follow the doctor's instructions in using the medication and treatment plan.

Your child needs to be able to treat his/her headaches at school. This means that your child's school nurse needs to know the treatment plan so the nurse can provide treatment quickly to prevent the headache from getting worse. It is important that you discuss this with your child's doctor, so that the medication administration forms are completed. You may even need to educate your child's teachers about headaches and migraines.

Remember that using pain-relievers every day can actually cause an increase in your child's headaches. Drinking more fluids (especially sports drinks) during a headache may be helpful in alleviating the headache quicker.

Vitamin and Herbal Treatments (non-FDA approved):

Typically trying 1-2 vitamins listed below (4-6 weeks) in addition to a regular multivitamin and good eating habits are encouraged. There are preliminary studies, but no placebo controlled studies, using these vitamins for headache control.

The first three natural "vitamins" are considered the most safe to use in children.

Riboflavin (vitamin B2): 25-400 mg per day

Riboflavin has been found to be very safe in studies. It may cause the urine to turn a deeper yellow color.

Magnesium: 200-400 mg per day

Magnesium has been found to be a safe and overall effective preventive medication. It may cause loose stools in some patients, particularly at higher doses.

Co-Enzyme Q 10: 100-200 mg per day

Co-enzyme Q 10 has been found to be very safe in studies. It may be more effective for menstrual migraine or in families with a strong history of migraines on the maternal side.

The next three "natural remedies for headache" have more caution in use with children advised because of some inconsistent preparations (different formulations that are hard to regulate) and may have potential side effects.

Melatonin: 1-2 mg

This natural agent is often used to promote sleep in patients, which may be part of the reason it may work to help migraine. No long term studies in children have been done.

Butterbur or Petasites: 75-100 mg once or twice a day

This herb has been found helpful in some studies with headaches. In rat studies, high doses of butterbur has been linked with cancer, liver and blood problems. Preliminary studies in humans have not found this, but future studies need to be done.

Feverfew or MIG-99: 6.25 mg three times a day

A recent study showed adverse events occurred in 8.4% of subjects receiving feverfew and 10.2% of placebo controls. Adverse reactions include sore mouth and tongue (including ulcers), swollen lips, loss of taste, abdominal pain, and GI disturbances. A "post-feverfew syndrome" of joint stiffness and aches and increasing headaches may occur.

Alternative or Complementary Treatments:

- Biofeedback: Look at your insurance carrier for a psychologist trained with biofeedback. Wild Divine offers a commercially available home relaxation program called Healing Rhythms (www.wilddivine.com).
- Muscle relaxation, physical therapy, massage therapy, chiropractic therapy, acupuncture therapy.
- Botox injections (typically done every 3 months for a period of time). Please ask your neurologist if you would like information about botox injections for use in headache patients.

Websites for more information on headaches:

www.achenet.org
www.migraines.org
www.discoveryhealth.com