Migraine Headache in Children

Treatment

Self-Care at Home

Sleep is the best treatment for a migraine. Sleep restores normal brain function, relieves pain, and resolves many associated migraine symptoms. Doctor-prescribed or recommended pain-relieving drugs should be given to the child migraineur.

Medical Treatment

Medical treatment of migraine headaches in children is based on the following: (1) education of children and parents about migraine triggers, (2) creation of a plan of immediate treatment for the attacks, and (3) consideration of preventive medicines or measures for children with frequent migraines.

Education

The doctor should explain the disease to the child and the parents. The treatment of children with mild, infrequent migraine attacks consists mainly of rest, trigger avoidance, and stress reduction.

The doctor should also assure parents that the headache is not caused by a brain tumor or other life-threatening condition. A regular bedtime, strict meal schedules, and not overloading the child with too many activities are important. Helping the child recognize migraine triggers is helpful but often difficult. Getting rid of migraine triggers reduces the frequency of headaches in some children but does not completely stop occurrences. A headache diary can be used to record triggers and features of attacks. Triggering factors that occur up to 12 hours before an attack should be noted. Other important factors to include are as follows:

- Date and time the attack started
- Type and location of headache pain
• Symptoms before the headache
• All food and drink consumed
• Bedtime, wake time, and quality of sleep
• Menstrual periods or female hormones (if applicable)
• Activities before the headache
• Medications taken and their effects

Unfortunately, even the most diligent people cannot always identify specific migraine triggers.

**Immediate treatment**
At the time of attack, parents should have the child lie down in a cool, dark, quiet room to help him or her fall asleep. Sleep is the most powerful and best antimigraine treatment. During a migrainous attack, a child can often be found resting in the fetal position with the affected side of the head down. Some children find that ice or pressure on the affected artery can reduce pain for a short time. Nonsteroidal anti-inflammatory drugs (NSAIDs) are effective if taken at a high but appropriate dose during the aura or early headache phase. Common over-the-counter (OTC) NSAIDs include ibuprofen (Advil), naproxen (Aleve, Naprosyn), and acetaminophen (Tylenol). Digestion temporarily slows or stops during migraine attacks, delaying absorption of oral medications. Occasionally, carbonated beverages may improve absorption. Other treatment methods, such as self-relaxation, biofeedback, and self-hypnosis, may be reasonable alternatives to drug therapies in childhood migraine, particularly in adolescents. Response rates in children tend to be higher than in adults and show continued effectiveness over time.

**Prevention**
The primary goals of preventive drug therapy are to prevent migraine attacks and to reduce the frequency and severity of attacks. Half of all patients experience a 50% reduction in migraines (at most). Most preventive migraine medications have potential side effects, so only children with at least 1-2 attacks a week should take them. Parents should have realistic expectations. While medications lessen the impact of migraines, they do not get rid of the underlying causes.

• Diet: An estimated 20-50% of migraineurs (people who have migraines) are sensitive to foods. These dietary triggers are thought to cause a
change that provokes a migraine attack. Helping children learn to recognize and avoid these triggers is helpful but often difficult. The following are some common dietary triggers:

- **Tyramine**: Individuals with low levels of a substance called phenolsulfotransferase P are believed to be sensitive to dietary monoamines (a type of molecule) such as tyramine and phenylethylamine. Cultured dairy products (for example, aged cheese, sour cream, buttermilk), chocolate, and citrus fruits are believed to cause vasodilation (widening of the blood vessels) in certain people. Some migraines may be triggered by artificial sweeteners like aspartame.

- **Beverages**: Alcoholic beverages (especially red wine) and excess of or withdrawal from caffeinated drinks like coffee, tea, cocoa, or colas may trigger a migraine headache. Migraineurs should limit caffeinated sources to no more than 2 cups per day to prevent caffeine-withdrawal headaches. Caffeine can be found in chocolate-containing foods and candies; therefore, children with migraines should avoid them.

- **Nitrates and nitrites**: These vasodilating agents are found in preserved meats. Examples of foods containing these chemicals include lunch meats, processed meats, smoked fish, sausage, pork and beans with bacon, sausage, salami, pastrami, liverwurst, hot dogs, ham, corned beef, corn dogs, beef jerky, bratwurst, and bacon.

- **Monosodium glutamate (MSG)**: MSG is a flavor enhancer and vasodilator found in many processed foods. Food labels should be checked carefully. MSG sources include Accent seasoning, bacon bits, baking mixtures, basted turkey, bouillon cubes, chips (potato, corn), croutons, dry-roasted peanuts, breaded foods, frozen dinners, gelatins, certain Asian foods and soy sauce, pot pies, relishes, salad dressing, soups, and yeast extract.

- **Citrus fruits, avocados, bananas, raisins, and plums**: These foods may be triggers. Although a few individuals are sensitive to fruit, children with migraines should still eat a well-rounded, natural diet that includes fruits and vegetables and avoids processed foods. A headache diary may be helpful (a pattern often emerges after 6-8 weeks). Care must be taken to avoid creating an unnaturally limited diet that harms a child's growth and development.
• Drugs: Cimetidine (Tagamet), hydralazine (Apresoline), nifedipine (Procardia), nitroglycerin (Nitro-bid), ranitidine (Zantac), and other drugs often used by adults can increase migraine frequency. Both OTC and prescription medications can trigger or worsen migraine headaches.

Excessive use of OTC pain medications and analgesics can cause occasional migraine attacks to convert to analgesic-abuse headaches or drug-induced headaches that do not respond to treatment. Children with migraines should avoid frequent or long-term use of NSAIDs, acetaminophen, triptans, or ergotamines. Migraineurs who have been treated for a long time with amphetamines (Biphetamine), phenothiazine (a type of antihistamine), or propranolol (Inderal) should avoid sudden withdrawal from these medications because migraine headaches may result.

• Activity: In children who have an inborn tendency for migraine headaches, attacks can occur as a result of psychological (emotional), physiological (internal body processes), or environmental triggers. Physical exertion and travel or motion can be triggers.
  
  o Psychological triggers: These include stress, anxiety, worry, depression, and sadness. Migraine headaches are not an imagined or psychological illness. Stress makes an underlying tendency for migraine more difficult to manage. The frequency of migraines can be reduced but not eliminated by maintaining a healthy lifestyle.

  o Physiological triggers: These include fever or illness and not getting enough food, rest, or sleep. Children with migraines should stick to a routine with regular meal times and adequate sleep.

  o Environmental triggers: These include fluorescent light, bright light, flickering light, fatigue, barometric pressure changes, high altitude, strong odors, computer screens, or rapid temperature changes. Some migraineurs report that complex visual patterns like stripes, checks, or zigzag lines trigger their migraines.

  o Physical exertion: Activity can trigger childhood migraine. Some migraineurs report that they are more likely to get a headache after participating in sports or being extremely active. Minor head trauma (for example, being hit in the head with a ball, falling on one’s head) may also result in a migraine attack.

  o Travel or motion: This may cause migraine, particularly in young children.
Consultations
If headaches cannot be reasonably controlled within 6 months, the child should see a pediatric neurologist (a person specializing in the treatment of brain/nerve disorders). Children who suddenly develop new neurologic problems, such as weakness, thinking difficulties, or seizures, should also see a pediatric neurologist.


WebMD Medical Reference from eMedicineHealth
Reviewed by Charlotte Grayson, MD on May 24, 2006
Last updated: May 24, 2006
This information is not intended to replace the advice of a doctor.
© 2006 WebMD Inc. All rights reserved.