

Children with Migraine

a guide for parents



Akeso Health Sciences – [MigreLief.com](https://migreLief.com)

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Introduction

There is a common misconception that migraines only happen to adults. It's not true. Migraines can happen to anyone at any age. If you have a child who suffers migraines, you know how debilitating they can be and how helpless a parent can feel. This guide will provide you with insight, information, options, and useful tips to make a difference in your child's life.

CHILDREN'S MIGRAINES SHOULD NOT BE DISMISSED

Migraines interfere with all aspects of a child's life at home, in school and can cause permanent changes in the brain and lead to an increased risk of depression. If your child tells you he or she has a headache, or a stomachache, listen carefully and take him or her seriously. Many parents do not seek medical help for their children. There are many reasons for this.

Not only is migraine difficult to diagnose if you don't know the various signs or symptoms to look for, but also, migraines and headaches are still stigmatized and associated with truancy behavior even though awareness is certainly growing. Parents and teachers may feel a child is faking a headache to avoid school or other activities. Often people think headaches are a normal part of life and that little can be done; whereas many other common childhood conditions such as asthma, epilepsy and diabetes are well recognized. Some parents also think kids will grow out of them, when in fact episodic migraines left untreated can become chronic (constantly recurring) over time.

Doctors can sometimes be too quick to dismiss migraines in children as simply growing. Pediatric migraines often go undiagnosed because unlike adults, children cannot easily communicate to their parents or physicians just what type of symptoms they're experiencing. In many cases crying, lack of focus and symptoms of depression are attributed to things other than the actual problem. Migraines may also be under-diagnosed by doctors, due to the prominence of non-headache symptoms and the shorter duration.

Migraine Facts & Statistics – You're Not Alone

- Kids can get migraines at any age. Migraine has been reported in children as young as 18 months. Recently, infant colic was found to be associated with childhood migraine and may even be an early form of migraine.
- About one out of every 10 kids, or nearly 8 million children in the United States alone are plagued by what has become the most common acute and recurrent headache pattern experienced by children today.
- A child who has one parent with migraine has a 50% chance of inheriting it, and if both parents have migraine, the chances rise to 75%.
- Migraines may occur with or without aura and last in children from 30 minutes to 48 hours. (Migraine aura is the collective name given to the many types of neurological symptoms that may occur just before or during a migraine such as visual, sensory, motor or verbal disturbance.)
- Common precursors and symptoms of child migraine; cyclical vomiting, abdominal migraine pain, vertigo, and sensitivity to light.
- About 10% of school-age children suffer from migraine, and up to 28% of adolescents between the ages of 15-19 are affected by it.
- Half of all migraine sufferers have their first attack before the age of 12.
- Migraines are more common in boys than girls until girls begin menstruation
- Migraine in children can differ from migraine in adults. Non-headache and neurological symptoms (aura) may be more prominent than the headache.
- Child Migraine is often under-diagnosed by doctors, possibly due to the prominence of non-headache symptoms



Migraine Symptoms in Children & Teens

A common symptom of migraine is a severe, incapacitating headache that can strike suddenly often with accompanying symptoms of nausea, abdominal pain, and vomiting. Head pain is only one symptom of migraine. Many children and adults can experience a migraine attack with no head pain.

While adults typically have one-sided headaches, children often experience pain on both sides of the head, and the headaches are commonly accompanied by sensitivity to light and sound. Pediatric migraines are usually much shorter in duration than adult migraines, making them hard to treat. Sometimes the child will develop a severe headache, stomach pain or nausea, and then vomit and the episode is over. For this reason, parents and doctors alike may misdiagnose. Migraines may be chronic (daily, weekly, monthly) or episodic, such as once or twice a year.



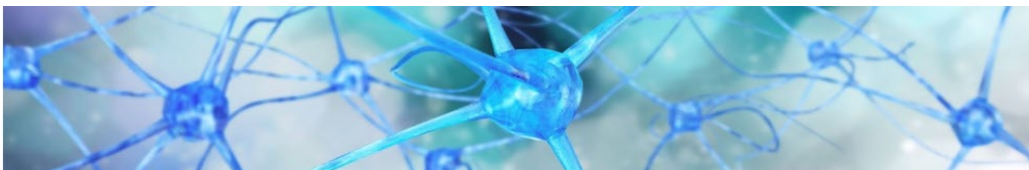
Symptoms of migraine in children and teens may include:

- Pain on one or both sides of the head, often pounding or throbbing
- Moderate to severe pain intensity. Pain gets worse with activity and more relieved with rest
- Nausea
- Vomiting
- Photophobia (sensitivity to light)
- Phonophobia (sensitivity to sound)
- Migraine aura (visual, sensory or speech disturbances, numbness)
- Abdominal pain with or without headache
- Even infants can have migraines. A child who's too young to tell you what's wrong may cry and hold his or her head to indicate severe pain

What is a Migraine? Theories About Migraine Pain

Migraine is a neurological disorder that can cause multiple symptoms including throbbing head pain. While there are many things experts still don't know about migraines, research suggests that there may be a chemical or anatomical difference in migraine sufferers' brains that make them more susceptible to certain migraine triggers. There are no blood tests for migraines. Migraines don't cause brain abnormalities that a CT scan or an MRI can detect, although these tests are sometimes ordered to diagnose other problems that cause severe headaches.

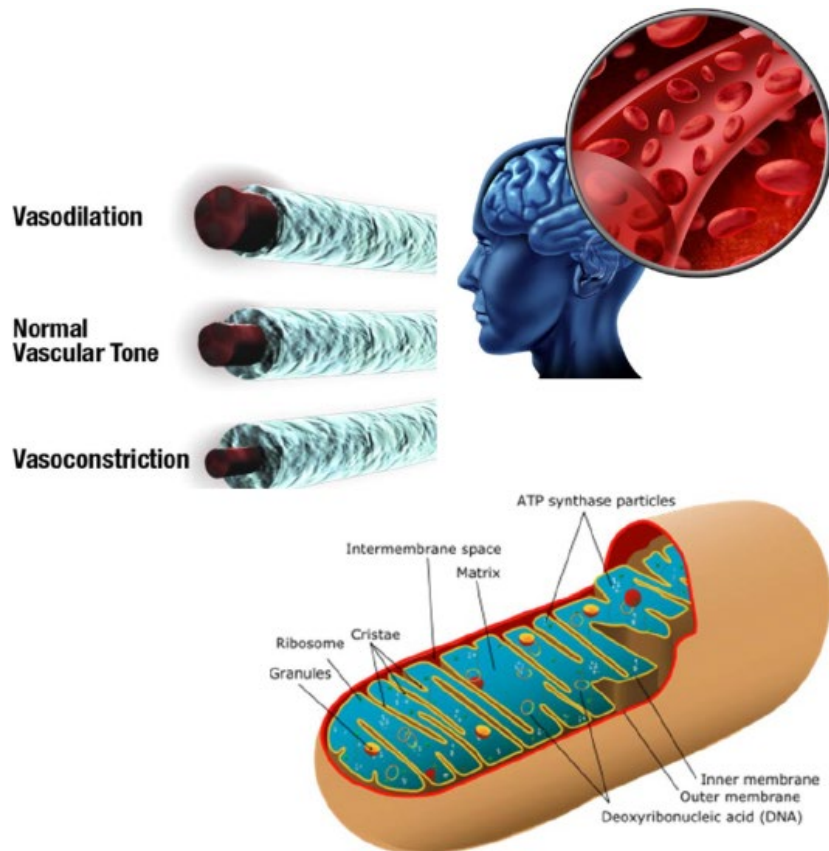
1. **Vascular & theory:** Headache researchers have suggested fluctuations in blood flow and blood vessels in the brain contribute to migraine pain. Fluctuations refer to the widening and narrowing (dilation and constriction) of blood vessels. According to the vascular theory, vasoconstriction (narrowing of brain blood vessels and reduced blood supply) occurs during an **aura** (sensory disturbances). The blood vessels then rebound and slam open (dilate/widen) often causing vasospasms and throbbing head pain. Whether these vascular fluctuations initiate the migraine pain or merely contribute to it, is still unknown.
2. **Trigeminovascular theory:** This theory focuses on the relationship between the trigeminal nerves and intracranial vessels. Neurogenic inflammation which originates in the trigeminovascular system, can act on the trigeminal nerves and cause a migraine attack. When blood vessels widen they activate pain receptors on the network of trigeminal nerves that service the meninges and other parts of the head.
3. **Neuronal theory** – A newer theory is that migraines originate in the brain, not with the blood vessels that surround it. Many researchers believe migraine is an electrical disease of the brain where the excessive excitement of nerve cells in the cerebral cortex is the origin of migraine. Rapid waves of activity by groups of excitable brain cells can trigger chemicals such as serotonin. Serotonin is a chemical necessary for communication between nerve cells and can cause narrowing of blood vessels throughout the body. When hormones such as serotonin or estrogen levels change, the result for some can be a migraine. Serotonin levels may affect both males and females but fluctuating estrogen levels only affect females. This theory believes that while changes in blood flow and blood vessels don't initiate pain, they may contribute to it.



4. **Metabolic theory:** Evidence suggests that migraine is a response to cerebral energy deficiency or oxidative stress levels that exceed antioxidant capacity and that the attack itself helps to restore brain energy homeostasis and reduces harmful oxidative stress levels. Also, studies suggest that many migraine sufferers, just before an attack, have been known to be deficient in mitochondrial energy reserves (the powerhouses of brain cells).

Dysfunctional brain processes that may trigger or contribute to migraine attacks:

- Fluctuating blood flow due to fluctuating blood vessel sizes (constriction and dilation)
- Blood platelet aggregation (clumping together of blood platelets in vessels)
- Mitochondrial energy deficiency (low energy in the powerhouses of brain cells)





What triggers migraines?

It is not clear why migraines occur. Here are a few of the usual suspects:

- **Family history.** Migraines tend to run in families. If one parent has migraines, there is roughly 50% chance that their child will too. If both parents have them, the chance is close to 90%.
- **Gender.** Before puberty, boys have more migraines than girls. That changes in the teen years and by age 17, as many as 8% of boys and 23% of girls have had a migraine. For adults, migraines are more common in women.
- **Stress & Sleep.** Irregular sleep schedules – getting too much or too little sleep – can be migraine triggers. So are changes in stress levels.
- **Exercise.** While exercise can sometimes trigger migraines, regular exercise may help prevent or reduce the number of attacks.
- **Food & Fluids.** Skipping meals and eating certain foods and additives can set off migraines. Common triggers include aged cheeses and meats, chocolate, citrus fruits, red and yellow food dyes, monosodium glutamate (MSG), and the artificial sweetener aspartame. Too much caffeine and spicy foods can also trigger migraines, but sometimes help headaches because they act as vasodilators and expand blood vessels. Not drinking enough water and other beverages can cause dehydration, another migraine trigger.
- **Weather.** Stormy weather with changes in barometric pressure, extreme heat or cold, bright sunlight and glare, high humidity or very dry air all can be triggers.
- **Chemicals** in the air, such as tobacco smoke, perfume, glue, paint, or cleaning products



THE FOUR STAGES OF MIGRAINE

Migraines often progress through four stages. Your child may or may not have all four stages and the stages may not be the same every time a migraine occurs.

Prodrome (warning phase): In this early stage, your child may feel tired, uneasy, or moody. It may be hours or days before the headache pain begins. Other preliminary signs may include:

- yawning
- light sensitivity
- irritability
- depression
- increased urination
- food cravings
- difficulty concentrating
- difficulty sleeping

Aura: Up to an hour before a migraine, your child may experience an aura (odd smells, sights, or sounds). This may include:

- flashing lights, stars or sparkles of light, zig-zag lines
- blind spots (scotomas) or colored spots
- tunnel vision or temporary loss of sight
- confusion
- slurred speech / trouble speaking.
- numbness and tingling on parts of the body

Headache (attack): Your child has pain in one or both sides of the head or experience abdominal pain without a headache, or vertigo with or without head pain. This stage can last from an hour to 1-3 days. Migraine duration are usually shorter in children however. Other symptoms include:

- throbbing pain one or both sides of head (usually frontal area)
- nausea, vomiting and or diarrhea
- sensitivity to light, sound, and odors
- Sweating
- numbness
- Lightheadedness or dizziness

Postdrome (recovery): For about a day after the migraine ends, your child may feel fatigue, confusion, trouble concentrating, neck stiffness, muscle aches and a mild headache or head pain that flares up when bending over or moving too quickly.

TYPES OF MIGRAINE IN CHILDREN

EPISODIC SYNDROMES THAT MAY BE ASSOCIATED WITH MIGRAINE

Migraine equivalents are under-recognized and underreported manifestations of childhood migraine. Occasionally these variant migraines alternate with typical migraine symptoms. As children mature, they often develop more common forms of migraine. These variants include:

- **Paroxysmal torticollis of infancy** - a rare disorder is characterized by repeated episodes of head tilting and is associated with nausea, vomiting, and headache. Attacks usually occur in infants and may last from hours to days.
- **Benign paroxysmal vertigo** - episodes of vertigo, disequilibrium, and nausea (usually found in children 2-6 years of age.)
- **Acephalgic migraine** – episodes of migraine aura (usually visual) without headache
- **Abdominal migraine** – recurring bouts of generalized abdominal pain with nausea and vomiting, no headache. Child often falls asleep and awakens several hours later feeling better. Abdominal migraine may alternate with typical migraine and lead to typical migraine as child matures.

Classic Migraine (also called migraine with aura) – This is a severe headache that strikes before or at the same time as sensory disturbances called “aura.” Children under the age of 10 often experience classic migraine in the late afternoon. Around age 12 and above the onset may change to early morning. About 10% of children with migraine experience one or more auras, which are warning signs and most commonly visual; blurred vision, blind spot, or flashing lights. Auras could also be speech disturbances, sensory changes or motor weakness like tingling in hands or face or ringing in the ears.

Basilar Migraine (often called migraine with brainstem aura - MBA) This type of migraine starts in the lower part of the brain called the brain stem. Typical symptoms can include visual disturbances in both eyes (double vision), speaking difficulties, lack of coordination, tingling in the hands and feet, dizziness, vertigo, or ringing in the ears. Each of these symptoms usually only lasts up to one hour. Many symptoms may occur with anxiety and hyperventilation, which makes migraine difficult to diagnose

Ophthalmoplegic Migraine - This type of migraine is a nervous system problem that affects the eyes. There may be pain surrounding the eye, droopy eyelids, or double vision. Harsh lights and screens, eyestrain, and other weakening visual activities can trigger ophthalmoplegic migraine attacks.

Retinal (Ophthalmic) Migraines- These migraines involve repeated attacks of black spots (scotomas) or temporary blindness in one eye, usually followed by a headache (but not always). They can start with a pattern of black spots that gradually get bigger and cause complete loss of vision in one eye. This can last 10 to 20 minutes to an hour.



Abdominal Migraine

Abdominal migraine is one of the most common causes of abdominal pain in children and can also occur in teens and adults. Although the pain will come and go, it is severely debilitating during a migraine episode, is very distressing for children. Recurring abdominal pain can have a drastic effect on a child's overall quality of life and school performance.

Abdominal pain in childhood accounts for 2-4% of office visits to the doctor and 50% of referrals to pediatric gastroenterologists. Even though it is a well recognized type of pediatric migraine with specific diagnostic criteria under the International Classification of Headache Disorders, it is often underdiagnosed by both pediatricians and pediatric gastroenterologists. The diagnosis of abdominal migraine is much more prevalent in Europe than in the United States. In the U.S. it is often misdiagnosed as doctors are still struggling to understand it. Many doctors can only make an accurate diagnosis years after the abdominal migraines when the child becomes a teen and then develops classic migraines. Parents should be extra cautious as children could be subjected to unnecessary surgery if the condition is misdiagnosed. Children with a family history of migraine are at higher risk for abdominal migraines, including children who experience motion sickness. It is more prevalent in girls than in boys. The triggers for abdominal migraines are similar to the things that trigger normal migraines.

Abdominal migraines are diagnosed in children who meet these criteria:

- At least five attacks of abdominal pain that each last 1 to 72 hours
- Dull pain around the belly button, moderate to severe in intensity
- At least two of these symptoms: appetite loss, nausea, vomiting, pale skin
- Other abdominal migraine symptoms may include, headache and sensitivity to light and sound.

Abdominal migraines usually follow a pattern, same type of appearance, same time of day, and same duration with the symptoms going away completely between migraines. Doctors may use ultrasound or endoscopy to check for other potential causes of your child's stomach pain and evaluate your child's medical history to determine a pattern.

Migraine Prevention for Kids

How to Help Your Child Predict (and Prevent) Migraines



Researchers are discovering "migraines beget migraines" - the more migraines someone has, the greater the tendency for future migraines. Evidence shows an increased sensitivity after each successive attack, eventually leading to chronic daily migraines in some individuals. In order to avoid a lifetime of migraines, it is imperative to lower the frequency and intensity of migraines as soon as possible.

Prevention is key!

It is your role as a parent to help your child understand how to predict and prevent migraines through self-care skills. You can do this in 3 ways:

1. Track the migraines (and the migraine triggers)
2. Focus on a healthy lifestyle
3. Promote relaxation

1. Track the migraines

Migraine Triggers: Pay attention to what times of day or which situations lead to headaches. Become a detective and discover your child's migraine triggers.

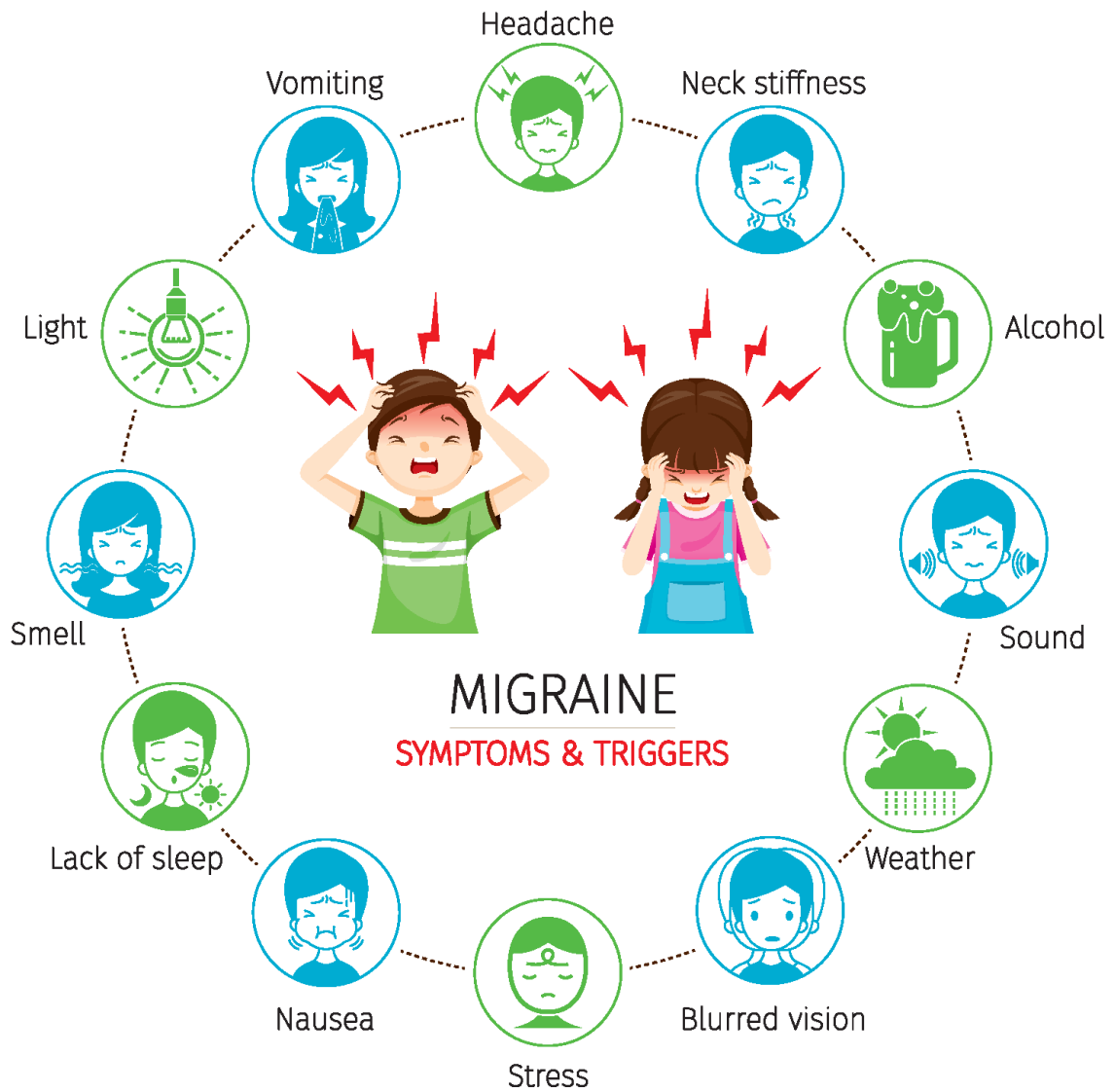
Keep a Migraine/Headache Diary - By keeping a diary, you can easily identify your child's specific migraine triggers. . [Click Here](#) for a printable migraine diary, or install one of many migraine diary applications on your smart phone. Once you discover a pattern in your child's migraine occurrences, and note the triggers, teach your child to avoid them.

Here are examples of the things you could keep track of for your child:

- times and severity of headaches & other migraine symptoms
- what your child ate or drank
- the weather
- stressful situations or other suspected triggers
- sleep schedule
- medications your child may be taking and any side-effects
- the success or failure of any therapies you may be trying

Common triggers include: Lack of sleep, weather changes (barometric pressure), stress, worrying, fatigue and getting overtired, skipping meals, becoming dehydrated, eating certain processed foods, and consuming sugary or caffeinated drinks.

- **Food triggers** – Learn which foods trigger your child's migraines if any and learn to avoid them. Again, some common triggers include:
 - processed meats
 - aged cheeses
 - chocolate
 - artificial sweeteners, especially aspartame
 - MSG
 - caffeine
- **Hydrate** – Drinking plenty of water is important especially for migraine sufferers. Encouraging your child to reach for water as opposed to sugary drinks is important.
- **Pay attention to the weather** - Changes in the weather due to barometric pressure can impact migraine patterns. High humidity and hot temperatures can stimulate headaches, as well as rainy days. If the weather becomes uncomfortable for your child, it may be a good idea to step inside and take a break from the outdoors. Of course, you can't always avoid going outside, but you can minimize time spent in certain headache-inducing weather.





2. Live a Healthy Lifestyle

The migraine brain loves consistency, so basically any change can trigger an attack in a hyper-responsive brain. Modifying lifestyle for the prevention of migraines and headaches includes being consistent.

- **Sleep** - Make sure your child is getting enough sleep each night and maintaining as close to a consistent sleep schedule as possible (going to bed and waking up at the same time each day). Getting young children and adolescents to bed early can be challenging. The American Academy of Pediatrics recommends keeping bedtime manageable and under 30 minutes.

Children learn by watching their parents and other adults, so parents should be mindful of the examples that they are setting even during "unimportant" activities like going to bed at a certain time. Have your child turn off his or her devices (smart phone, tablet, television, computer) at least one hour before bedtime. Excessive blue light exposure from screens can throw off circadian rhythm making it difficult to fall asleep and stay asleep. Because kids benefit from structure, following a bedtime routine is the best way of getting children to develop the healthy sleeping habits that they may carry into adulthood. Sleep is the most successful tool you and your child can rely on for maintaining physical and mental health as well as longevity.

- **Hydration** – Drinking plenty of water every day is important for migraine sufferers. A fast majority of people are chronically dehydrated as they opt for more flavorful alternatives. Unknowingly they become more dehydrated by drinking sugary beverages and caffeinated drinks. Children age 4-8 should drink approximately 7 cups a day, age 9-13 9-10 cups, and 14-18, 10 cups of water.. Beverages should not contain caffeine or artificial sweeteners
- **Exercise.**- Encourage your child to exercise at least 3 days a week. Many children spend a great deal of time in front of a computer screen or mobile device. Keep them moving as exercise increases blood flow in the body and to the brain, can be a great way to channel nervous energy, plus it releases feel-good endorphins that boost your child's mood.
- **Dietary supplements for children and teens with migraine**
Consider a nutritional regimen of [dietary supplements](#) whose ingredients have been shown in clinical studies to be beneficial for both adults and children with migraines.



Healthy Diet

Eating 3 healthy well balanced meals per day is important for migraine sufferers. Remember to avoid processed foods, added sugars. Eating wholefoods (foods as close to the original source as possible) is best. Here is a of healthy foods that will also help build your child's immune system.

Please be sure to have your child drink plenty of water every day, especially when you start adding fibrous foods to their diet. Consuming fiber without water can cause constipation rather than prevent it. So here are some examples of high fiber foods:

- Baked beans, kidney beans, split peas, dried limas, garbanzos, pinto beans and black beans
- Bran cereals – Bran Buds and All-Bran
- Fresh or frozen lima beans or green peas
- Dried fruit, figs, apricots and dates
- Raspberries, blackberries and strawberries
- Sweet corn, whether on the cob or cut off in kernels
- Whole-wheat and other whole-grain cereal products. Rye, oats, buckwheat and stone-ground cornmeal are all high in fiber. Bread, pastas, pizzas, pancakes and muffins made with whole-grain flours.
- Broccoli-very high in fiber! Carrots and Brussel sprouts
- Baked potato with the skin (the skin when crisp is the best part for fiber) Mashed and boiled potatoes are good too, but not French fries, which contain a high percentage of fat
- Green snap beans, pole beans, and broad beans
- Plums, pears, cherries, bananas, coconuts and apples
- Raisins and prunes
- Greens including spinach, beet greens, kale, collards, Swiss chard and turnip greens
- Nuts, especially almonds, brazil nuts, peanuts, and walnuts
- Flax seed, (ground flax seed can be added to smoothies or sprinkled on fruit or yogurt.

Try to work some of the foods from each category into your daily diet. Of course, don't take any of these recommended foods, if you feel that they trigger your migraines. This helpful guide is just a guide, not a rule book. Your experience is the truth that you need to follow.



3. Promote Relaxation & Reduce Stress

Physical and mental tension can lead to headaches and migraines or make them worse. Simply telling a child to relax doesn't help. Relaxation is a skill and like other skills, it must be learned, practiced and mastered over time.

Imagine a favorite place

A child's imagination is a powerful tool to use to help them take a mini vacation to their favorite place, no matter where they are

Deep breathing

There are many different ways to talk with kids about deep breathing. A simple one is to tell kids to breathe in like they are smelling a flower and breathe out like they are blowing out birthday candles. The 4-7-8 breathing technique or "relaxing breath" involves breathing in for 4 seconds, holding the breath for 7 seconds and exhaling for 8 seconds. This can be done anywhere at any time, including bed time to help your child fall asleep faster.

Take a mindful walk

Taking a walk and getting out in nature is a great way for kids to calm down. Take a few minutes of the walk and make it mindful - have them use their senses and focus on what they notice - what do they smell? what do they notice with their eyes? what do they hear? It's a great way to introduce mindfulness to kids!

Get moving!

Exercise can be a great way to channel nervous energy. It increases blood flow to all body tissues, which means more oxygen and nutrients for the body's cells, including the brain. Plus, it releases feel-good endorphins that boost your child's mood. Encourage your child to pick up a n active hobby or sport, go on walks with you or do three laps around the yard. Whatever works best wherever you happen to be at the time.

How are migraines prevented and treated?

Call your child's health care provider right away if your child has any of the following:

- Fever and stiff neck with a headache
- In a child of any age who has a temperature of 103°F (39.4°C) or higher
- A fever that lasts more than 24-hours in a child under 2 years old, or for 3 days in a child 2 years or older
- A seizure caused by the fever
- Headache pain that seems different or much worse than previous episodes
- Headache upon awakening or in the middle of the night
- Dizziness, clumsiness, or other changes with a headache
- Migraines that happen more than once a week or suddenly increase in frequency
- For any reason, if you are concerned about your child's health.

TREATMENT – ACUTE & PREVENTIVE

Your doctor may suggest lifestyle changes, prescription medicine, or natural therapies (supplements) for both acute and preventive measures.

ACUTE treatments- (treating the symptoms/pain while it's occurring)
Your child's doctor may recommend or prescribe medications or natural supplements that can help during a migraine attack. These work best when taken at the first sign of an discomfort. Keep in mind that medication overuse headaches may start if drugs are used daily or too frequently. Examples of medicines that may be prescribed during a migraine include:

- Analgesic pain medicines such as acetaminophen and products that combine acetaminophen, aspirin and caffeine, and nonsteroidal anti-inflammatory medicines such as ibuprofen and naproxen.
- Triptans, a category of drugs called selective serotonin receptor agonists. They do not provide preventive treatment and are not a cure.
- Natural supplements such as ginger, boswellia-serrata, feverfew and magnesium have been shown in [clinical studies](#) to be beneficial on-the-spot support for migraine sufferers

PREVENTIVE treatments- There are some medications that can benefit migraine sufferers when taken daily. These tend to be “off-label,” meaning they are not approved by the U.S. Food and Drug Administration for migraines. Their risks and benefits should be discussed with your doctor. Options include:

- Cardiovascular drugs: propranolol
- Antidepressants drugs: amitriptyline
- Anti-seizure drugs: topiramate
- Antihistamines: cyproheptadine

Botox treatments – not recommended for children with migraines

Although botulinum toxin (Botox) is approved and may help some adults who get chronic migraines, a recent American Academy of Neurology report found that it is not effective for children and teens.

ALTERNATIVE OPTIONS FOR CHILDREN WITH MIGRAINES

Cognitive Behavioral Therapy (CBT) – CBT focuses on coping skills, positive thinking, sticking to healthy habits, and relaxation techniques to help ease migraine pain.

Strategic Nutritional Support - Herbs, Vitamins and Minerals. Certain natural extracts and supplements have been shown in human clinical studies to significantly benefit adults and children suffering migraines. It is always a good idea to talk with your child's doctor before starting any dietary supplement. Common supplements proven in [clinical studies](#) to support migraine sufferers age 2 through adult, include:

- **Feverfew**

The herb feverfew (*Tanacetum Parthenium*) has been recorded as a medicinal remedy for millennia. Commonly recommended for its ability to support cerebrovascular tone and function, this plant contains parthenolide, which studies suggest are very beneficial to migraines sufferers. Feverfew has been known to inhibit blood platelet aggregation (the clumping/sticking together of blood platelets). Over aggregating of platelets in the blood appear just before a migraine, forcing a release of serotonin. Serotonin causes the blood vessel to constrict, leading to head pain.

- **Riboflavin (Vitamin B-2)**

Research has shown that a mitochondrial defect may reduce an individual's threshold to migraine triggers and lead to migraines. A deficiency of mitochondrial energy reserves has been observed in many people exhibiting poor cerebrovascular tone. Riboflavin is a water-soluble vitamin that helps the

body convert food to energy. It is a precursor of flavin adenine dinucleotide (FAD) and flavin mononucleotide (FMN) which unlike CoQ10 are involved in all three cellular energy production processes; glycolysis, Krebs cycle and electron transport. At the proper dose, riboflavin helps maintain healthy mitochondrial energy reserves which is very beneficial to migraine sufferers.

- **Magnesium**

Studies have shown migraine sufferers with poor cerebrovascular tone have low levels of magnesium. Magnesium is a mineral that is necessary for healthy bodily function as it promotes heart health, stabilizes blood pressure, regulates nerve and muscle function and builds bone, DNA and protein. Magnesium is intimately involved in the control of N-methyl-D-aspartate (NMDA) glutamate receptors which play an important role in pain transmission in the nervous system and in the regulation of cerebral blood flow.

Magnesium has numerous effects that support cerebrovascular tone and function including the following mechanisms of action:

- Inhibition of platelet aggregation (the clumping together of blood platelets)
- Interference with synthesis, release and action of inflammatory mediators
- Direct alterations of cerebrovascular tone
- Inhibition of vasospasm (the sudden constriction of a blood a brain blood vessel which reduces blood flow)
- Stabilization of cell membranes.

For a convenient combination supplement for adults and children age 2+, containing all three ingredients (Magnesium, Riboflavin & Feverfew) in clinical amounts, visit MigreLief.com

Note: These vitamin, mineral and herbal ingredients must be taken daily for maximum, long term benefits. There is a build up period from 3 weeks to 3 months. Compliance and consistency is key for long term benefits.

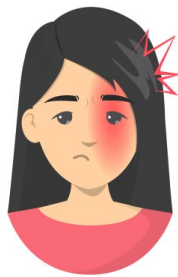
Butterbur extract: (plant) containing petasins is NOT recommended for children because of the increased risk of liver toxicity.

**These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.*

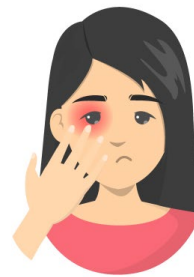
TYPES OF HEADACHE



**TENSION
HEADACHE**



MIGRAINE



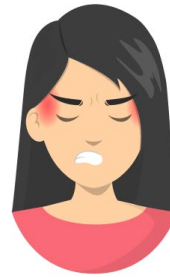
**CLUSTER
HEADACHE**



**SINUS
HEADACHE**



**HYPERTENSION
HEADACHE**



**TMJ
HEADACHE**

Tension headache or migraine?

Tension-type headaches are very common in children. The old name for these was “hat band headache” and that’s often what the pain is like. A child feels pressure around their forehead or entire head, not the throbbing of a migraine. Often they can function, eat, go to school, and even play sports although they don’t feel well. Ibuprofen may help, and relaxation and drinking water may be enough to sooth a tension type headache.

Lots of parents are concerned about screen time triggering headache, and it’s a valid concern. Bright lights and screens definitely can trigger migraines in susceptible children and adults, but staring at a computer, phone, or iPad can trigger a headache for anyone if used for too long.

Encourage limits on screen time, taking breaks, and getting up to stretch when working or playing games.

Tension headaches (as well as migraines) can be stress related so it is important to ask about stress and anxiety when evaluating your child’s headache. Careful questions and discussion with teachers and guidance counselors may help a parent figure out if a headache is actually a way for a child to avoid bullying or a difficult situation at school. This hopefully leads to intervention and resolution of the triggers.



Menstrual Migraines

Puberty may trigger or aggravate migraine headaches in young teens. The prevalence increases in young women during adolescence, may be in part due to the changes of estrogen and progesterone that occur at puberty. Some researcher believe that the very first exposure to estrogen could be the starting point for migraine in some adolescent girls.

Menstrual migraines are fueled by the drop in estrogen levels just prior to menstruation and fluctuations during and after menstruation as well. True “Menstrual Migraines” occur at the time of menstruation. “Menstrually Related Migraines” occur throughout the menstrual cycle. Menstrual migraines are now considered a separate disorder from other types of migraine.

Menstrual migraines that occur only monthly can progress into chronic migraines.

Menstrual migraines are difficult to control. Approximately 1 in 7 adults have migraines, but women are three times more likely to be affected than men and 60% to 70% report a menstrual relationship to their migraine attacks. Menstrual related migraine attacks are often more severe, last significantly longer, and are more resistant to treatment than the usual non-menstrual migraine attacks.

Fluctuating hormones can lead to migraines and cause symptoms of PMS (Premenstrual Syndrome) and PCOS (Polycystic Ovary Syndrome) such as:

PMS Symptoms:

Menstrual migraines
Anxiety
Overeating
Breast Swelling
Weight Gain
Bloating
Irritability & Mood Swings

Abdominal & Pelvic Cramps
Fatigue
Headaches
Depression
Insomnia
Acne
Hives

Nutritional Support for teens (and women) with Hormonal Migraines

Key nutritional supplements have been proven beneficial for migraine sufferers with hormonally related migraines.

In addition MAGNESIUM, RIBOFLAVIN AND FEVERFEW, 5 additional ingredients that have been shown to not only balance blood sugar swings and the hormonal fluctuations that lead to menstrual migraines, but to also significantly decrease PMS and PCOS symptoms.

Riboflavin (Vitamin B-2, 400 mg/day)*

Puracol Feverfew (100 mg/day)*

Magnesium (citrate/oxide, 360mg/day)*

Chasteberry extract (175 mg/day)

L-Theanine (100 mg/day)

D-Biotin (15 mg/day)

Pyridoxine Hydrochloride (vitamin B-6, 100 mg/day)

Chromium Picolinate (1,000 mcg/day)



A combination dietary supplement containing all of the above mentioned ingredients is [MIgreLief+M](#)

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

What to do if your child has a migraine attack

Home treatments include:

- Have your child lie down in a quiet, dark room and relax. (Turn off the lights and close the shades.
- Use a cold or wet compress, (cool wet cloth or ice pack.)
- Give them plenty of fluids as soon as possible, preferably water.
- Use over the counter safe, pain relief or a natural supplement.
- Sometimes massaging the scalp, or back of neck and shoulders can help relieve the pain.
- Avoid scents if your child is sensitive to smells. However, aromatherapy may help for some migraine sufferers. Peppermint, spearmint, lavender and rosemary [essential oil roll-on](#) applied to temples back of neck or inside of wrist may soothe and relax.
- Call your physician if you have any concerns

Goal of Migraine Treatment

Children are candidates for migraine prevention if they have recurring migraines, or migraines that disrupt their life and limit their daily activities such as missing school, and extracurricular activities, interfere with their ability to concentrate and focus, disrupt their sleep or lead to depression or psychological problems. Prevention is also important for kids who experience migraines with neurological symptoms such as temporary vision loss, weakness, confusion or vertigo.

Managing or preventing migraines may require a combination of behavior and lifestyle modification and prescription, OTC (over the counter) and natural/nutritional supplements with the goal being:

1. Reduction of symptoms, headache frequency, severity, duration and disability
2. Reduction of relying on poorly tolerated, drugs and pain medication
3. Improve quality of life
4. Avoid the increased use of pain medication to avoid side-effects and medication overuse headaches (MOH) / rebound headaches (recurring migraines)
5. Reduction of headache/migraine related distress and psychological symptoms



WHEN TO SEE A DOCTOR

Because a headache can have other underlying causes, it is a good idea to take your child to a physician for an accurate diagnosis. Contact your child's doctor if the migraine/headache:

- Wakes your child from sleep
- Worsens or become more frequent
- Changes your child's personality
- Follows an injury, such as a blow to the head
- Causes persistent vomiting or visual changes
- Causes fever and neck pain or stiffness

Questions a physician may ask include:

- What is the time pattern of your headache: sudden first headache, episodes of headache, everyday headache, gradually worsening, or a mixture?
- How and when did the migraine / headache begin?
- How often does the headache occur, and how long
- Where is the pain located
- What other symptoms is your child experiencing



The bottom line... Turning frowns upside down!

Every parent wants to give their children a good start in life. If your child tells you he or she has a headache or stomachache, he or she may be experiencing migraines so take them seriously. Pay attention to the symptoms that come with it, not just the head pain. Note what makes it better or worse. Using a migraine diary can be helpful. Consult your pediatrician to help make the right diagnosis. It may be useful to see a pediatric neurologist. If your child's migraines are ongoing, consider a preventive regimen of dietary, lifestyle and stress management.

Stay positive. There is hope and help. Migraines are the biggest and baddest bullies but with your help, children can outsmart their migraines and get their life back on track. Be supportive, empathetic and remind them that you are there for them. Do your research and network with other parents whose children also get migraines to discover the best treatments, natural alternatives, or therapies and create a regimen that will keep you child smiling.

Life is good again!



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