

Editorial

Migraine in Children and Adults

Mohsin Masud Jan

Editor

Migraine is a common problem worldwide with significant morbidity and economic impact.¹ The direct costs of migraine are directly related to the severity of migraine pain and disability, and rise dramatically with prescription medication usage.^{2,3} The indirect costs exceed the costs of medical care, however, and work-related disability is the most important determinant of the economic impact of migraine.⁴ Migraineurs often miss work (absenteeism) or have reduced productivity at work (presenteeism).

Migraine is a type of headache characterized by recurrent attacks of moderate to severe throbbing and pulsating pain on one side of the head. The pain is caused by the activation of nerve fibers within the wall of brain blood vessels traveling inside the meninges (three layers of membranes protecting the brain and spinal cord).

Headaches are very common in children and teens. In fact, more than half will suffer from headaches at some point, and by 18 years the majority of adolescents have had them. And while most headaches are part of a viral illness, some are migraines. In fact, recurring migraines affect as many as one in 10 children and teens overall.

Migraines sometimes occur even earlier. Before puberty, boys and girls are equally likely to have them. After puberty, migraines are more common in girls.

Migraines are often one-sided in adults. In children they are more likely to be felt on both sides of the head, either in both temples or both sides of the forehead.

While it's not always easy to tell a migraine from another kind of headache, children often report throbbing pain may experience nausea and sensitivity to light and noise.

The flashing lights and other vision changes people often see as a migraine begins are less common in children. However, parents may notice that their child is more tired, irritable, or pale before a migraine begins and takes a while to get back to normal after it ends.

A number of different factors can increase your risk of having a migraine. These factors, which trigger the headache process, vary from person to person and include sudden changes in weather or environment, too much or not enough sleep, strong odors or fumes, emotion, stress, overexertion, loud or sudden noises, motion sickness, low blood sugar, skipped meals, tobacco, depression, anxiety, head trauma, hangover, some medications, hormonal changes and bright or flashing lights.

Epidemiologic data suggest that successful therapy of the most severely affected migraineurs may significantly impact the overall economic burden of migraine.⁵ Migraine therapy employs preventive and symptomatic measures with pharmacologic and non-pharmacologic treatments are often used in both strategies. With careful examination of headache diaries and lifestyle influences, approximately 50-75% of migraineurs are able to identify factors that provoke their headaches.^{6,7} Awareness and avoidance of specific migraine triggers are incorporated into the treatment strategy to decrease the frequency of migraine in a given individual. Triggers for migraine include various foods and beverages, stress or relief of stress, and hormonal factors (such as menstruation and pregnancy).^{6,8,9}

Migraine is divided into four phases, all of which may be present during the attack. First phase is premonitory symptoms occur up to 24 hours prior to developing a migraine. These include food cravings, unexplained mood changes (depression or euphoria), uncontrollable yawning, fluid retention, or increased urination.

Second phase is Aura. Some people will see flashing or bright lights or what looks like heat waves immediately prior to or during the migraine, while others may experience muscle weakness or the sensation of being touched or grabbed.

Third phase is Headache. A migraine usually starts gradually and builds in intensity. It is possible to have migraine without a headache.

Fourth phase is Postdrome. Individuals are often exhausted or confused following a migraine. The postdrome periods may last up to a day before people feel healthy again.

It appears that migraines are caused by the nerves being more sensitive, and more reactive to stimulation. That stimulation could be stress, fatigue, hunger, almost anything. Migraines run in families. In fact, most migraine sufferers have someone in the family who gets migraines too.

The scientific reasons of migraine are those trigger chemicals, such as serotonin to narrow the blood vessels. Serotonin is a chemical necessary for communication between nerve cells. It can cause narrowing the blood vessels throughout the body. When serotonin or estrogen levels change, the result for some is a migraine.

The best way to prevent migraines is to identify and avoid triggers. The triggers are different in each person, which is why it's a good idea to keep a headache diary.

When a child gets a headache, write down what was happening before the headache, how badly it hurt and where, what helped, and anything else about it one can

think of. This helps to see patterns that can help to understand child's particular triggers. It's a good idea to make sure a child gets enough sleep, eats regularly and healthfully, drinks water regularly, gets exercise, and manages stress. Doing this not only helps prevent migraines, but is also good for overall health.

When a migraine strikes, sometimes just lying down in a dark, quiet room with a cool cloth on the forehead is enough. If it's not, ibuprofen or acetaminophen can be helpful. It's important not to give the child these medications more than about 14 days a month, as giving them more often can lead to rebound headaches and make everything worse. If those approaches aren't enough, a class of medications called triptans can be helpful in stopping migraines in children ages 6 and up. If a child experiences frequent or severe migraine, leading to missed days of school or otherwise interfering with life, doctors often use medications to prevent migraines. There are a number of different kinds, and your doctor can advise you on what would be best for your child. Some girls get migraines around the time of their period. If that happens frequently, sometimes taking a prevention medicine around the time of menses each month can be helpful.

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