

Migraine Headache

- Migraine headache is a result of specific changes within the brain. It causes severe head pain that is often accompanied by sensitivity to light, sound, or smells.
- Common symptoms of migraine are:
 - Eye pain
 - Sensitivity to light or sound
 - Nausea
 - Vomiting
 - Severe pain, usually on one side of the head that some individuals describe as "pounding"
- Other types of headaches can also cause severe pain, and not all headaches are migraines. For example, some people describe the pain of cluster headaches as the worst pain they have experienced.
- The exact cause of migraines is not known. Changes in neurotransmitter levels within the brain are thought to play a role.
- Migraines are diagnosed by the typical clinical signs and symptoms.
- A number of factors can trigger migraines to include:
 - hormonal changes,
 - stress,
 - strong stimuli like loud noises, and
 - certain foods.
- Treatment of migraine involves over-the-counter (OTC) or prescription medications.
- Prescription medications used to relieve the pain of migraine include the triptans, for example,
 - sumatriptan (Imitrex, Alsuma, Imitrex STATdose System, Sumavel DosePro, Zecuity, Treximet),
 - rizatriptan (Maxalt, Maxalt-MLT),
- Lifestyle modifications such as diet and exercise may be useful to help migraine sufferers manage the triggers of their condition.
- Avoiding dietary triggers of migraines may be able to help some patients decrease the frequency of attacks.
- Some people find that exercises, such as yoga, that promote muscle relaxation are helpful in pain management.
- Most people with migraines find their condition to be manageable with a combination of medications and lifestyle modifications.
- Preventive medications of a variety of drug classes may be used in some patients to decrease the frequency of migraines.

What is a migraine?

Although many people use the term "migraine" to describe any severe headache, a migraine headache is the result of specific physiologic changes that occur within the brain and lead to the characteristic pain and associated symptoms of a migraine.

Migraine headaches are usually associated with sensitivity to light, sound, and smells. In addition, many patients experience nausea or vomiting. The headache of a migraine often involves only one side of the head but in some cases, patients may experience pain bilaterally or on both sides. The pain of a migraine is often described as throbbing or pounding and it may be made worse with physical exertion.

In some cases, patients with migraines experience specific warning symptoms, or an aura, prior to the onset of their headache. These warning symptoms can range from flashing lights or a blind spot in one eye to numbness or weakness involving one side of the body. The aura may last for several minutes, and then resolves as the head pain begins or may last until the headache resolves. For patients who have never experienced an aura, the symptoms can be frightening and can mimic the symptoms of a stroke.

Not all headaches represent migraines, and migraine is not the only condition that can cause severe and debilitating headaches. For example, cluster headaches are very severe headaches that affect one side of the head in a recurrent manner (occurring in a "cluster" over time). The pain is sometimes described as "drilling," and can be worse than migraine pain in some cases. Cluster headaches are less common than migraine.

Tension headaches are a more common cause of headache. They occur due to contraction of the muscles of the scalp, face, and neck.

What are migraine triggers?

Many factors have been identified as migraine triggers.

- The normal hormone fluctuations which occur with regular menstrual cycles may predispose some women to experience migraine headaches.
- Some types of oral contraceptives (birth control pills) can trigger migraines.
- Various foods such as:
 - Red wines
 - Aged cheeses
 - Preservatives used in smoked meats (nitrites)

- Monosodium glutamate
- Artificial sweeteners
- Chocolate
- Dairy products
- Oversleeping
- Alcohol beverages
- Stress
- Exposure to strong stimuli such as bright lights, loud noises, or strong smells.

Changes in barometric pressure have been described as leading to migraine headaches.

Not every individual who has migraines will experience a headache when exposed to these triggers. If a person is unsure what his or her specific triggers might be, maintaining a headache diary can be beneficial to identify those individual factors which lead to migraine.

What causes migraines?

The specific cause of migraines is not known, but there may be fluctuations in certain neurotransmitters, chemicals that send messages between brain cells. These changes may predispose some people to develop migraine headaches.

What are the risk factors for migraine?

Up to 25% of people experience a migraine headache at some point in their life. Most migraine sufferers are female. It is estimated that after adolescence, the ratio of female to male patients who experience migraines is about 3:1. There seems to be a genetic predisposition to migraine, as there is often a strong family history of migraine in patients with this disorder.

intensity, which is aggravated by physical activity and associated with nausea and/or vomiting as well as photophobia and/or phonophobia (sensitivity to light and sound). A migraine headache typically lasts for several hours up to several days.

Many patients describe their headache as a one-sided, pounding type of pain, with symptoms of nausea and sensitivity to light, sound, or smells (known as photophobia, phonophobia, and osmophobia). In some cases, the discomfort may be bilateral. The pain of a migraine is often graded as moderate to severe in intensity. Physical activity or exertion (walking up stairs, rushing to catch a bus or train) will worsen the symptoms.

Up to one-third of patients with migraines experience an aura, or a specific neurologic symptom, before their headache begins. Frequently, the aura is a visual disturbance described as a temporary blind spot which obscures part of the visual field. Flashing lights in one or both eyes, sometimes surrounding a blind spot, have also been described. Other symptoms, including numbness or weakness along one side, or speech disturbances, occur rarely.

Some people describe their visual symptoms of loss of vision, which lasts for less than an hour, and may or may not be associated with head pain once the vision returns, as an ocular migraine. These symptoms are also known as retinal migraine, and may be associated with symptoms similar to those described as an aura, such as blind spots, complete loss of vision in one eye, or flashing lights. If a patient experiences these symptoms regularly, evaluation to exclude a primary retinal problem is needed.

Eye pain which is different from sensitivity to light is not a common component of migraine. If eye pain is a persistent symptom, or if eye pain is present and accompanied by blurred vision or loss of vision, then prompt evaluation is recommended.

In comparison, a tension headache is described as being bilateral and the pain is not pulsating, but feels like pressure or tightness. While severity can be mild-to-moderate, the headache is not disabling and there is no worsening of the pain with routine physical activity; additionally, there is no associated nausea, vomiting, photophobia, or phonophobia.

No specific physical findings are found when patients are experiencing a routine migraine headache.

If an abnormality is identified on physical examination, there should be suspicion of another cause for the headache.