

# Migraine

## Definition

A migraine is a common type of headache that may occur with symptoms such as nausea, vomiting, or sensitivity to light. In many people, a throbbing pain is felt only on one side of the head.

Some people who get migraines have warning symptoms, called an aura, before the actual headache begins. An aura is a group of symptoms, usually vision disturbances, that serve as a warning sign that a bad headache is coming. Most people, however, do not have such warning signs.

See also:

- Headache
- Mixed tension migraine (features of both a migraine and tension headache)

## Alternative Names

Headache - migraine

## Causes

A lot of people get migraines -- about 11 out of 100. The headaches tend to first appear between the ages of 10 and 46. Occasionally, migraines may occur later in life in a person with no history of such headaches. Migraines occur more often in women than men, and may run in families. Women may have fewer migraines when they are pregnant. Most women with such headaches have fewer attacks during the last two trimesters of pregnancy.

A migraine is caused by abnormal brain activity, which is triggered by stress, certain foods, environmental factors, or something else. However, the exact chain of events remains unclear.

Scientists used to believe that migraines were due to changes in blood vessels within the brain. Today, most medical experts believe the attack actually begins in the brain itself, where it involves various nerve pathways and chemicals. The changes affect blood flow in the brain and surrounding tissues.

Migraine attacks may be triggered by:

- Alcohol
- Allergic reactions
- Bright lights
- Certain odors or perfumes

- Changes in hormone levels (which can occur during a woman's menstrual cycle or with the use of birth control pills)
- Changes in sleep patterns
- Exercise
- Loud noises
- Missed meals
- Physical or emotional stress
- Smoking or exposure to smoke

Certain foods and preservatives in foods may trigger migraines in some people. Food-related triggers may include:

- Any processed, fermented, pickled, or marinated foods
- Baked goods
- Chocolate
- Dairy products
- Foods containing monosodium glutamate (MSG)
- Foods containing tyramine, which includes red wine, aged cheese, smoked fish, chicken livers, figs, and certain beans
- Fruits (avocado, banana, citrus fruit)
- Meats containing nitrates (bacon, hot dogs, salami, cured meats)
- Nuts
- Onions
- Peanut butter

This list may not be all-inclusive.

True migraine headaches are not a result of a brain tumor or other serious medical problem. However, only an experienced health care provider can determine whether your symptoms are due to a migraine or another condition.

## **Symptoms**

Vision disturbances, or aura, are considered a "warning sign" that a migraine is coming. The aura occurs in both eyes and may involve any or all of the following:

- A temporary blind spot
- Blurred vision
- Eye pain
- Seeing stars or zigzag lines
- Tunnel vision

Not every person with migraines has an aura. Those who do usually develop one about 10 - 15 minutes before the headache. However, it may occur just a few minutes to 24 hours beforehand.

Migraine headaches can be dull or severe. The pain may be felt behind the eye or in the back of the head and neck. For many patients, the headaches start on the same side each time. The headaches usually:

- Feel throbbing, pounding, or pulsating
- Are worse on one side of the head
- Start as a dull ache and get worse within minutes to hours
- Last 6 to 48 hours

Other symptoms that may occur with the headache include:

- Chills
- Increased urination
- Fatigue
- Loss of appetite
- Nausea and vomiting
- Numbness, tingling, or weakness
- Problems concentrating, trouble finding words
- Sensitivity to light or sound
- Sweating

Symptoms that may linger even after the migraine has gone away include:

- Feeling mentally dull, like your thinking is not clear or sharp
- Increased need for sleep
- Neck pain

## **Exams and Tests**

Your doctor can diagnose this type of headache by asking questions about your symptoms and family history of migraines, and by monitoring how you respond to treatment. A complete physical exam will be done to make sure that your headaches are not due to muscle tension, sinus problems, or a more serious underlying brain disorder.

Tests are usually not needed if you have typical signs and symptoms of migraines. However, your doctor may order a brain MRI or CT scan to rule out other causes.

If you have a migraine with unusual symptoms such as weakness, memory problems, or loss of alertness, an EEG may be needed to rule out seizures. Rarely, a lumbar puncture (spinal tap) might be done.

## **Treatment**

There is no specific cure for migraine headaches. The goal is to prevent symptoms by avoiding or changing your triggers.

A good way to identify triggers is to keep a headache diary. Write down:

- When your headaches occur
- How severe they are
- What you've eaten
- How much sleep you had
- Other symptoms
- Other possible factors (women should note where they are in their menstrual cycle)

For example, the diary may reveal that your headaches tend to occur more often on days when you wake up earlier than usual. Changing your sleep schedule may result in fewer migraine attacks.

When you do get migraine symptoms, try to treat them right away. The headache may be less severe. When migraine symptoms begin:

- Drink water to avoid dehydration, especially if you have vomited
- Rest in a quiet, darkened room
- Place a cool cloth on your head

Many different medications are available for people with migraines. Medicines are used to:

- Reduce the number of attacks
- Stop the migraine once early symptoms occur
- Treat the pain and other symptoms

## REDUCING ATTACKS

If you have frequent migraines, your doctor may prescribe medicine to reduce the number of attacks. Such medicine needs to be taken every day in order to be effective. Such medications may include:

- Antidepressants such as amitriptyline
- Blood pressure medicines such as beta blockers (propranolol) or calcium channel blockers (verapamil)
- Seizure medication such as valproic acid and topiramate
- Serotonin reuptake inhibitors (SSRIs) such as venlafaxine

## STOPPING AN ATTACK

Other medicines are taken at the first sign of a migraine attack. Over-the-counter pain medications such as acetaminophen, ibuprofen, or aspirin are often helpful, especially when your migraine is mild. (Be aware, however, that overuse or misuse of such pain medications may result in rebound headaches.) If these don't help, ask your doctor about prescription medications.

Your doctor can select from several different types of medications, including:

- Triptans -- the most frequently prescribed medicines for stopping migraine attacks -- such as almotriptan (Axert), frovatriptan (Frova), rizatriptan (Maxalt), sumatriptan (Imitrex), and zolmitriptan (Zomig)
- Ergots such as dihydroergotamine or ergotamine with caffeine (Cafergot)
- Isometheptene (Midrin)

These medications come in different forms. Patients who have nausea and vomiting with their migraines may be prescribed a nasal spray or injection instead of pills.

Some migraine medicines narrow your blood vessels and should not be used if you are at risk for heart attacks or have heart disease, unless otherwise instructed by your health care provider. Ergots should not be taken if you are pregnant or planning to become pregnant, because they can cause serious side effects to an unborn baby.

## TREATING SYMPTOMS

Other medications are primarily given to treat the symptoms of migraine. Used alone or in combinations, these drugs can reduce your pain, nausea, or emotional distress. Medications in this group include:

- Nausea medicines such as prochlorperazine
- Over-the-counter pain relievers such as acetaminophen (Tylenol)
- Sedatives such as butalbital
- Narcotic pain relievers such as meperidine
- Nonsteroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen

If you wish to consider an alternative, feverfew is a popular herb for migraines. Several studies, but not all, support using feverfew for treating migraines. If you are interested in trying feverfew, make sure your doctor approves. Also, know that herbal remedies sold in drugstores and health food stores are not regulated. Work with a trained herbalist when selecting herbs.

## Support Groups

American Council for Headache Education - [www.achenet.org](http://www.achenet.org)

The National Migraine Association - [www.migraines.org](http://www.migraines.org)

National Headache Foundation - [www.headaches.org](http://www.headaches.org)

## Outlook (Prognosis)

Every person responds differently to treatment. Some people have rare headaches that require little to no treatment. Others require the use of several medications or even occasional hospitalization.

## Possible Complications

Migraine headaches generally represent no significant threat to your overall health. However, they can be a long-term (chronic) problem and may interfere with your day-to-day life.

## When to Contact a Medical Professional

Call 911 if:

- You are experiencing "the worst headache of your life"
- You have speech, vision, or movement problems or loss of balance, especially if you have not had these symptoms with a migraine before
- Your headaches are more severe when lying down
- The headache starts very suddenly

Such headaches may be the result of stroke, bleeding in the brain, aneurysm, or other serious condition and require the immediate attention of a health care provider.

Depending on the history of the headache, a CT scan or MRI may be done to rule out any of the above conditions.

Also, call your doctor if:

- Your headache patterns or pain change
- Treatments that once worked are no longer helpful
- You have side effects from medication, including irregular heartbeat, pale or blue skin, extreme sleepiness, persistent cough, depression, fatigue, nausea, vomiting, diarrhea, constipation, stomach pain, cramps, dry mouth, or extreme thirst
- You are pregnant or could become pregnant -- some medications should not be taken when pregnant

## Prevention

Understanding your headache triggers can help you avoid foods and situations that cause your migraines. Keep a headache diary to help identify the source or trigger of your symptoms. Then modify your environment or habits to avoid future headaches.

Other tips for preventing migraines include:

- Avoid smoking
- Avoid alcohol
- Avoid artificial sweeteners and other known food-related triggers
- Get regular exercise
- Get plenty of sleep each night
- Learn to relax and reduce stress -- some patients have found that biofeedback and self-hypnosis helps reduce the number of migraine attacks