

# Migraine Headache

**M**igraine is a recurrent headache disorder with intense pain that may be **unilateral** (one-sided) and accompanied by nausea or vomiting as well as **photosensitivity** (sensitivity to light) and **phonosensitivity** (sensitivity to sound). The lifetime prevalence is 25% in women and 8% in men. Migraine also affects about 5% to 10% of children and adolescents. Some people who have migraine headaches experience an **aura** (temporary disturbance of the senses or muscles) in the minutes before the onset of pain. The aura may consist of seeing flashing lights, having numbness or tingling in the face or extremities, having a disturbed sense of smell, or having difficulty speaking. However, only about one-third of individuals who have migraine headaches experience auras. Migraines are painful but fortunately are not life-threatening. The June 24, 2009, issue of *JAMA* includes an article about migraine headache.

## CAUSES

The exact cause of migraine headaches is unknown. Current research suggests that inflammation in the blood vessels of the brain causes them to swell and press on nearby nerves, causing pain. This inflammation may arise in or be stimulated by signals from the **trigeminal nerve** (the main sensory nerve of the face).

Many individuals with migraine headaches can identify **triggers** that cause or aggravate the headache. Because there is no cure, avoiding triggers may help to reduce the frequency or severity of migraine headaches. Some triggers include

- Stress and anxiety
- Changes in the weather
- Caffeine (too much or too little), chocolate, or alcohol (often red wine)
- Lack of sleep or too much sleep
- Hormonal changes during the menstrual cycle
- Skipped meals
- Certain foods that contain nitrates (such as luncheon meats, hot dogs), tyramine (such as aged cheeses, smoked fish), monosodium glutamate (MSG), or aspartame

## DIAGNOSIS

The medical history and physical examination are the most important. Your physician will need to know about all of the medications you are taking, including over-the-counter medicines. Discuss with your physician if you need to take pain medication more than 3 days a week or more than 10 days in a month since you may be experiencing **rebound** (a cycle of headache pain that recurs when each dose of medication wears off). Rarely, imaging studies are used to make certain that your headaches are not caused by a problem other than migraines.

Sources: National Institute of Neurological Diseases, National Institutes of Health

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## TREATMENT

There are 2 medication strategies used to treat migraine headaches. Treating the pain at the onset offers the best relief.

- Over-the-counter **analgesics** (pain relievers) such as aspirin, acetaminophen, or **nonsteroidal anti-inflammatory drugs** (NSAIDs) such as ibuprofen
- Prescription drugs called **triptans** are used for headaches not relieved by over-the-counter medications. These are generally not used for people who have high blood pressure or heart disease.

For those whose headaches are not adequately relieved with these medications, the second medication strategy involves medications prescribed **prophylactically** (taken everyday for prevention). These medications are normally prescribed to treat other disorders but have been successful at reducing the frequency or severity of migraine headaches.

- Blood pressure medications such as beta blockers or calcium channel blockers
- Antidepressant medications such as amitriptyline or venlafaxine
- Anticonvulsant medications such as divalproex or topiramate

## FOR MORE INFORMATION

- National Institute of Neurological Diseases  
[www.ninds.nih.gov/disorders/headache/detail\\_headache.htm](http://www.ninds.nih.gov/disorders/headache/detail_headache.htm)
- US Department of Health and Human Services  
Office of Women's Health  
[www.womenshealth.gov/faq/migraine.pdf](http://www.womenshealth.gov/faq/migraine.pdf)

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