



## NATIONAL HEADACHE FOUNDATION

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### MIGRAINE

More than 28 million Americans suffer from migraine, striking three times more women than men. This vascular headache is most commonly experienced between the ages of 15 and 55, and 70% to 80% of sufferers have a family history of migraine.

Many factors can trigger migraine attacks such as alteration of sleep-wake cycle; missing or delaying a meal; medications that cause a swelling of the blood vessels; daily or near daily use of medications designed for relieving headache attacks; bright lights, sunlight, fluorescent lights, TV and movie viewing; certain foods; and excessive noise. Stress and/or underlying depression are important trigger factors that can be diagnosed and treated adequately.

Migraine characteristics include:

- Pain typically on one side of the head
- Pain has a pulsating or throbbing quality
- Moderate to intense pain affecting daily activities
- Nausea or vomiting
- Sensitivity to light and sound
- Attacks last four to 72 hours, sometimes longer
- Visual disturbances or aura
- Exertion such as climbing stairs makes headache worse

Approximately one-fifth of migraine sufferers experience aura, the warning associated with migraine, prior to the headache pain. Visual disturbances such as wavy lines, dots or flashing lights and blind spots as well as disruptions in smell, taste or touch begin from twenty minutes to one hour before the actual onset of migraine. The origin of aura is not well understood. It has been thought to be due to constriction of small arterioles supplying specific areas of the brain. Others believe it to be due to transient changes in the activity of specific nerve cells.

The headache of migraine may have several different factors at play. These include alterations in platelet adhesiveness and release of serotonin, shifting of blood flow from the arteries to the veins through vessels known as "anastomoses" which direct blood flow away from the nutrient capillaries and changes in the function of the nerves of the trigeminal nerve centers and fibers in the brain and on the blood vessels causing local chemical changes that may play a role in producing the pain of migraine as well as the non infective inflammation which may surround and involve the vessels of the brain during an attack.

Diagnosis of migraine headache is made by establishing the history of the migraine related symptoms and other headache characteristics as well as a family history of similar headaches. By definition in between the attacks of migraine the physical examination of a patient with migraine headache does not reveal any organic causes for the headaches. Tests such as the CT scan and MRI are useful to confirm the lack of organic causes for the headaches.

#### Treatment

Many factors may contribute to the occurrence of migraine attacks. These factors are known as trigger factors and may include diet, sleep, activity, psychological issues as well as many other factors. The use of a diary to record events that may play a role in causing the headaches can be useful for you and your doctor. Avoidance of identifiable trigger factors reduce the number of headaches a patient may experience. Healthful lifestyles including regular exercise and avoidance of nicotine may also enhance migraine management. Non-pharmacological techniques for control of migraine are helpful to some patients. These include biofeedback, physical medicine, and counseling. These as with most elements of migraine need to be individualized to the patient.

#### Abortive

Ergotamine preparations are available for oral, rectal or sublingual administration, and Dihydroergotamine (DHE) may be used for self-injection. A four-day hiatus between days of use must be maintained for the ergotamine preparations