

# CNMRI<sub>, PA</sub>

## **Migraine**

About 24 million people suffer from migraines in the United States. Migraine is most prevalent in people between 25 and 55 and is less common after middle age. Women sufferers outnumber men 3 to 1. No one knows exactly what causes migraine. Body chemistry, hormones and environment all may have an effect but the exact cause (or combination of causes) has yet to be identified. Scientists are currently looking at genetics as a factor in some forms of migraine. As evidence that heredity does play an important role, note that 70% to 80% of sufferers have a family history of the disease. Migraine may be a response to triggers such as certain foods, hormones, or environmental factors that cause blood vessels in the brain to overreact, which may lead to a migraine.

### **What is a migraine?**

A migraine is a periodic throbbing headache, usually on one side of the head, but may also be located behind the eyes, at the temples or over the back of the head. Migraine headaches may range from mild to severe in intensity and may be accompanied by other symptomatology. Migraine headaches may last from several hours to several days. A person may awaken with a headache, which may worsen throughout the day. Physical activity may worsen the pain and sleeping often relieves it. In many cases, the headache is severe enough to keep the person from performing his or her regular activities.

### **What symptoms are associated with migraine headache?**

About one out of five people, who have migraines, also have aura prior to the headache. If you have an aura, you may see flashing lights, temporarily lose your sight or go numb on one side of your body. Aura may last 5 to 30 minutes. The aura of migraine is most commonly visual and precedes the migraine attack from 20 to 60 minutes. Occasionally, the migraine aura will persist into the headache phase of migraine or may even start once the headache has begun. Several major forms of visual phenomena can occur as migraine related auras. Photopsia is the occurrence of bright flashes of light in the visual field, similar to the effect that occurs when an old-fashioned camera flash bulb would light. Fortification spectra or teichopsia is the bright, shimmering, jagged lines that can spread across the visual field. The name fortification spectra comes from the visual appearance that resembles the battlements or walls of archaic fortresses. Metamorphopsia is the distortion of visual images in their size, shape and color. This has been termed the "Alice in Wonderland Syndrome" as named after the events described in Lewis Carroll's book *Through the Looking Glass*, and as portrayed in original woodcuts by John Tenniel. Other visual effects may include the occurrence of scotoma or partial loss of vision, ranging from black spots in the field of vision or "tunnel" vision effects. Amaurosis Fugax, which appears as a loss of vision coming from the top down, as if a shade were being drawn, can

also occur. People may experience nausea, vomiting, light and noise sensitivity, fatigue, lightheadedness, difficulties with speech, numbness or tingling or vision changes (flashing lights, zigzag lines, shimmering lights, blurred vision, blind spots) with the headaches.

### **What causes migraine?**

The cause of migraine is unknown. One theory suggests that the nervous system is reacting to sudden changes in the body or the environment. During a migraine attack, changes in brain activity may cause blood vessels and nerves around the brain to become inflamed. Serotonin, a chemical in the brain, causes the blood vessels to become narrower and this may affect a person's sensitivity to pain. Studies of people with migraine headaches have shown that these people often have low levels of serotonin in the brain, which may cause blood vessels in the brain to widen abnormally.

### **What can trigger a migraine?**

Triggers for migraine include weather or temperature changes, glaring or fluorescent lights, computer screens, strong odors, hormonal changes, too much or too little sleep, missed meals, certain foods (chocolate, peanuts, peanut butter, citrus fruit, alcohol, aged cheeses, processed meats, yeast, foods which contain Tyramine etc.) increased stress, physical factors (overexertion such as bending) or excessive amounts of medications. Weather changes can cause biological changes in the body's chemical balance and thus precipitate a migraine headache in some sensitive people. Weather conditions also can increase the severity of a headache induced by other factors. Extreme cold as well as very humid weather conditions have been known to trigger migraine headaches. A very dry and dusty atmosphere also can precipitate a migraine. When too many electrically charged dust particles are inhaled, it is thought that certain vasoactive chemicals are released, thus triggering a headache. These particles also may provoke the migraine associated with certain winds and storms or with crowding in a stuffy room. A change in barometric pressure can trigger a migraine headache. Many migraine sufferers are very sensitive to light, especially to glare. Bright lights are more likely to trigger migraine headaches when they are of a "flickering" quality, and a slow flicker is usually more irritating than a more rapid one. It is believed that some people have more excitable brain cells in response to light than others. A dazzling, flicker type of light can be found in light reflected on snow, sand, or water, or through clouds. Some fluorescent lighting or the light that flickers from television and movie screens may have a similar effect. The use of Polaroid lenses in these glaring conditions can be helpful. Many physical factors also can trigger migraine headache including overexertion such as bending, straining or lifting, high blood pressure, toothache or localized neck pains.

### **What are analgesic rebound headaches?**

Analgesic agents are drugs used to control pain. These may be prescription or over-the-counter medications. If used on a daily or almost daily basis, these analgesics will actually perpetuate the headache process. When used in this manner, these pills may decrease the intensity of the pain for a few hours. However, the analgesics appear to feed into the pain system in such a way that chronic headaches may result. If under these circumstances the patient does not completely stop these pills, despite any other treatment undertaken, the chronic headache is likely to continue unabated. When the analgesics are discontinued, the headache may get worse for several days. The headaches will gradually improve and respond to appropriate medication. Some analgesics which may cause rebound headaches are: acetaminophen, aspirin, ibuprofen codeine, butalbital, hydrocodone, oxycodone, Darvocet n-100®, Fioricet®, Fiorinal®, Percocet®, Vicodin®, Tylenol®, Excedrine®, Motrin®.

### **How is migraine treated?**

While there is no cure, migraine is treatable with your help and proper medical care. Your treatment plan can reduce the effect that migraine has on your life by identifying and controlling triggers that start a migraine. Making healthy behavior and lifestyle changes may also improve your headaches. Utilizing medications to prevent and treat migraines may also be part of your plan. A headache diary is a valuable tool to help identify your migraine triggers, track how well your medications are working and monitor the benefits of treatment and lifestyle changes. We encourage all patients to access information and learn more about their illness. You are invited to browse our Website at <http://cnmri.com>

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