



Migraines: Your Doctor Can Help

All of us, at some time or another, probably have experienced a headache. In fact more than half of the American population gets a headache at least once a month. Although no life threatening, a headache can spoil your day or ruin your evening plans. But some people suffer from more than just an occasional headache. Fifteen percent of Americans have a headache at least once a week; five percent suffer in pain every day. These individuals have recurring headache, a condition that frequently disrupts everyday activities. Although several types of headaches have been identified, this booklet will present information on one type known as a migraine. Migraines affect at least 16 million adult women, eight million adult men, and nearly two million children in the U.S.

What is a Migraine?

A migraine is a condition that involves several symptoms; although headache is the most common one (rarely, some persons do suffer from migraine without developing a headache), other symptoms may include nausea, vomiting, increased sensitivity to light and noise, diarrhea, sweating, and paleness. As you'll learn momentarily, the specific symptoms that occur, as well as their intensity, depend upon the type of migraine. Symptoms also vary from one person to another; stomach upset, for example may be a prominent feature in some sufferers, while others do not experience this symptom at all.

In most migraine sufferers, once the headache begins, the pain is limited to one side of the head, often the temple. The pain typically starts as a dull ache, but soon progresses into a pulsating throb. The agony may persist for a few hours or for several days.

Although emotional stress may provoke this condition, migraine is a physical, not a mental, disorder. Unfortunately, because migraine is often perceived as a nuisance rather than a real physical condition, migraine sufferers often get little emotional support from family and friends. Actually, though the pain of a migraine attack is just as real as the seizure of the epileptic or the abnormally high amount of sugar in the blood of the untreated diabetic. Fortunately, in many cases, persons who suffer from headache can be helped. Your doctor can often tell you what your headaches are due to and can help relieve much of the pain and discomfort that typically accompany this condition.

Types of Migraines:

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Medical providers traditionally classify migraines into one of two major categories: classic and common.

The Classic Migraine

Classic Migraines occur far less often than the common migraine variety, accounting for only one out of every 10 migraine cases. Classic migraine sufferers experience certain neurological symptoms, called auras, which typically precede the headache. These symptoms include visual disturbances, such as flashing dots, zigzag lines, or floating visual images. The feeling of pins and needles starting in the fingers of one hand and gradually moving up the arm and eventually affecting the face is another typical aura of this condition. Although auras usually the face is another typical aura of this condition. Although auras usually serve as an advanced warning of the oncoming attack, they may develop after the headache has begun or even after it is over. Auras usually last for about 20 minutes.

The Common Migraine

Most migraine sufferers do not experience auras. Instead, these individuals get a headache without any well-defined auras; generally, gastrointestinal symptoms such as nausea, vomiting, and diarrhea tend to strike common migraine sufferers more frequently than in individuals with classic migraines. Perhaps this is why the common migraine is also known as a “sick headache.”

Certain symptoms occur in both types of migraine, but vary greatly from one person to another. Some individuals may experience a great surge of energy before the actual headache “hits,” while others feel fatigue and yawn frequently. Some migraines sufferers may have an increased appetite, particularly with a craving for sweet foods, while even the thought of food makes others feel ill. These symptoms may occur as much as two days before the headache begins.

What Causes Migraines?

The exact cause of migraines is unknown. Traditionally, expert theorized that changes in the size of blood vessels, many physicians today theorize that a disturbance in the brain is responsible. Serving as a “master switchboard,” the brain receives signals, both electrical and chemical, from the entire body, and sends out appropriate responses. The brain also regulates all functions of the body, including the perception of pain. Scientists speculate that disturbances in the electrical and chemical mechanisms of the brain could alter

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various body functions, such as the size of blood vessels, and could set off various functions such as the size of blood vessels in the head are related to the cause of migraine. These vessels, for some unknown reason, first contract inappropriately in response to certain stimuli, or “triggers,” which you’ll learn about later. After the blood vessels contract, scientists speculate that the vessels expand abnormally. This expansion stretches the walls of arteries, which are surrounded by stretch-sensitive nerves in the scalp, resulting in pain. Activities that accentuate in the stretching of these vessels, such as physical exertion, bending over, or coughing, increase the throbbing characteristic of the headache.

Although we still don’t know what causes these changes in blood vessels, many physicians today theorize that a disturbance in the brain is responsible. Serving as a “master switchboard,” the brain receives signals, both electrical and chemical, from the entire body, and sends out appropriate responses. The brain also regulates all functions of the body, including the perception of pain. Scientists speculate that disturbances in the electrical and chemical mechanisms of the brain could alter various body functions such as the size of the blood vessels, and could set off various conditions such as a headache.

It is important to note that headache can be caused by taking certain medications. That is why when you see your doctor, it is extremely important that you inform him of all the medications you are currently taking, both prescription and over-the-counter. Your doctor will be able to rule out whether one of these medications, or a particular combination of medication, is actually causing your headache.

Some migraine sufferers imagine the worst; they think that their condition is a life-threatening situation, such as a brain tumor. Although this is rarely the case, only your doctor can be sure. He or she can rule out the possibility that your headache is caused by a serious health problem, such as meningitis (an inflammation of the membrane that surrounds the brain and spinal cord), high blood pressure, leakage of blood in the head, or brain tumor. Again, these conditions rarely are the source of most headaches, but your doctor will ensure that you are not one of the rare cases.

Are Migraines Inherited?

Heredity has been shown to play an important role in the development of a migraine, but it is only part of the puzzle. Two thirds of migraine sufferers come from families in which other family members experience similar painful attacks. Some evidence indicates that if one parent is a migraine sufferer, the child has nearly a 50 percent chance of becoming a

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migraine sufferer as well. This figure jumps to 70 percent when both parents experience such attacks. On the other hand, migraines strike only 10 to 20 percent of children in whom neither parent is affected. This genetic pattern suggests that certain individuals are more susceptible to migraines than others. Although inheritance clearly plays a role in the development of migraines, other factors (i.e. environmental ones) are important as well.

Who Is Typically Affected By Migraines?

As mentioned earlier, persons with a genetic predisposition to migraines are most often affected by this condition. In this group of adults, about two out of every three migraine sufferers are women. In children, however, migraines are just as common in boys as in girls. In children, nausea, vomiting, abdominal pain, mood disturbances, and a desire to sleep usually accompany migraines. Furthermore, motion sickness and cyclic vomiting in young children may herald migraines in adulthood.

Triggers of Migraines:

Although the exact cause of migraines is not known, researchers have found that certain influences, or triggers, can lead to a migraine attack. These triggers can be environmental, dietary, hormonal, emotional, or a combination of these or other factors.

Environmental

Environmental triggers include bright light, changes in the weather, temperature (i.e. exposure to heat or cold), noise, or motion. Eyestrain may lead to an attack (if you wear prescription glasses or lenses, have them checked periodically). Many migraine sufferers have noticed that glare, such as the sunlight reflected off of water or snow, may set off an attack. If you are sensitive to bright light, wear sunglasses. Since indoor glare may also trigger a headache, arrange your desk, or work station, to minimize glare. Some people are allergic to certain triggers, such as dust or molds, which can lead to a migraine attack. Others find that certain odors, such as cigarette smoke or traffic exhaust fumes, initiate an attack. In others, physical factors, such as a fall, a blow to the head, or physical exertion may be triggers.

Dietary

About 10 percent of migraine sufferers are susceptible to certain food triggers. Although sensitivities to food and beverages vary from one migraine sufferer to another, some

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common foods that can trigger an attack are alcohol (especially red wine, beer, and champagne), aged cheese, and chocolates. Foods that contain monosodium glutamate, or MSG, a food additive used to enhance the flavor of many foods (i.e. Chinese food, dry soup mixes, prepared meats, sauces, dry roasted nuts, and others), are common triggers. So are foods that contain nitrites (i.e. hot dogs, bacon, cured meats, and others), a chemical added to several foods to preserve shelf life.

Hormonal

Changes in hormonal levels seem to play a major role in the development of a migraine, which often begin around the time of puberty, when the levels of various hormones start fluctuating. Women with migraines often report more attacks just before or during menstruation, when the amount of the female sex hormone, estrogen, drops.

Pregnancy is also a time of fluctuating hormone levels. During the first trimester, when estrogen levels are high, migraine sufferers tend to find that their headaches worsen. During the second and third trimesters, however, when the estrogen levels have stabilized (and the levels of another hormone called progesterone are high), approximately 70 percent of common migraine sufferers enjoy a reprieve from their headaches, often with prompt return of the attacks soon after delivery. Oral contraceptives generally increase the frequency and intensity of migraine attacks, most likely because these drugs contain estrogen. If you are taking an oral contraceptive, low-dose estrogen formulations are preferable to the higher dose forms.

Emotional

Although stress can be a positive motivator, inappropriate stress can produce negative consequences, including the provocation of migraines. Worrying, which often goes hand-in-hand with stress, has been linked to migraines. Although individuals vary greatly in the way they handle stress, researchers have noticed that persons who respond excessively to stressful situations are more likely to be affected. In addition, intense stress, particularly when feelings of anger and resentment are involved, the “letdown” period, that occurs after the stress has passed. This observation is consistent with the reports of several migraine sufferers who claim that their attacks often occur on weekends and vacation.

Medications

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Various medications can cause migraines in a susceptible person. One drug, nitroglycerin, a medication that belongs to a family of drugs known as nitrates, is prescribed to relieve the pain of angina (chest pain caused by an insufficient amount of oxygen being delivered to the heart muscle). If possible, it is best to use another drug to control angina in individuals who also suffer from migraines. Other drugs that are capable of producing or aggravating migraines are certain anti-hypertensive drugs (medications used to reduce high blood pressure), oral contraceptives, and certain drugs that dilate the blood vessels. Never stop taking a drug on your own; discuss your individual situation with your doctor.

Lifestyle Habits

Certain lifestyle habits may also play an important role in the occurrence of migraines. Eating in a tensed, rushed manner or skipping meals could set off an attack. Sleep habits are also important: not enough sleep or oversleeping may precipitate migraines.

It is important to note that although a single trigger may, occasionally, provoke a migraine, a combination of factors much more often is needed to set off an attack. For example, some women have noticed that ordinarily, drinking one glass of white wine does not trigger an attack, but during menstruation the white wine does provoke a migraine attack. In any case, you should work with your doctor to identify some of the triggers of your migraine; as a result, you may be able to drastically reduce the intensity and the number of times migraines strike, or even eliminate their occurrence altogether.

Treatment of Migraines:

Two approaches are used to control migraines. One is known as reversal (or abortive) therapy, which is used to block a migraine at the first sign that attack is about to erupt or to reverse the condition once it has already started. Medications, taken early during the course of a migraine, are typically used to reverse this condition. The other approach is preventive therapy. As its name implies, the goal of this approach is to prevent migraines from starting. Preventive therapy is selected when medications used to reverse migraines are ineffective or cannot be used. The preventive approach may involve non-drug therapy or the use of medications.

Your doctor may recommend preventive therapy if you suffer from migraines rather often, such as more than once a week. Reversal therapy is generally selected for attacks that occur less often, such as once a week, or less frequently. Of course, these are only

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general guidelines. Your doctor will consider several factors before choosing a treatment program designed specifically for you.

Reversal Therapy for Migraines

Your doctor can prescribe a medication to calm a migraine attack before it strikes with full force. Your medication is intended to help alleviate the pain and to shorten the duration of the attack soon after it has begun.

One group of pain-relieving medications used to treat migraine is the non-steroidal anti-inflammatory drugs. These include naproxen, meclufenamate, ibuprofen, indomethacin, and others. Although some migraine sufferers may benefit from these drugs or from other analgesics, such as acetaminophen or aspirin, these medications often cannot control the pain of a migraine attack. In such cases, your doctor may prescribe a medication that contains ergotamine, a substance that is often effective in reversing migraines, particularly when taken at the first hint of an ensuing attack. Many physicians consider ergotamine to be the drug of choice in reversal treatment of moderate to severe migraines. Another useful medication, although less potent than ergotamine, is a compound that contains isometheptene mucate (a medication that constricts blood vessels), combined with dichloralphenazone (a sedative) and acetaminophen.

Regardless of medication, it is important to take oral medications (drugs taken by mouth) early in the course of an attack. Once a migraine has begun, your body undergoes certain physical and chemical changes. One of these changes involves your stomach. When a migraine strikes, your stomach empties its contents into the small intestine more slowly than when you're feeling fine. The small intestine is the site where most drugs are absorbed into the bloodstream, a required process for the drug to work. This delay in the stomach's emptying is a phenomenon known as "delayed gastric emptying" (gastric refers to the stomach). As a result, your oral anti-migraine medication will stay in your stomach longer and its effect is delayed. Therefore, take your medication early during the course of a migraine attack.

Your doctor may prescribe a second medication that can enhance the effectiveness of your anti-migraine medication and may help relieve nausea and vomiting should these symptoms occur. One drug in particular, metoclopramide, tends to relieve nausea and enhance emptying of the stomach's contents into the small intestine.

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Rather than taking an oral anti-migraine drug, your doctor may prescribe the drug as a suppository, a specially prepared form of the medication made to be inserted into the rectum. Generally, more of the active drug in a suppository form is absorbed into the blood compared with the same drug taken orally. A suppository is especially recommended if you are vomiting and the migraine is already well under way.

Some persons experience an especially intense migraine that does not respond to the traditional medications. For some, the attack is not only excruciatingly painful but it lasts for an abnormally long time, sometimes for several weeks. These individuals often seek relief by visiting the emergency room of a local hospital. In such cases, a medication called dihydroergotamine has been shown to be very useful in alleviating the headache. Use of narcotics (powerful pain-relieving drugs related to morphine) are sometimes required in these severe cases.

For some individuals, more aggressive treatment is necessary. Headache clinics, staffed by doctors and other healthcare professionals who have had specialized training in the treatment of headaches, are available that offer another option to persons who suffer from stubborn, intractable headaches. Some of these specialty centers also have special hospital programs for patients whose condition is especially difficult to treat or who have complications; other physicians treat individuals only on an outpatient basis.

What to do when a migraine strikes:

When a migraine strikes, in addition to taking your medication to reverse an attack, try to take action that will help you feel better. For example, go to a quiet, dark room and rest. Preferably, lie down, with your head slightly elevated, and go to sleep. Cold compresses applied to your head may help relieve the pain.

Preventive Therapy for Migraines

As mentioned, some persons may experience migraine attacks more than once a week; others may suffer from headaches less frequently, but reversal therapy has not helped them or cannot be used for various medical reasons. For these individuals, preventive therapy may help bring them relief.

Non-drug Approaches:

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Simple everyday behaviors can be learned to help prevent migraine attacks. Since most migraine sufferers seem to fare better when they establish a regular pattern for lifestyle activities, try to:

- *Eat at regular intervals
- *Avoid missed or tardy meals
- *Establish regular working, sleeping, and leisure hours
- *Stop smoking

A key point in preventing migraines is a sincere attempt to uncover your triggers. Once you know which triggers, or combination of triggers, are likely to set off your migraine, and under which circumstances, you can take steps to avoid or correct them. If emotional stress, for instance, is to blame, relaxation techniques, stress-management training, and biofeedback may be helpful. Some persons find that anticipation and rehearsing high-stress situations, before they occur, are useful techniques in helping them cope more effectively with personal problems and in preventing migraines.

Keeping a headache diary can help you identify your triggers. Whenever you have a headache, write down the date and time the headache began. Try to recall what you were doing just before the onset of the headache. Did your headache occur after a sunny day at the beach, or after a movie? What did you eat during the last 12 hours prior to the onset of the headache? Did you sleep more (or fewer) hours the 4night before your migraine? The more information you can provide to your doctor, the greater the likelihood of successfully preventing future attacks.

Medications Used to Prevent Migraines

Various medications are available for the prevention of migraines. These medications typically must be taken daily for a certain period of time. Your doctor can discuss with you whether you are a suitable candidate for preventive drug therapy. One widely used “family” of drugs is known as the beta-blockers: a common one is propranolol, although several other beta-blockers can also be used to prevent migraines. Another useful group of medications is the calcium-channel blockers. In addition, certain tricyclic antidepressants, a class of drugs used to treat depression, are beneficial in the prevention of migraines in some individuals.

Another medication for the prevention of migraines is methysergide. This medication, however, is for short-term prevention of migraines, such as six months. If used for more

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than six months, the drug must be stopped for three to four weeks at the end of every six-month period.

Whether your doctor prescribes a medication for you for reversal therapy or starts you on a preventive program to treat your migraines, it's important to realize that no single drug therapy is effective in all patients or on all types of headaches. As a result, your doctor may need to prescribe one medication for you, but subsequently switch to another one or more before the right one for you is found.

Remember, migraines can be treated. In most cases, you need not put up with debilitating pain. Ideally, your goal is to prevent migraines from striking. But if an attack does occur, your doctor and you working together, can often reduce its intensity.

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