

New Insights into Migraine

Migraine

If you or someone you know is one of the 30 million migraine sufferers ("migraineurs") in the US you know how disabling this condition can be. Migraine headaches are described in the earliest of Egyptian and other ancient medical writings, and have probably been with our species since our most primitive period. Hieroglyphs depict Persian physicians "trephining," or cutting holes in the skulls of migraine sufferers to allow the evil humors to escape and relieve the headache. Though modern treatment is a bit more scientific and less traumatic, many migraineurs have possibly considered the primitive treatment. Research has given us new insights into the cause of migraine. Most migraineurs have inherited a nervous system that could be called "hyperalert." They are very aware of their surroundings, are very good at multitasking, are high achievers, may be very artistic, and often successful in many areas. They are not necessarily, as frequently thought, very anxious, nervous, or maladjusted. Under certain circumstances, this "migrainous" nervous system may change from one that is highly integrated and normally functioning to one that is unregulated and chaotic in terms of its neurochemical and electrical function. Sudden changes in the brain's environment, such as a dramatic increase or decrease in stress, or emotional trauma, or change in sleep pattern or even internal change, such as from hormonal factors, can trigger these episodes. The result is a series of symptoms that are all too familiar to migraineurs. Molecular alterations in the brain may result in the "prodrome." These symptoms include a vague awareness of subtle changes, such as food cravings, fatigue, muscle aches or a strange taste. Migraineurs often can predict an oncoming migraine by these symptoms. Next may come an "aura." This is an electrical event in the brain that results in neurologic symptoms such as seeing shimmering lights that move across the field of vision, holes in the visual fields, numbness of a particular area, or even difficulty concentrating, or confusion. The headache phase often, but not always, follows. It is frequently one-sided, but may involve the entire head. It is usually throbbing, aggravated by moving and accompanied by an aversion to noise and light. Nausea and vomiting commonly accompany the headache. Neurochemical changes in the brain cause the blood vessels to dilate. When dilated the blood vessel wall stretches and thins, allowing plasma to leak out into the surrounding brain tissue. An inflammatory process follows, and headache is the painful result of this swelling and inflammation. Migraine is a preventable and treatable condition. Prevention should start with a healthy lifestyle: daily exercise, healthy diet, regular sleep, avoidance of smoking and alcohol, and moderate use of caffeine may help some but not all migraineurs. There are long lists of food that migraineurs should avoid, but very little scientific information to support this folklore. Chiropractic treatment, acupuncture, biofeedback and other forms of relaxation therapy are effective for some people. A number of medications and herbal preparations have been used to prevent migraine, and when taken daily can reduce the frequency or eliminate attacks. Finally there are potent new medications that can abort or treat an attack of migraine by altering the neurochemical sequence that results in the headache. These medications, called the "triptans," (sumatriptan or Immetrex, naratriptan or Amerge, zolmitriptan or Zomig and rizatriptan or Maxalt) are capable of both aborting an impending headache and resolving a well established one. They can be self-injected, or taken by mouth or even sniffed.

Their effectiveness seems almost miraculous to some migraineurs, and they are quite safe in most people. Migraine sufferers who continue to have attacks should talk to their health care provider about prevention and treatment. With all the information and tools we now have, no one should have to suffer with recurrent migraine.