Women's Health Update
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Migraine Headaches in Women

Women account for about three-quarters of the 28 million Americans who experience migraine headaches. Attacks can begin at any age, but they typically start during childhood or adolescence when they appear almost equally in boys and girls. By early adolescence, however, the prevalence becomes more dominant in women. This prevalence of migraines peaks in women in their early forties and then declines steadily as women age, although they may not resolve completely. Migraines tend to reduce in frequency in postmenopausal women, with estrogen levels decreasing significantly and also stabilizing without monthly fluctuations.

The process of migraines begins in the nervous system, and, rather than a vascular or muscular disorder as we thought in the past, migraines are really a neurological condition. A migraine begins when the sensitive nervous system of a migraine sufferer is faced with an environment that can reduce their migraine threshold. These risk and trigger factors include hormonal changes, alcohol consumption, meal-skipping, sleep deprivation, medications, and other stressors. Under these circumstances, the neurochemical balance of the nervous system changes, and prodromal symptoms can occur. If this state progresses, the migraine threshold is crossed, and the “migraine generator” area of the brainstem is now activated. A wave-like effect occurs across the cerebral cortex; neurons are affected; and the trigeminal nerve branches and the vascular structures supplied by the cortex are activated. As the branches of the trigeminal nerve are activated, neuropeptides are released from the nerve. These then produce an inflammation of small arteries in the meninges, which stimulate platelet aggregation and serotonin release, potentiating the migraine process. Nerve impulses are transmitted back to the brainstem, and, as the process continues, brainstem reflexes are activated that produce migraine-related symptoms: nausea, vomiting, and photophobia. Pain fiber activation can also result in nasal congestion and pain in the sinus cavities.

Migraines are a complex neurologic process, and headaches are only one of many symptoms that can present during an attack. For women, proper management of migraines may also need to include the consideration of their hormonal situation. Migraines can be related in timing to the menstrual cycle, when there are fluctuations in hormones that then affect the brain chemistry and vasculature. Some women may find their migraines are worse before, or during, or after their menses. This then may require altering or balancing their hormonal environment to get the best results. My best results come with using an estradiol patch (for example, Climara 0.05 mg patch) applied one week before the onset of menses and left on the whole week. Some women will find that their migraines worsen when taking oral contraceptives. Fortunately, the majority experience no change or even experience improvement in their headache pattern with oral contraceptives.

Migraine management during pregnancy can be complicated. Although many women experience relief from headaches during pregnancy, others find that migraine symptoms stay the same or worsen. Finding effective solutions for migraine pain during pregnancy, whether with conventional medications or natural substances, is problematic due to the potential harm to the pregnancy.

As with menstrual migraines, migraines at perimenopause may require altering or balancing or stabilizing the hormonal environment. In perimenopause, this may require using a compounded estrogen with progesterone formulation, cycling it, three weeks on and one week off. Or the patient may need the estrogen in very steady doses, in which case, give the estrogen daily and then cycle the progesterone because the patient is still having a menses (for example: Estriol 1 mg/ Estradiol 0.25 mg/ Progesterone 50 mg, one cap twice daily, three weeks on and one week off; or Estriol 1 mg/ Estradiol 0.25 mg, one cap twice daily, continuously, and then oral micronized progesterone, 200 mg before bed, days 15-26.)
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There are several key botanicals and nutrients that have demonstrated a strong ability to raise the threshold of migraine patients and result in reducing the frequency, severity, and duration of migraines:

**Butterbur (Petasites)**, specifically the extract of the rhizome of the plant, when standardized to contain 15% petasins, reduces spontaneous activity and spasms in the smooth muscle of the vascular walls. It also reduces leukotrienes and thus provides an anti-inflammatory effect as well. Historically, butterbur has been used for its analgesic effects. Numerous research reports have demonstrated that butterbur reduces the frequency and intensity of migraine attacks. More recently, a randomized, double-blind, placebo-controlled clinical trial for migraine prevention was conducted on 229 migraine patients. Petasites extract was found to be safe and effective in reducing the frequency of migraine episodes, the number of days of migraine per month, and the intensity of the headache itself.

**Ginger** is one of our best anti-inflammatory plants, as well as a platelet aggregate inhibitor. Anecdotal reports suggest that ginger taken daily can reduce the frequency of migraines as well as reduce the intensity.

**Feverfew** is the most well-known herb for the prevention of migraines. Feverfew is a member of the daisy family, and its name is derived from the Latin for “chase away fevers.” Feverfew is rich in compounds known as sesquiterpene lactones. The most predominant of these is parthenolide. Feverfew leaf inhibits platelet aggregation and histamine release and regulates serotonin release from the platelets. This is what is believed to reduce the severity, duration, and frequency of migraine headaches and to lead to an improvement in blood vessel tone. Feverfew also inhibits prostaglandin synthesis and the release of arachidonic acid, which explains its further anti-inflammatory effects. The initial survey on feverfew and migraines was done with 270 migraine sufferers who had eaten feverfew daily. They found that 70% of those individuals had a decrease in the frequency and/or intensity of their attacks. Several clinical studies have been done to explore the treatment and prevention effects of feverfew with most showing the ability to reduce frequency, duration, and intensity. Visual disturbances, nausea, and vomiting associated with the attacks may also be reduced with feverfew.

**Riboflavin** appears to have an important role in reducing the frequency of migraines. Riboflavin has the potential of increasing energy efficiency within the cell. It is thought that this ability can then bring about stability of cerebral blood vessels and thereby reduce the frequency and intensity of migraines. Forty-nine migraine patients were treated with 400 mg per day of riboflavin for three months. Those in the migraine group had a 68% reduction in the migraine severity score.

Low **magnesium** levels may also play a significant role in headaches. Low magnesium levels have been detected in sufferers of both migraine and tension headaches. A magnesium deficiency may be the precursor for events that can lead to a migraine attack or tension headache. In one study, patients suffering from recurrent migraines had a 41% reduction in frequency by week nine when taking magnesium daily. The number of days with pain also decreased in the magnesium group as did a need for pain medications. It may be that only those who have low magnesium levels in the tissue or blood may benefit from taking magnesium.

**5-hydroxytryptophan (5-HTP)** also has an important role in the migraine process in that it modulates serotonin levels and increases endorphin levels. Several studies have compared 5-HTP with a pharmaceutical prescription. In one of the largest clinical trials, 124 patients received either 5-HTP or methysergide for six months. Seventy-one percent of the patients who were taking 5-HTP demonstrated significant improvement in frequency and number of severe attacks, which was the same as the effect achieved with the prescription medication. Two other studies demonstrated that 5-HTP was superior to the pharmaceutical prescription. For those individuals who have headaches that are also accompanied by sleep disorders, 5-HTP is especially appropriate.

Patients who are taking SSRI anti-depressants or have reduced kidney function should be monitored more closely, and good clinical judgment should be utilized. These herbs and supplements should be avoided if an individual is on anti-coagulant therapy, is taking barbiturates or blood sugar-lowering medications, has liver disease, or is pregnant or nursing.

Remember that a holistic approach to improving migraines involves addressing any hormonal imbalances and influences, reducing or avoiding common triggers like dietary amines (chocolate, cheese, beer, wine), reducing or avoiding the most common foods that induce migraines (cow dairy, wheat, chocolate, eggs, fish, coffee, nuts), and avoiding any known or suspected individual food allergens. Consider nutrient deficiencies, stress, skeletal misalignments, and muscle tension. As always, encourage patients to eat a whole-foods diet free of preservatives, white sugar, white flour, and fried foods.

**Notes**

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Dr. Werbach has teamed again with Michael Murray, ND for a new edition of Botanical Influences on Illness, their acclaimed sourcebook for clinicians practicing herbal medicine, now twice the size of the original edition. For information, contact Third Line Press Inc., 4751 Viviana Drive, Tarzana, California 91356; 800-916-0076; 818-996-0076; Fax: 818-774-1575; e-mail: tlp@third-line.com; Internet: http://www.third-line.com.

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