

MIGRAINE AND HEADACHE DISORDERS

Obstetrics & Gynecology Department

Multicare Associates of the Twin Cities

Headaches

Headache is a public health problem affecting as many as 29 million Americans. Fourteen percent of American women miss all or part of a day of work or school each month because of headache disorders. There is a link between the female hormones, estrogen and progesterone, and migraine. Headaches that begin after age 50 are more likely to be caused by a serious medical condition.

Headache Triggers. Alcohol, caffeine, and foods that contain tyramine (cheese), nitrates (processed meats), and monosodium glutamate (Chinese food) can trigger headaches. Fasting or skipping meals, too much or too little sleep, or inadequate fluid intake can trigger headaches. Other triggers are: stress, anxiety, excitement, anger, bright lights, noise, eyestrain, inhaled fumes like gasoline or cleaning agents, or estrogen withdrawal.

Headache Alarms. You should see a physician immediately if: you are having your first severe headache and are over 50 years old, you have a sudden onset worst headache of your life, you have an accelerating pattern of headache, you have a fever, stiff neck, and rash, you have loss of strength or feeling, or you have cancer or HIV (AIDS).

Migraines

Migraines are three times more common in women than men. It occurs most often between the ages of 25 and 55. Seventeen percent of American women have had a migraine in the last year. Of women with migraines, 25 percent have more than three episodes per month, 35 percent have between one and three episodes per month, and 40 percent have less than one per month. A migraine episode can be divided into four phases: the prodrome, the aura, the headache, and the headache resolution phase.

Prodrome Phase. Premonitory phenomena or prodrome occur in 60 percent of patients with migraines. Patients usually experience a change in their mood, or behavior that may include feelings of anxiety, nervousness, exhilaration, depression, irritability, chocolate or other cravings, or just that a migraine episode is coming.

Aura Phase. Auroras may include flashing lights, spots, wavy vision, loss of vision, double vision, dizziness, loss of balance, confusion, or even

loss of consciousness. Most aura symptoms develop over 5 to 20 minutes and usually last less than one hour. Numbness in the hand, which moves up the arm, then to the face, lip and tongue constitute the second most common aura. Muscle symptoms may occur in up to 18 percent, true weakness is rare, and always on just one side. If you have numbness or muscle symptoms with your migraine auras you should not use the birth control pill. The aura is caused by a decrease in blood flow to the surface of the brain that begins in the back and spreads across the entire surface over 10 to 15 minutes. This is caused by neuronal dysfunction, not by a constriction in the blood vessels.

Headache Phase. The typical migraine is one sided 60 percent, throbbing in nature, moderate to severe in intensity, and aggravated by physical activity. This phase occurs most frequently in the morning. It lasts from 4 to 72 hours. Other features may include loss of appetite, nausea 90 percent, vomiting 30 percent, aggravation by light, sound, or smells. This phase usually begins during or within 60 minutes of the last aura.

Resolution Phase. This is the period of recovery from the migraine. It is common for one to feel exhausted. Many benefit from sleep in this period. This period of relief may be blunted by a fear of yet another episode.

Treatment Options

Lifestyle Changes. Migraine sufferers are hypersensitive to many internal and external stimuli, including hormonal changes, dietary factors, environmental changes, stress, and sensory stimuli. Regular exercise, regular mealtimes, adequate sleep, and the maintenance of accustomed patterns of activity are helpful in decreasing migraine frequency.

Diet. Migraine sufferers should avoid foods or additives that they feel might provoke a migraine. Avoid alcohol, especially red wine. Avoid consumption of monosodium glutamate “Chinese food”, aspartame “NutraSweet”, strong cheeses, and cured meats “nitrites”. Patients with lactose intolerance should use Lactaid when eating dairy products.

Acute Medical Treatment

The goals of acute migraine treatment include treating episodes rapidly and consistently, restoring patient's ability to function, and minimizing the use of backup and rescue medications. No evidence supports the use of triptans (Imitrex, Maxalt, or Zomig) during the aura phase of a migraine episode. However, oral triptans may be used for gradual onset migraine headache when rapid pain relief is not required. Select a non-oral route of administration if you usually have nausea or vomiting associated with your migraine episodes. When you use disintegrating tablets dissolve them on your tongue without water. If you have more than two headache days per week, consult your physician.

Over the Counter Medications (adult doses).

- Acetaminophen “Tylenol” 500mg tablets: may use up to 2 tablets every 4 to 6 hours, maximum 8 tablets in 24 hours.

- Aspirin 325mg tablets: may use 2 tablets every 4 to 6 hours, maximum 12 tablets every 24 hours.
- Acetaminophen/aspirin/caffeine “Excedrin migraine” 250mg/250mg/65mg: 2 tablets with water, maximum 2 tablets in 24 hours.
- Ibuprofen 200mg tablets “Advil or Motrin”: may use 2 to 4 tablets every 4 to 8 hours, maximum 16 tablets in 24 hours.
- Naproxen Sodium 220mg tablets “Aleve”: one to two tablets every 8 to 12 hours, maximum 3 tablets in 24 hours.

Common Prescription Medications (adult doses).

- Ergotamine/Caffeine “Cafergot” 1mg/100mg tablets: 2 tablets at onset, may repeat 1 to 2 every 30 to 60 minutes.
- Ergotamine/Caffeine “Cafergot” 2mg/100mg Suppositories: 1/3 to 1 suppository at onset, may repeat in 1 hour. Used when vomiting is an issue.
- Aspirin “Fiorinal” or Acetaminophen “Fioricet” /caffeine/butalbital 325mg/40mg/50mg tablets: 1 to 2 tablets every 4 hours, maximum 6 in 24 hours. May be habit forming.
- Sumatriptan “Imitrex” 25mg, 50mg and 100mg tablets, 6mg injection, and 5mg, 10mg or 20mg nasal spray: one tablet at onset may be repeated in 2 hours, maximum tablets 200mg in 24 hours, maximum injection 12mg in 24 hours, maximum nasal spray 40mg in 24 hours.
- Rizatriptan “Maxalt” 5mg or 10mg tablets or disintegrating tablets: one tablet at onset may be repeated in 2 hours, maximum 30mg in 24 hours.
- Zolmitriptan “Zomig” 2.5mg or 5mg tablets or disintegrating tablets: one tablet at onset may be repeated in 2 hours, maximum 10mg in 24 hours.
- Prochlorperazine “Compazine” 25mg suppository: use twice daily for severe nausea.
- Metoclopramide “Reglan” 10mg: take for nausea and to enhance to absorption of other oral medication.

Rescue Prescription Medications. Opioids

These medications are only used when other safer medications have failed to give acute pain relief!

- Butorphanol “Stadol” 1mg intranasal or injection: one spray in one nostril, may repeat in one hour, and then again in 3 to 4 hours.
- Meperidine “Demerol” 50mg tablets or injection: one to two tablets every 4 hours.

Warning: Opioids are addictive and should not be used more than twice per week. Opioids are also useful when you awaken in the middle of the night with a migraine. Sedation, which is sometimes an undesirable side effect, may help you go back to sleep and awaken headache free in the morning.

Preventative Therapy

Preventive therapy should be used in cases of more than two episodes of migraine occur per week, overuse of acute medications, migraines interfere with daily function, uncommon migraine conditions, or patient preference. These medications include beta blockers (timolol, propranolol), antidepressants (amitriptyline, doxepin, fluoxetine, nortriptyline),

calcium channel blockers (nifedipine, verapamil), Aspirin 80mg/day and anticonvulsants (depakote). A full therapeutic trial of these preventative medications may take two to six months. If these medications are working one may consider tapering, or discontinuing treatment after three to six months.

Alternative Medications

Feverfew is a medicinal herb used in the self treatment of migraine. The clinical effectiveness of feverfew has not been established.

Riboflavin (Vitamin B2) 400mg per day showed significant benefit for migraine prevention.

Menstrual Migraine

Menstrual migraine occurs as early as one day before and up to four days after the onset of menses. It is most likely caused by withdrawal of estrogen. Menstrual migraines are usually treated with estrogen patches like Climara 0.1mg/24hr to maintain serum estrogen levels between 60 and 80pg/ml. Another option includes continuous oral contraceptives, with breaks every three to four months. If menstrual migraines are associated with breast engorgement, and irritability bromocriptine 2.5 to 5 mg per day may be helpful during the luteal phase of the menstrual cycle.

Patient Education Resources

[American Council for Headache Education](#)

[American Headache Society](#)

[National Headache Foundation](#)

[National Institute of Neurological Disorders and Stroke](#)