Association of Reproductive Health Professionals

# What You Need to Know
# Women and Migraine

Migraine headaches can cause debilitating pain that results in days missed from work or school and overall decreased quality of life.[1] Of all types of migraines, those associated with menstruation tend to be the longest-lasting, most severe, and most confusing and difficult to treat.[2] An estimated 12.6 million women in the United States—up to 60 percent of all women migraineurs—suffer from these potentially disabling headaches just before or during their menstrual periods.[3,4] The high numbers of migraines among women that occur at a time of great hormonal fluctuation indicate a connection between migraine headache pain and female sex hormones.[5,6,7]

Prophylactic and acute treatments are available to reduce the impact of menstrual migraine once an appropriate diagnosis is made.

## Diagnosis of Menstrual Migraine

For a diagnosis of migraine, a patient must have had at least five attacks that meet the following criteria:

1. Headaches last 4 to 72 hours
2. Headache has at least two of the following characteristics:
   - Unilateral location
   - Pulsating quality
   - Moderate or severe pain intensity
   - Aggravation by or causing avoidance of routine physical activity
3. Headache is accompanied by at least one of the following:
   - Nausea and/or vomiting
   - Photophobia and phonophobia

For a diagnosis of menstrual migraine, these attacks must occur in a menstruating woman on days -2 to +3 of menstruation (day 1 is onset of menses) in at least two out of three menstrual cycles. In pure menstrual migraine, attacks occur at no other times of the cycle; in menstrually related migraine, attacks occur additionally at other times of the cycle.[8]

Migraine also may be preceded by an aura consisting of at least one of the following:

- Visual symptoms (flickering lights, spots or lines, and/or loss of vision)
- Sensory symptoms ("pins and needles" and/or numbness)
- Speech dysphasia

The symptoms of aura develop gradually, last no longer than 1 hour, and are fully reversible.[8] Menstrual migraine is almost invariably without aura, even in women who have attacks with aura at other times of the cycle.[9]

## Acute Treatment

Numerous medications have been proven effective for the acute treatment of pure menstrual migraine and menstrually related migraine. These include:

- Combination analgesics (acetaminophen, aspirin, and caffeine)
- NSAIDs
- Mefenamic acid
- Dihydroergotamine (DHE)
- Triptans
- Phenothiazines - rescue/emergency treatment

It is important to treat symptoms early and educate patients to participate in management of menstrual migraine. In general, large, single doses are more effective than repetitive small doses. Clinicians should develop "step care" depending on severity of migraine as well as safety and cost of medication and watch for medication overuse, rebound, and withdrawal.

Summary Recommendations: Acute Treatment

| Medication | Levels of Evidence* | Dosing Regimen | Grade |
|---|---|---|---|
| Sumatriptan | 4 RCTs: 1 good, 3 poor | 50 and 100 mg | B |
| Rizatriptan | 2 RCTs: good | 10 mg | B |
| Mefenamic acid | 1 RCT: fair | 500 mg 3x/day | B |
| Zolmitriptan | 2 RCTs: 1 fair, 1 poor | 2.5 mg | C |
| Naratriptan | 1 RCT: poor | 2.5 mg | I |

* RCT = randomized clinical trial.

B = good evidence to use treatment in menstrually related migraine; benefits outweigh harms; improves important health outcomes.

C = fair evidence that treatment can improve MRM, but balance of benefits and harms too close to justify a general recommendation.

I = insufficient evidence to recommend for or against treatment for MRM.

## Prophylactic, Short-term Treatment

Perimenstrual prophylaxis should be considered if a patient has headaches that are functionally limiting and do not respond to acute treatment. Perimenstrual prophylaxis works best in patients who have regular, predictable periods.[10]

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Options for prophylactic perimenstrual treatment include:

- NSAIDs
- Supplemental estrogen
- Triptans
- Extended-duration combined hormonal contraceptives

| Summary Recommendations: Short-term Prophylactic Treatment | | | |
|---|---|---|---|
| Medication | Levels of Evidence | Dosing Regimen | Grade |
| Transdermal estradiol | 4 RCTs: inconsistent | 1.5 mg perimenstrually | B |
| Frovatriptan | 1 RCT: good | 2.5 mg BID perimenstrually | B |
| Naratriptan | 1 RCT: fair | 1 mg BID perimenstrually | B |

## Prophylactic, Long-term Treatment

Continuous hormonal therapy may be indicated if a patient needs contraception, has frequent headaches throughout her menstrual cycle, has irregular periods, and has no contraindications for estrogen-containing methods.[9]

Continuous hormonal therapy, in place of the usual regimen of 3 weeks of active pills followed by 1 week of inactive pills, has been recommended based on evidence that estrogen withdrawal provokes migraine in susceptible women. There have been no double-blind placebo-controlled trials, or open-label trials, of continuous hormonal therapy in menstrual migraine. However, there is increasing clinical experience of their use in this way.[11] Results of an open-label study of headache in women taking extended-dosage oral contraceptives (OCs) are promising for women who can use hormonal therapies.[12]

Hence, options for prophylactic, long-term treatment for women who have migraine without aura should consist of continuous hormonal contraception (i.e., reduced or eliminated hormone-free interval). Women who have migraine with aura should use progestin-only methods of contraception, such as intramuscular depot medroxyprogesterone acetate, subdermal etonorgestrel, or levonorgestrel intrauterine system (Mirena®).

## Contraception: Migraine Without Aura

Because of the synergistic effect of migraine with aura plus combined oral contraception on the risk of ischemic stroke, accurate diagnosis of migraine aura is essential for the safe prescribing of estrogen-containing OC pills.

Low-dose estrogen contraception can be used in women who have migraine without aura, are under age 35, and have no other risk factors for stroke. Low-dose estrogen-containing methods include but are not limited to continuous hormonal contraception, which may have the additional benefit of prophylaxis. Non-estrogen options also may be considered. These include the progestin-only pill, subdermal implants, intramuscular depot medroxyprogesterone acetate, and levonorgestrel-releasing intra-uterine system (Mirena).

## Contraception: Migraine with Aura

ARHP recommends that non-estrogen-containing methods should be used in women migraineurs who have aura.

To date, there is no consensus on guidelines for prescribing combined oral contraceptives in women who have migraine with aura. The International Headache Society advises that low-dose estrogen may be prescribed in women who have simple visual aura.[13] The American College of Obstetricians and Gynecologists recommends using progestin-only intrauterine or barrier contraception.[14] Meanwhile, the World Health Organization states that estrogen-containing contraception is an absolute contraindication in all women who have migraines with aura.[15]

## Menopause and Hormone Replacement Therapy (HRT)

Migraine aura is not a contraindication to use of HRT. In contrast to anovulatory doses of synthetic estrogen used for contraception, HRT uses physiological doses of natural estrogen. If an aura appears for the first time after the start of hormone therapy, reduce estrogen and consider changing route of delivery. Where progestin is required, continuous delivery is best.[16]


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