

Non-Drug Ways to Manage Premenstrual Syndrome (PMS)

What is premenstrual syndrome?

Premenstrual syndrome (PMS) is a common disorder. Up to 40% of women of child-bearing age may experience it. PMS involves emotional, behavioral, and physical symptoms that occur one to two weeks before the start of a menstrual cycle. Generally, the symptoms increase during the week before the period and improve once the period has started. Symptoms and their severity can vary a great deal from one woman to the next. The most common symptoms include: fatigue, irritability, abdominal bloating, breast tenderness, and depression. Some women also experience anxiety, anger, crying spells, swelling in the arms and legs, food cravings, cramping in the lower abdomen, and low back pain. The cause of PMS is unknown. It is likely caused by several things in combination.

What is the standard medical treatment for PMS?

Standard medical treatments include the following: antidepressants (especially a class of drugs called selective serotonin reuptake inhibitors or SSRIs), anti-inflammatory drugs like Ibuprofen or Naproxen, birth control pills, and other hormonal therapies.

What are some non-drug ways to help with PMS symptoms?

There are a number of non-drug approaches that can help to ease symptoms. These include: exercise, cognitive behavioral therapy, nutrition, acupuncture, and supplements/herbs.

Note: there is a more severe type of premenstrual syndrome known as premenstrual mood dysphoric disorder (PMDD). Women with PMDD tend to have more severe psychological symptoms affecting their quality of life. Management of PMDD will not be discussed here.

- **Exercise.** Getting regular exercise is important in managing PMS symptoms. A small, randomized control trial (the gold standard in research) showed that regular aerobic exercise for six months decreased PMS symptoms. (Aerobic activities are those that increase the need for oxygen and improve the way the heart and lungs work). Aerobic exercise works better for PMS than strength training. A woman who has not been exercising can begin with brisk walking. A good goal is to work up to at least 150 minutes (2.5 hours) of aerobic exercise per week.
- **Cognitive behavioral therapy (CBT).** Women with PMS report that emotional symptoms are the ones that interfere most with their daily activities. One study found that depression improved for women with PMS who received individual CBT. The women attended sessions each week for 12 weeks. Their symptoms were then compared to those of women who were on a waiting list to receive therapy. CBT is a form of psychotherapy that focuses on how people think. It is based on the idea that a person's feelings and behaviors are influenced by her own thoughts, not by other people or situations. This



C. Luchterhand
UW Integrative Med.



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Cognitive behavioral therapy (CBT) (con't).

therapy helps people change the way they think about whatever is bothering them, so they can feel and act better, even if the situation does not change. It is important to note that CBT techniques vary widely and differ among practitioners. The authors of a recent review of medical literature suggest that therapy focused on acceptance and mindfulness may be most helpful for PMS.

- **Nutrition.** Research has found that eating a number of small meals throughout the day can help improve PMS symptoms. Other helpful dietary changes include: limiting caffeine, chocolate, and alcohol, especially during the two weeks before the start of menstrual cycle. Also, eating a diet high in fiber will help reduce symptoms. For women whose bodies “hold water” or bloat, decreasing sodium (salt) can be helpful.
- **Acupuncture.** A review of 10 randomized controlled studies showed that acupuncture is helpful for PMS. Another study found that symptoms improved for women who received about 30 sessions of acupuncture over three menstrual cycles. Those receiving acupuncture were compared to women who received only hormonal treatment (progestin) for PMS. Acupuncture practices may vary depending on the practitioner.
- **Supplements/Herbs.**
 - **Calcium.** Calcium is a mineral that has many duties in the body. Among other roles, it helps keep hormones at the right level and muscles and nerves working properly. An imbalance in calcium may be one cause of PMS. One randomized control trial found that women had less bloating and fewer food cravings and cramps after taking 1200 mg of calcium carbonate each day for three months. Side effects of calcium include constipation and possibly kidney stones. Avoid taking more than 1200 mg for prolonged periods of time. High doses have been associated with complications of the heart and blood vessels.
 - **Magnesium.** Magnesium is another mineral needed by the body. Green leafy vegetables, beans, and nuts are good sources of magnesium. We do not know exactly how the level of magnesium in the body is linked to PMS. However, women with PMS tend to have lower magnesium levels in their body’s cells than women without PMS. Research is unclear on whether taking magnesium supplements improves PMS symptoms. Some studies have found it helpful. Others have not. Do not take more than 350 mg of magnesium daily. Side effects include diarrhea, increased thirst, low blood pressure, fatigue, and loss of reflexes. The first side effect of too much magnesium is diarrhea. If this occurs, reduce the dose or consider changing to a formulation that causes less diarrhea such as chelated magnesium or magnesium glycinate.
 - **Vitamin E.** We have known for a long time that Vitamin E can be used to treat breast pain. Three randomized controlled trials have shown symptom reduction by taking 300-400 IU of Vitamin E each day of mixed tocopherols (not just alpha tocopherol). It is rare for healthy women to have side effects from Vitamin E. Side effects can include upset stomach, headache, vision changes, and fatigue. Women with diabetes or heart disease should contact their clinicians before taking Vitamin E.



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- **Vitamin B6.** This vitamin is found in meat, poultry, and many vegetables. It is needed for a variety of chemical reactions to keep the body working properly. It is thought to be helpful for PMS by affecting serotonin, the “feel good” hormone in the brain. Studies have found that 50 to 600 mg of Vitamin B6 per day can improve PMS symptoms. A note of caution: many of these studies were flawed, so there is conflicting information on how helpful B6 is for PMS. Do not take more than 100 mg each day because of possible harm to the body. Side effects usually occur when taking over 1000 mg daily. They can include nerve problems, upset stomach, headache, sleepiness, allergies, and breast soreness.
- **Chasteberry (*Vitex agnus castus*).** This herb affects hormones. It can reduce estrogen and increase progesterone levels. One study compared chasteberry to a placebo (which looked like chasteberry but did not contain the herb). After three months, the PMS symptoms of the women who received the chasteberry were improved compared to the women who took the placebo. The dose is 20-40 mg daily. No serious side effects occur with chasteberry, but it can cause upset stomach, rashes, and dizziness.
- **Evening Primrose Oil (*Oenothera biennis*).** This is an herbal remedy containing gamma-linoleic acid, an essential fatty acid. Research results have been mixed. Some clinical trials found that evening primrose oil reduced PMS symptoms. Other studies showed that it did not help. Researchers who looked carefully at study results have concluded that evening primrose oil is not effective for PMS symptoms. Evening primrose oil has few side effects. It can cause upset stomach or headache.

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The information in this handout is for general education. It is not meant to be used by a patient alone. Please work with your health care practitioner to use this information in the best way possible to promote your health.

This handout was created by Keren Schaalman, former MS IV, and edited by Charlene Luchterhand, MSSW, Integrative Medicine Program, Department of Family Medicine, University of Wisconsin-Madison School of Medicine and Public Health.

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