

MENSTRUAL PROBLEMS, LIFESTYLE, FOODS, AND SUPPLEMENTS

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Menstrual pain is the number one reason why women younger than 30 absent themselves from work or school. Statistics show that 50% or more women in their childbearing years suffer from dysmenorrhea (menstrual pain). Lifestyle has an important role to play in the prevalence of dysmenorrhea in Western populations. Being sedentary, smoking, imbalanced alcohol consumption, and uncontrolled dieting are the usual suspects.

My colleague Tori Hudson, N.D., in her wonderful book Women's Encyclopedia of Natural Medicine: alternative therapies and Integrative Medicine has an entire chapter on dysmenorrhea, listing **holistic lifestyle approaches** that might decrease or prevent dysmenorrhea:

- **Stress reduction:** relaxation might help relax the pelvis and low back muscles. (Of course, the most holistic approach to stress reduction involves **meditation techniques like Kriya yoga.**)
- Increase **exercise:** may improve blood flow to the uterus and create optimal pelvic musculature.
- **Eat well** (avoiding fast and highly processed food high in salt/sugar/fat), emphasizing a diet rich in veggies, whole grains, fresh fruits, nuts, seeds, and some chicken and fish.
- **Maintain a healthy weight** by staying physically active, minimizing and managing stress well, and eating healthy
- Avoid smoking
- Maintain **optimal digestive functioning:** irregular bowel habits may be correlated with primary dysmenorrhea. The healthier your diet, the healthier your bowels.
- Good posture and spinal alignment may decrease the tendency toward menstrual cramps
- Avoid tampons, they might make menstrual cramps worse
- Pay attention to food allergies that might contribute to increased water retention, gas and bloating which might increase pelvic congestion
- Avoid an IUD which might make menstrual cramps worse

Dietary Changes: switching to good nutritional habits might bring relief of menstrual cramps. Foods to avoid would include foods high in arachidonic acid. This is the fat the body uses to produce the series-2 prostiglandins which are the ones that cause muscle and uterine contractions. These foods include: dairy products, saturated fats and animal foods.

Foods that seem to help diminish menstrual cramps are foods that increase the antispasmodic prostiglandins. Certain **fish**, including salmon, tuna, and halibut contain linolenic acid, a healthy fatty acid that helps to relax muscles with the production of a different prostaglandin. **Nuts and seeds, especially flax, pumpkin, sesame and sunflower** seeds can improve these prostiglandins.

Whole grains, legumes, vegetables and fruits all can promote regularity and normal body functioning.

Salt can aggravate menstrual cramps as this will increase fluid retention and worsen bloating. Sugar might interfere with the absorption and metabolism of some of the B vitamins and minerals. Nutritional imbalances can lead to difficulty in muscle functioning and lead to muscle spasms.

Nutritional Supplements:

Several nutritional supplements have been shown to have a positive effect on menstrual cramps (Hudson, 1999, pp185-186). A supplement high in all the B-complex vitamins is highly recommended.

Vitamin B3 (Niacin) has been shown to be effective in approximately 88% of women with menstrual cramps. Women who noticed a niacin flush seemed to have better relief than those who didn't. It is thought that the vasodilating effect of niacin might lessen the spasm of the uterine arteries. Recommended dosages: Niacin: 100mg twice/day throughout the month, 100mg every 2-3 hours during menstrual cramps.

Vitamin E was studied in the 1950's for the treatment of dysmenorrhea and approximately 70% of women tested found they had relief of their menstrual cramps within two menstrual cycles. Recommended dosage: 150-800 IU/day.

Calcium and magnesium supplementation seems to decrease menstrual cramps. Muscles need both calcium and magnesium to maintain their normal muscle tone, and a deficiency might lead to increased cramps. Low calcium intake has been associated with menstrual water retention and greater pain during menses. Recommended dosages: 1200 mg of calcium, and 400 mg magnesium/day (If you experience constipation or diarrhea while taking magnesium, talk to your doctor. You may need to increase or decrease the amount of magnesium you take.).

Essential fatty acids are the source of beneficial prostiglandins: linoleic acid (omega-6) and linolenic acid (omega-3). These are essential to our body's functioning, and needed every day. The typical American diet seems to be higher in the omega-6 oils than the omega-3 oils, and the excessive omega-6 fatty acids might contribute to menstrual cramps. Sources of omega-3 essential fatty acids are: **flax oil, borage oil, current oil, or evening primrose oil**. Increasing these in your diet can improve the balance between these two types of oils. Fish oils can provide this supplementation, and Evening Primrose Oil 500-1000 mg up to 3 times/day can improve the balance of Omega-3 oils.

2 studies on menstrual pain and fish oil

(You should always take vitamin E supplement when supplementing with fish oil capsules.)

In one study, researchers at the University of Cincinnati Medical Center reasoned that interventions, which would decrease the level of the prostaglandins and leukotrienes, would be beneficial in reducing menstrual pain. It is known that **fish oils** (eicosapentaenoic acid [EPA] and docosahexaenoic acid [DHA]) compete with arachidonic acid for the enzymes needed to produce prostaglandins and leukotrienes and that fish oils also suppress the conversion of linoleic acid (the main omega-6 fatty acid in the diet) to arachidonic acid. The researchers carried out a clinical trial involving 42 girls between the ages of 15 and 18 years. All the girls experienced significant menstrual pain during their periods. The extent of pain was evaluated using the Cox Menstrual Symptom Scale at entry to the study and after 2 months of daily supplementation with a placebo or 1080 mg of EPA + 720 mg of DHA. The treatment period and the fish oil dose were selected to permit optimal incorporation of the EPA and DHA into the phospholipids of the cell membranes.

At the end of the study the Cox rating had decreased from an average of 69.9 to an average of 44.0 in the fish oil group. No change was observed in the placebo group. **The amount of painkiller (ibuprofen) tablets consumed during the menstrual periods dropped by more than 50% during the fish oil treatment as compared to the placebo treatment.** *Harel, Z, et al. Supplementation with omega-3 polyunsaturated fatty acids in the management of dysmenorrhea in adolescents. American Journal of Obstetrics and Gynecology, Vol. 174, April 1996, pp. 1335-38*

Another research study involved 181 healthy Danish women between the ages of 20 and 45 years who did not use oral contraceptives and who were not pregnant. The women completed 4-day food frequency questionnaires and recorded their menstrual symptoms, particularly the extent of pain. The researchers noted a strong association between increased pain and a low intake of **omega-3 fatty acids**

from fish, between increased pain and a low intake of **vitamin B12 (also present in fatty fish)**, and between increased pain and a low ratio of omega-3 to omega-6 fatty acids in the diet. They conclude that **a higher intake of fish oils correlated with milder menstrual symptoms.**

Deutch, B. Menstrual pain in Danish women correlated with low n-3 polyunsaturated fatty acid intake. European Journal of Clinical Nutrition, Vol. 49, 1995, pp. 508-16