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Premenstrual syndrome: Can dietary supplements help relieve the symptoms?



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Premenstrual syndrome (PMS) is the term used to describe a number of symptoms, both physical and psychological, that start about a week or 10 days before a woman's period (menstruation). Some people also call it premenstrual tension (PMT). Common symptoms include sore breasts and abdominal pain, as well as headaches. Many women feel depressed, irritable, tired and unfocused in the days leading up to their period.

If it is PMS, these symptoms usually go away when the period starts, although sometimes they will continue for a few days during menstruation as well. Most women are affected by PMS symptoms to one degree or another every now and again. But about 5 out of 100 women (5 %) regularly have symptoms which are so bad that their daily lives are noticeably affected.

The cause of PMS is not fully known, but hormones and other substances probably play a role. It is not necessarily the case that women with PMS have abnormal levels of hormones, for example. Rather, their bodies may simply be more sensitive to the hormones. Hormone treatments that suppress the production of hormones and the menstrual cycle are common treatments to try to relieve PMS symptoms. Other conventional medicines used include diuretics (drugs that get rid of excess water), painkillers and antidepressants.

All of these medications can cause adverse effects. That is one of the reasons why many women try out complementary treatments, such as herbal remedies or dietary supplements. Some women manage their PMS with exercise or relaxation techniques.

Researchers at the University of Leeds in England analysed trials on the effect of herbal remedies and dietary supplements in PMS to find out if they can really help. They looked for good quality trials in women whose PMS was diagnosed using a reliable method, to be sure that their symptoms were not due to depression or anxiety disorders.

They found 26 randomised controlled trials, including trials on calcium supplements, pyridoxine (vitamin B6), magnesium supplements, evening primrose oil, chaste tree extracts (vitex agnus castus), St John's wort (hypericum) and ginkgo biloba. The women who tried out treatments in the

trials took their dietary supplement or herbal medicine every day for the duration of at least one menstrual cycle.

The researchers came to the conclusion that calcium supplements may relieve PMS symptoms. More than 1,000 women participated in the calcium trials. The women taking calcium took between 750 mg and 1200 mg of calcium twice a day for at least three menstrual cycles.

More than 1,600 women with PMS participated in the trials on pyridoxine (vitamin B6). This also helped relieve PMS. The researchers concluded that regularly taking a daily dose of 50 mg to 100 mg might relieve the symptoms of PMS.

For both of these treatments, women need to take the supplements throughout the whole month, not just when their period is due. Other researchers have looked at the adverse effects of continuously using these products. Pyridoxine can sometimes cause a condition called peripheral neuropathy, which can cause pain in the legs. There were no reports in these trials, though, of harm from taking calcium supplements.

None of the other herbal remedies or dietary supplements have so far been proven in trials to help relieve PMS symptoms. The trials on magnesium and evening primrose oil had conflicting results. Overall, further and more reliable research is needed to draw conclusions about the effects of all the other options that have been studied so far.

Glossary

calcium

Calcium is an important mineral for human health. It is one of the building blocks for bones and teeth, and it is necessary for blood clotting, the muscles and the nerves. Calcium occurs in milk and milk products, as well as in green leafy vegetables. People can get a calcium deficiency if they have a chronic inflammatory bowel disease, as well as in pregnancy or during breastfeeding.

hormones

“Hormones” is the collective term for different types of messenger substances in the body. They are produced in different organs or tissues and released into the blood or the lymphatic system to be distributed throughout the body. Hormones only have an effect on those parts of the organism that have a corresponding docking site. This is how hormones can have such specific effects. Insulin, estrogens, vasopressin and thyroxine are some well-known hormones. Many medical ingredients imitate the effect of hormones.

depression

Depression is one of the most common mental illnesses, and it can be mild, moderate or serious. There are several different types of depression that can be recognised by different signs. Which symptoms of depression occur and how strong and frequent they are vary from person to person. People in any social or age group can be affected, both women and men. If someone has had at least two of the following symptoms for longer than two weeks, it might mean that they are depressed: deep sadness; listlessness; loss of interest in the things they usually care about.

dietary supplement

Dietary supplements (also known as food supplements or nutritional supplements) are concentrated vitamins, minerals, trace elements, fibers and/or other substances that are intended to supplement the diet. Advocates of dietary supplements claim that they have a certain, often preventive or strengthening effect on the body. They are available as capsules, pills, powder or ampules, for example. From a legal point of view, dietary supplements rank among foods and therefore – as opposed to medications – do not need official approval. More information is available on the website of the German

Federal Institute for Risk Assessment (Bundesinstitut für Risikobewertung, BfR): [To the BfR website \(in English\)](#)

Sources

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You can find a list of the evidence and other scientific literature on which this information is based at **www.informedhealthonline.org**

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