

Pycnogenol® for menstrual discomfort

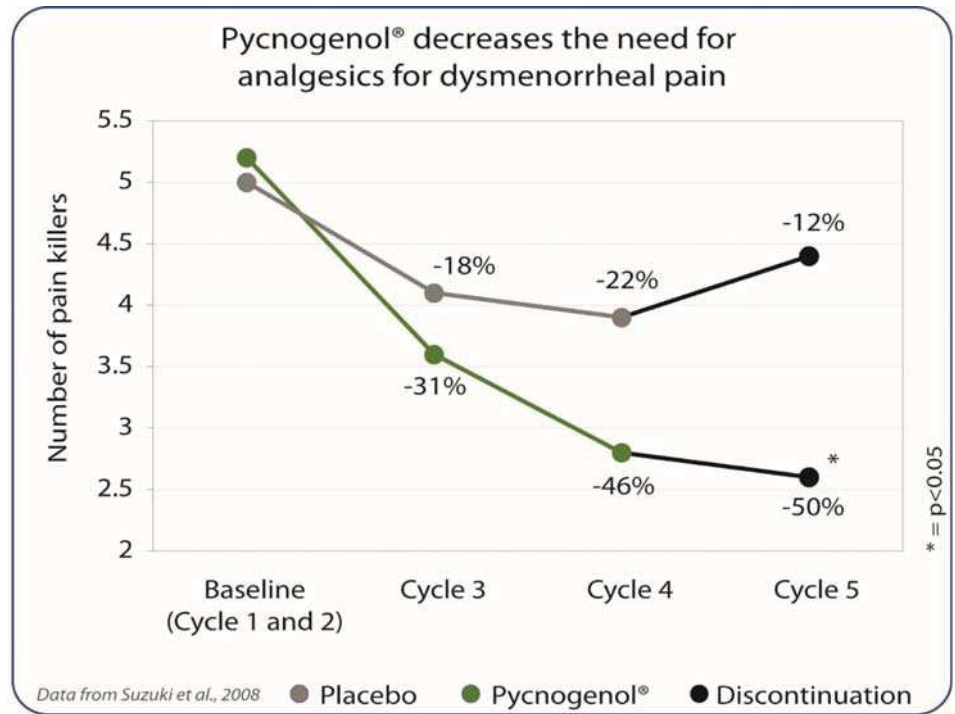
Dr Franziska Weichmann, Manager, Scientific Communications and Product Development, Horphag Research, explains the benefits of Pycnogenol for women

Every woman in the reproductive age is confronted with regular inconveniences connected to menstruation. For 16 to 91 per cent of menstruating women – depending greatly on the age – this comes with throbbing cramping pain in the lower abdomen (so-called dysmenorrhea), which, for some, is just a monthly annoyance; for others, strongly interferes with everyday life⁽¹⁾. Young women between 17 and 24 years old are generally most affected by severe pain during their menses. For up to 15 per cent of women suffering from dysmenorrhea, the pain is so severe that they cannot attend work, school or other activities on a regular basis⁽²⁾. Menstrual cramps are often accompanied by other symptoms such as back pain, sweating, headaches, nausea, vomiting, diarrhoea or tremulousness. Apart from age, other risk factors for dysmenorrhea have been described, such as smoking, higher BMI, heavy menstrual flow, depression, stress, childlessness and

family history of painful menstruation.

A more severe and chronic condition that affects only around five per cent of women in the reproductive age, mostly diagnosed in the age between 25 and 35 years old, is called endometriosis⁽³⁾. Endometriosis is a chronic inflammatory disease in which endometrial tissue grows outside the uterus, causing severe pelvic pain during the menses and can lead to infertility⁽⁴⁾. Severe abdominal pain, pain during sexual intercourse, difficulty with defecation or urination are the most frequently reported symptoms of endometriosis.

Pycnogenol®, a standardised, patented French maritime pine bark extract is a natural antioxidant and anti-inflammatory food supplement and has been found to have beneficial properties for women who experience pain during menstruation⁽⁵⁻¹¹⁾. In addition, it has been established in several studies that Pycnogenol® has potent anti-inflammatory properties⁽¹²⁻¹⁴⁾



and does not affect hormone levels⁽¹⁵⁾.

Pycnogenol® relieves menstrual discomfort and symptoms of endometriosis.

To date, more than 450 women took part in seven dif-

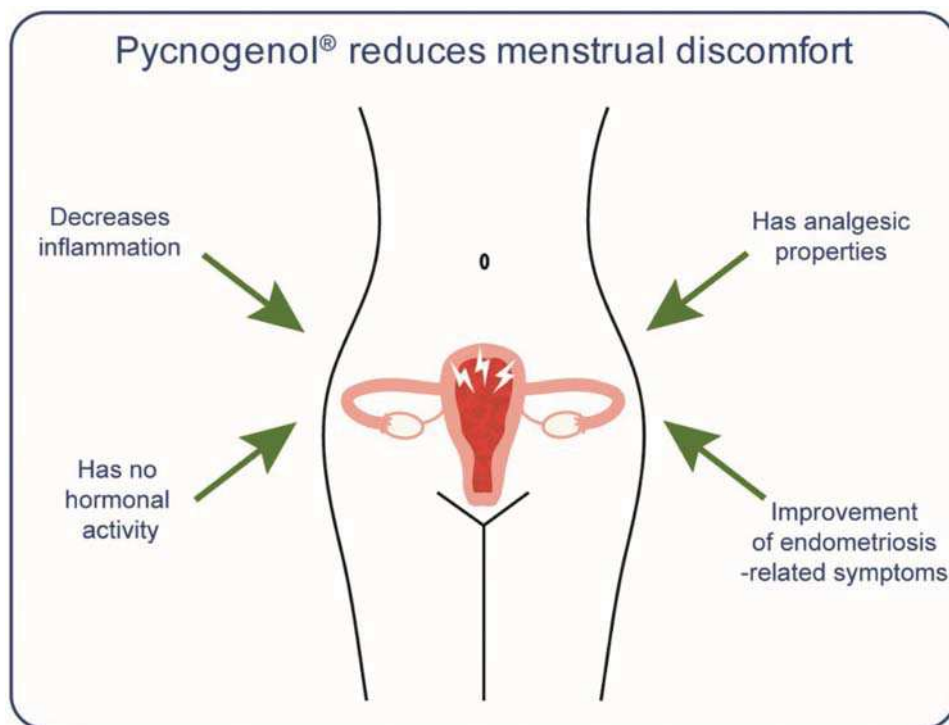
ferent studies in which the effect of Pycnogenol® on menstrual pain and endometriosis-related symptoms was specifically investigated⁽⁵⁻¹¹⁾. In an initial pilot trial, 39 women with either endometriosis, severe menstrual pain or other chronic pelvic pain took Pycnogenol® starting seven days before menstruation⁽⁶⁾. Abdominal pain, menstrual cramps and tenderness were found to be improved in 66-100 per cent of the women. These first observations have led to more research on Pycnogenol®'s beneficial effects on menstrual discomfort.

In a second study, 47 women with dysmenorrhea were supplemented with Pycnogenol® for two menstrual cycles⁽⁶⁾. The scores for abdominal pain were reduced by 41 per cent compared to pain scores before supplementation. In addition, the number of days with abdominal pain were reduced from an average of 3.9 before taking the supplement to 3.3 days with Pycnogenol® and from 3.5 to 2.8 days regarding back pain. The use of

analgesics was reduced by 60 per cent after the two cycles of Pycnogenol® supplementation.

A double-blind, randomised, placebo-controlled multi-center study from 2008 showed that Pycnogenol® supplementation has the ability to significantly reduce abdominal pain in women with dysmenorrhea⁽⁷⁾. The women took Pycnogenol® for two menstrual cycles, during which they needed significantly less analgesic medication compared to the baseline period of two cycles before supplementation (-46 per cent) and less than placebo controls (-28 per cent). In a fifth cycle, during which the supplementation was discontinued, the effects of Pycnogenol® continued, while the placebo patients needed more analgesic medication again. The number of days on which analgesics were required was also significantly reduced with Pycnogenol® from 2.1 days to 1.3 days and barely changed in the placebo group, from 1.9 to 1.7 days.

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Health, another study showed that concomitant Pycnogenol® supplementation for three months increases the efficacy of low-dose oral contraceptives to improve severely cramping menstrual pain by 78 per cent compared to the contraceptive-only group which reported an amelioration of 25 per cent on the pain score (8). In the Pycnogenol® group, 27 per cent of the women became pain-free, whereas no subject of the control group reported complete disappearance of pain after the supplementation.

In a study with 58 women after endometriosis-related surgery, the efficacy of Pycnogenol® supplementation was compared to a commonly used six-month therapy for endometriosis – monthly injection of Leuprorelin, which blocks the production of estrogens (9). The observed symptoms were menstrual and pelvic pain, pelvic tenderness and induration of the pelvic area. Both Pycnogenol® and Leuprorelin reduced the symptom scores, with the standard medication being more efficient after six months. However, upon oblige discontinuation of the medication, the recurrence of

symptoms was very severe, whereas Pycnogenol® supplementation kept the endometriosis symptoms at a low level, the pain score being reduced by 33 per cent in a natural way. In addition, it was found that Pycnogenol® does not affect estrogen levels. This finding was confirmed in another double-blind, placebo-controlled study, where no influence of Pycnogenol® on any hormonal activities that could interfere with the natural menstrual cycle was observed (10).

Another three-month study on endometriosis patients investigated beneficial effects of the combination of oral contraceptives with Pycnogenol® regarding endometriosis-related pain (11). In this context, it was observed that Pycnogenol®, added to oral contraceptive intake further significantly reduces pain. Fifty six per cent participants, taking Pycnogenol® in combination with an oral contraceptive reported a complete resolution of menstruation-related pain, whereas no patients in the oral contraceptive-only group was completely pain-free by the end of the study.

The molecular mechanism

behind this synergistic effect of oral contraceptives and Pycnogenol® was investigated in a study with 122 endometriosis patients (12). The study results suggest that Pycnogenol® supplementation supports the effect of the pill in blocking the NF-κB cascade by reducing the expression of different inflammatory-induced genes in the endometrium of endometriosis patients.

Pycnogenol® controls inflammation

Inflammatory processes were found to be a key mechanism in dysmenorrhea and endometriosis (16,17). During menstruation, the tissue lining of the uterine cavity is replaced, leading to wound healing and inflammation. In several studies, it was shown that Pycnogenol® has potent anti-inflammatory activities (12-14). Already after five days of daily intake, a study reported that Pycnogenol® significantly prevented the up-regulation of the pro-inflammatory enzymes 5-LOX and COX-2 (12). In another ex-vivo study, plasma samples of volunteers after intake of Pycnogenol® showed to statistically significantly inhibit

NF-κB activation by 15.5 per cent and matrix metalloproteinase 9 (MMP-9) release by 25 per cent, two important regulators in the inflammation process (13). In a similar study, statistically significant inhibition of inflammatory molecules COX-1 and COX-2 was observed after intake of 300 mg Pycnogenol® (14).

Pycnogenol® French maritime pine bark extract is a safe, natural and evidence-based solution to help with symptoms of painful menstruation and endometriosis without adverse effects.

For a complete list of scientific research and for further information, please visit www.pycnogenol.com.

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