

# Endometriosis & Diet



Endometriosis is a chronic condition affecting millions of women worldwide, characterized by the presence of endometrial tissue outside the uterus. This can lead to severe pain, infertility, and other health issues. Common symptoms include severe pelvic pain, menstrual cramps, genital pain during or after sex, fertility complications, fatigue, low back pain, bloating, constipation, and diarrhea.

Endometriosis is an estrogen-dependent disease. Research shows that women with endometriosis have higher levels of estrogen, which can affect the endometrial tissue outside of the uterus and lead to inflammation and pain.

## Understanding Endometriosis and Diet

Recent studies highlight the potential role of diet in managing endometriosis, suggesting that what you eat could influence your symptoms and overall well-being.

### Key Dietary Recommendations

**Increase Whole, Plant-Based Foods:** Consuming a diet rich in plant-based foods, such as fruits, vegetables, whole grains, legumes, nuts, and seeds, can reduce estrogen levels. Research shows that eating less fat and more dietary fiber, which you can only find in plants, can decrease estrogen levels by as much as 25%. Plant-based diets are typically lower in fat and higher in fiber than diets that include animal products. In addition, the weight loss that typically results from a low-fat, plant-based diet also contributes to reductions in circulating estrogen concentrations.

Research shows that vitamin C, which is found in citrus as well as other fruits and vegetables, and vitamin E, which is found in nuts and seeds and certain fruits and vegetables may also reduce endometriosis symptoms.

**Avoid Red and Processed Meat:** Red meat (such as beef, pork, and lamb) and processed meats (including sausages, hot dogs, and deli meats) are known for their high saturated fat content. Research suggests that these fats can influence estrogen production, leading to

elevated levels in the body. The Nurses' Health Study II found that women consuming more than two servings of red meat per day had a 56% greater risk of developing endometriosis compared to those consuming less than one serving per week.

**Focus on Food with Omega-3 Fatty Acids:** Omega-3s are known for their powerful anti-inflammatory properties, which can be particularly beneficial for managing the symptoms associated with endometriosis. Omega-3 fatty acids can be found in flaxseeds, chia seeds, and walnuts.

**Include Seaweed:** Seaweed, rich in unique fibers and phytonutrients, shows promise for managing endometriosis through its potential anti-estrogen properties. Preliminary research demonstrated that adding seaweed to the diet significantly alleviated endometriosis symptoms, lengthened menstrual cycles, and reduced period duration, alongside a dramatic decrease in estrogen levels.

**Avoiding alcohol:** Some evidence suggests that greater alcohol intake may be associated with increased risk of endometriosis. The suspected mechanism is alcohol's tendency to increase both oxidative stress and estrogen levels.

## Take Home Message

Embracing a diet rich in whole, plant-based foods not only promises to lower estrogen levels but also to alleviate the inflammation and pain characteristic of endometriosis. Incorporating seaweed and foods high in omega-3 fatty acids, like flaxseeds, chia seeds, can offer additional relief by balancing estrogen levels and supporting overall reproductive health. Conversely, reducing the intake of red and processed meats, and limiting alcohol consumption, may decrease the risk and severity of endometriosis symptoms. This emerging evidence underscores the power of dietary choices in influencing the course of endometriosis, offering a beacon of hope for those seeking to manage their symptoms through natural, lifestyle-based strategies.

## References

Barnard ND, Holtz DN, Schmidt N, Kolipaka S, Hata E, Sutton M, Znayenko-Miller T, Hazen ND, Cobb C, Kahleova H. Nutrition in the prevention and treatment of endometriosis: A review. *Front Nutr.* 2023 Feb 17;10:1089891.

Barnard N. Diet and sex-hormone binding globulin, dysmenorrhea, and premenstrual symptoms. *Obstet Gynecol.* (2000) 95:245–50.

Harris HR, Eke AC, Chavarro JE, Missmer SA. Fruit and vegetable consumption and risk of endometriosis. *Hum Reprod.* (2018) 33:715–27.

Yamamoto A, Harris HR, Vitonis AF, Chavarro JE, Missmer SA. A prospective cohort study of meat and fish consumption and endometriosis risk. *Am J Obstet Gynecol.* 2018 Aug;219(2):178.e1-178.e10.

Missmer SA, Chavarro JE, Malspeis S, Bertone-Johnson ER, Hornstein MD, Spiegelman D, et al. A prospective study of dietary fat consumption and endometriosis risk. *Hum Reprod.* 2010;25(6):1528-1535.

Papier K, Hartman L, Tong TYN, Key TJ, Knuppel A. Higher Meat Intake Is Associated with Higher Inflammatory Markers, Mostly Due to Adiposity: Results from UK Biobank. *J Nutr.* 2022 Jan 11;152(1):183-189.

Cai X, Liu M, Zhang B, Zhao SJ, Jiang SW. Phytoestrogens for the Management of Endometriosis: Findings and Issues. *Pharmaceuticals (Basel).* 2021 Jun 14;14(6):569.

Tsuchiya M, Miura T, Hanaoka T, Iwasaki M, Sasaki H, Tanaka T, Nakao H, Katoh T, Ikenoue T, Kabuto M, Tsugane S. Effect of Soy Isoflavones on Endometriosis: Interaction With Estrogen Receptor 2 Gene Polymorphism. *Epidemiology.* 2007;18(3):402-408.

Teas J, Hurley TG, Hebert JR, Franke AA, Sepkovic DW, Kurzer MS. Dietary seaweed modifies estrogen and phytoestrogen metabolism in healthy postmenopausal women. *J Nutr.* 2009 May;139(5):939-44.

Parazzini F, Cipriani S, Bravi F, et al. A metaanalysis on alcohol consumption and risk of endometriosis. *Am J Obstet Gynecol.* 2013;209(2):106.e1-10.