

# ENDOMETRIOSIS

**Endometriosis** occurs in about 10% of reproductive-age women. Endometriosis: presence and growth of endometrial tissue in locations outside of the uterus. It is estrogen-dependent inflammatory disease that can affect women at any stage of life. Symptoms can range from minimal to severe. Endometriosis can be seen on the ovaries, fallopian tubes, bowel, bladder, peritoneal tissue, any structure in the abdominal cavity, and rarely may occur at other sites such as the lungs! Endometriosis responds to cyclic hormonal changes, proliferating and shedding outside of the uterus; the bleeding is accompanied by inflammation caused by irritation of local tissue. Recurrent inflammation can cause scarring that causes pain and dysfunction of other affected sites.

**Possible risk factors:** first period age < age 12, cycle length <26 d, periods >7 days, D&C history, <2 pregnancies

## Contributing Causes:

- Inflammation
- Changes estrogen metabolism and progesterone sensitivity in the tissues of the endometrial lining
- Hormone imbalance: too much estrogen, not enough progesterone or progesterone resistance
- Environmental exposures: endocrine and immunologic disruption Dioxins, POPs, and PCBs
- Gut health
- Stress/Trauma
- Genetic predisposition

## Possible dietary factors:

- Magnesium deficiency
- High fat intake, especially heated fats, fried foods
- Essential fatty acid deficiency
- Excess dietary caffeine
- Excess alcohol

## Symptoms:

- Pain: abdominal, back, pelvic pain, pain on intercourse, pain with bowel movement or peeing, pelvic burning, aching not limited to periods, referred pain in distant sites, especially shoulder blades, pain with periods
- PMS
- heavy menstrual bleeding
- Other symptoms: constipation, swollen abdomen, gas, depression, insomnia, fatigue, bleeding after bowel movements or after intercourse

## Conventional treatments:

- Laparoscopy with removal of endometriosis when possible
- OCPs
- Progestins
- Natazia - ocp
- Oriahnn - elagolix/E2/norethindrone BID x 24 mo
- Elagolix - 150 qd x 24 mo or 200 x 6 mo (dysparenia)
- Mirena
- Hysterectomy +/- removing ovaries/tubes

## Functional and integrative medicine approach:

- Improve immunity
- Reduce inflammation
- Decrease relative excess of estrogen/Improve progesterone resistance
- Reduce oxidative damage
- Support detoxification
- Manage pain: pain is typically the worst symptom of this condition

## Diet and lifestyle:

- Dietary fatty acids: increase omega-3 fatty acids and reduce trans fats.
  - Trans-fat increases the risk of EM
  - Intake of omega-3 fatty acids may be protective
- Avoid caffeine and alcohol
- Gluten free diet may decrease endometriosis pain.
- Mediterranean style/plant-based diet to reduce inflammation.
- Increase dietary fiber for gut health and support healthy estrogen levels.
- Enhance detoxification with Brassicaceae, sulphur-containing vegetables, phytochemicals, phytoestrogen-containing plants.
- low histamine diet: full diet is very restrictive, consider lower histamine, avoid:
  - alcohol
  - caffeine
  - aged foods like aged meats
  - leftovers
  - processed deli meats

## Other possible risk-reducing factors include:

- Full-term pregnancies
- Breastfeeding
- Regular exercise (timing and type are important)

## Botanicals and supplements:

- Vitex can increase progesterone
- **Melatonin:** reduce endometriosis-associated pelvic pain and improve sleep quality, 10mg/d
- **N-acetylcysteine (NAC):** decrease in cyst diameter and reduction in pain, and a complete disappearance in cysts, 600 mg TID
- **Fish oil:** 2-3 gm/d
- **Pine Bark:** cramps
- **Pycnogenol:** slowly reduces pain and reduces endometrioma size, 16 mg/d, can take up to a year to see full benefit
- Devil's claw: alleviate pain and inflammation associated with arthritis, headache, and back pain; treatment improved endometriosis symptoms & QOL after 8 weeks, 400 mg 4x/day.
- Herbs and supplements that reduce inflammation, support healthy immune response, and support healthy hormone balance:
  - curcumin: **Turmeric Pain PM (Gaia)** curcumin and Jamaican dogwood
  - adaptogens (eleuthero)

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- medicinal mushrooms (reishi, shiitake, cordyceps, maitake).
- Limited evidence on resveratrol and fish oil.
- Immune support: astragalus, andrographis, probiotics, berberine.
- Hormone balance: B6, DIM or I3C, milk thistle, artichoke, lipoic acid
- Consider Vitamin D

### **Treatment summary:**

- Diet - Mediterranean diet, high fiber, good quality fat
- Gut health
- Support detoxification: dec E2, increase poop
- Reduce environmental exposures
- **Supplements:**
  - **Start with, NAC, Reishi, curcumin, fish oil for 3 mo, if not better then add pycnogenol or pine bark**
    - **Estrogen - add DIM or I3C, B6**
    - **PCOS or IR - add berberine**

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