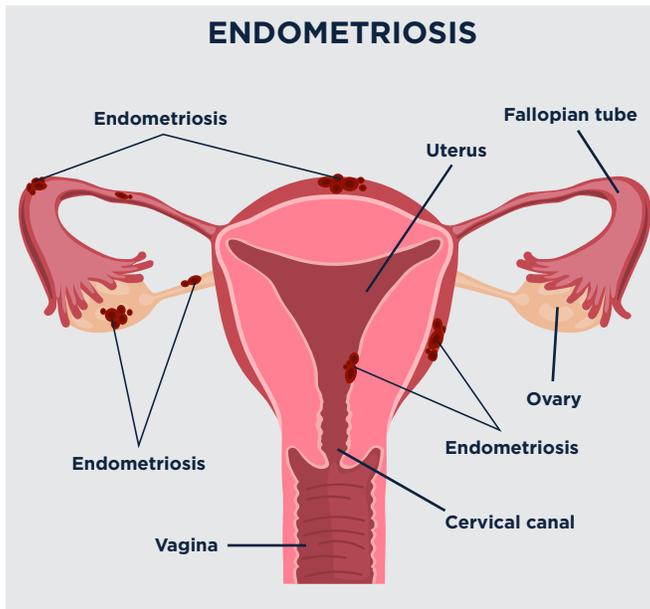


# Endometriosis Protocol

Clinical Protocol to Support Patients with Endometriosis\*



## The Pathophysiology of Endometriosis

Endometriosis is a disorder that may begin as early as a girl's first menses and last through menopause. An estimated 1 in 10 reproductive-age individuals have this condition. The most significant risk factor is retrograde menstruation, with a greater number of lifetime ovulatory cycles and additional family history risk factors.<sup>1-3</sup>

Endometriosis involves an estrogen-dependent inflammatory process of the pelvic tissues leading to chronic pelvic pain and infertility, although some individuals are asymptomatic. Endometrial-like tissue is found outside of the uterine cavity that can lead to symptoms such as superficial peritoneal lesions, ovarian cysts, deep penetrating nodules, or extra-pelvic lesions. Endometriosis may impact areas in the pelvis and beyond, including the bladder, ureter, bowel, deep pelvic nerves, anterior abdominal wall, diaphragm, lungs, pericardium, and brain.<sup>1-3</sup>

Endometriosis symptoms may also include painful periods, painful intercourse, and heavy bleeding. Additional symptoms, such as adverse digestive symptoms, may also develop, depending on the tissues and organs that are affected. An individual's quality of life is often significantly impacted, and depression and fatigue are highly associated with endometriosis.<sup>1-3</sup>

Diagnosis may involve physical examination and clinical discussion of family history and symptoms, imaging, and laparoscopic surgery. Treatment may involve hormonal therapy, management of symptoms and pain, fertility treatment when applicable, and surgery.<sup>1-3</sup>

This clinical protocol is designed to support normal estrogen metabolism and a healthy inflammatory response for patients with endometriosis through evidence-based diet, lifestyle, and nutritional interventions.\*

## Diagnostic Biomarkers and Clinical Indicators of Endometriosis

Conduct a thorough physical examination, complete family history, and medical symptom questionnaire. The following imaging may be warranted:

- Laparoscopic surgery with histological verification<sup>3</sup>
- Transvaginal ultrasound<sup>2</sup>
- MRI<sup>2</sup>

## Therapeutic Diet and Nutritional Considerations

- Recommend patients consume cruciferous vegetables, as certain phytochemicals in these plants have been shown to support a healthy estrogen metabolism, a healthy inflammatory response, and endometriosis.<sup>4-7</sup>
  - Broccoli, Brussels sprouts, cabbage, bok choy, kale, cauliflower, collard greens
- Propose a gluten-free trial period of 4 to 8 weeks, as it has been shown to promote a healthy response to pain and inflammation for patients with endometriosis.<sup>8</sup>
- Instruct patients to adopt an anti-inflammatory, antioxidant-rich eating pattern. Inflammation and oxidative stress both play roles in endometriosis.<sup>5,9-11</sup>
- Counsel patients to increase consumption of omega-3 fatty acids and reduce the intake of trans-fats.<sup>11,12</sup>
- Advise patients to reduce red meat consumption, as it is associated with endometriosis risk.<sup>13</sup>

## Lifestyle Interventions

- Recommend an exercise routine, as exercise has been shown to support a healthy response to pain in individuals with endometriosis.<sup>14</sup>
- Suggest integrating a yoga practice, which has been identified as beneficial for pelvic pain.<sup>15</sup>
- Advise patients on stress relief management practices, as chronic stress is greatly associated with endometriosis and may exacerbate symptoms.<sup>16</sup>
- Instruct patients on reducing or eliminating exposure to bisphenol A (BPA) and other endocrine disruptors with estrogenic properties.<sup>17,18</sup>



## Supplement Protocol

Primary Support:



### Progest-Avail™

|                           |  |
|---------------------------|--|
| <b>Dose</b>               | Apply 1 mL (20 mg USP progesterone) 1 to 2 times per day on days 14 through 27 of the menstrual cycle  |
| <b>Duration</b>           | Ongoing as needed  |
| <b>Formula Highlights</b> | Progest-Avail™ is a natural topical progesterone serum providing 20 mg of bioidentical progesterone in every 1 mL serving. It consists of a super-micronized form of natural progesterone in a proprietary triglyceride carrier that facilitates better absorption than conventional creams. This serum also contains a natural sugar-based complex (dimethyl isosorbide) that increases progesterone solubility, facilitates proper penetration through the skin at an efficient rate, and helps preserve the potency of the progesterone. Progest-Avail™ does not contain parabens, mineral oil, or petroleum. |

### GLA 240

|                           |  |
|---------------------------|--|
| <b>Dose</b>               | Take 2 softgels per day with a meal  |
| <b>Duration</b>           | Ongoing as needed  |
| <b>Formula Highlights</b> | GLA 240 mg softgels supply gamma-linolenic acid from the oil of borage seeds. GLA is essential for smooth and healthy skin and female hormonal balance.* |

### OmegAvail™ Hi-Po

|                           |   |
|---------------------------|---|
| <b>Dose</b>               | Take 2 softgels per day with a meal   |
| <b>Duration</b>           | Ongoing as needed   |
| <b>Formula Highlights</b> | OmegAvail™ Hi-Po is our highest potency omega-3 product, providing 800 mg of eicosapentaenoic acid (EPA) and 800 mg of docosahexaenoic acid (DHA) per 2-softgel serving (1,600 mg total). |

### BroccoProtect™

|                           |  |
|---------------------------|--|
| <b>Dose</b>               | 4 capsules per day   |
| <b>Duration</b>           | Ongoing as needed  |
| <b>Formula Highlights</b> | BroccoProtect™ is a synergistic blend of specially cultivated broccoli seed extract (as TrueBroc®) and mustard seed powder ( <i>Sinapis alba</i> ) concentrate providing sulforaphane glucosinolate and myrosinase enzyme, respectively, for maximal conversion to broccoli's beneficial compound, sulforaphane. TrueBroc® is standardized to contain 13% glucoraphanin and the mustard seed extract yields 24 mg of sulforaphane and 5 enzyme units of myrosinase to optimize sulforaphane bioavailability and ensure its conversion.* BroccoProtect™ is designed to help support detoxification pathways, antioxidant status, healthy estrogen metabolism, and cellular health.* |

\*If significantly elevated temperature, flank pain, and/or severe burning on urination develop, or if an infection persists past several days, then a full medical evaluation should be performed and antibiotic therapy should be considered.

For a list of references cited in this document, please visit:

<https://www.designsforhealth.com/api/library-assets/literature-reference---endometriosis-protocol-references>

Dosing recommendations are given for typical use based on an average 150 pound healthy adult. Health-care practitioners are encouraged to use clinical judgement with case-specific dosing based on intended goals, subject body weight, medical history, and concomitant medication and supplement usage. Any product containing botanical substances has the potential for causing individual sensitivities, appropriate monitoring, including liver function tests (LFT) is recommended.

For considerations regarding herb-drug and nutrient-drug interactions, please refer to reliable, evidence-based resources such as the Natural Medicine Database or Stargrove MB, Treasure J, McKee DL. *Herb, Nutrient, and Drug Interactions: Clinical Implications and Therapeutic Strategies*. St. Louis, MO: Mosby-Elsevier; 2008.

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\*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.