



The Anti- Inflammatory and Elimination Diet for Adults Living with Endometriosis

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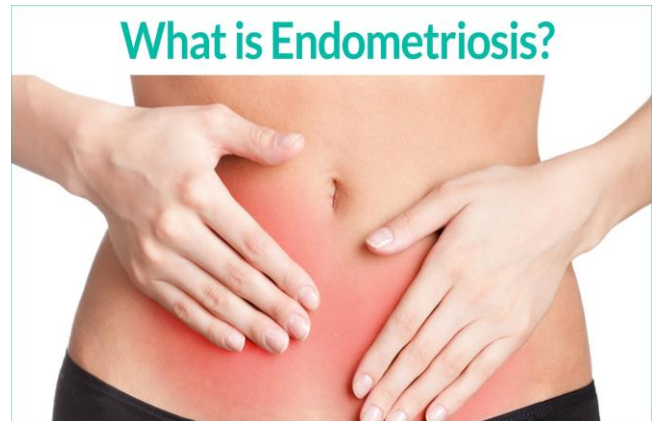
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Overview of Endometriosis

Endometriosis is a painful, chronic disease where tissue that normally lines the uterus grows outside of the uterus. Such areas of growth include the abdomen on the ovaries and fallopian tube as well as the bladder, bowel, vagina, cervix, and the area between the vagina and rectum. The misplaced tissue builds up, breaks down, and sheds like the tissue that lines the uterus during menstrual cycles. However, the misplaced tissue has no way of exiting the body which results in internal bleeding, inflammation, bowel problems, infertility, scar tissue formation, and adhesions.

Symptoms

- Infertility
- Fatigue
- Painful urination before periods
- Painful bowel movements during periods
- Pain with sex
- Pain before and during periods due to severe cramping, heavy menstrual flow, and periods lasting > 7 days
- Diarrhea
- Constipation
- Nausea



Prevalence

About 1 in 10 women in the U.S. have endometriosis. About 176 million women worldwide have endometriosis. Symptoms usually occur during reproductive age (12-60 years old) but most women are often undiagnosed.

Source: endofound.org

Overview of Endometriosis

Causes

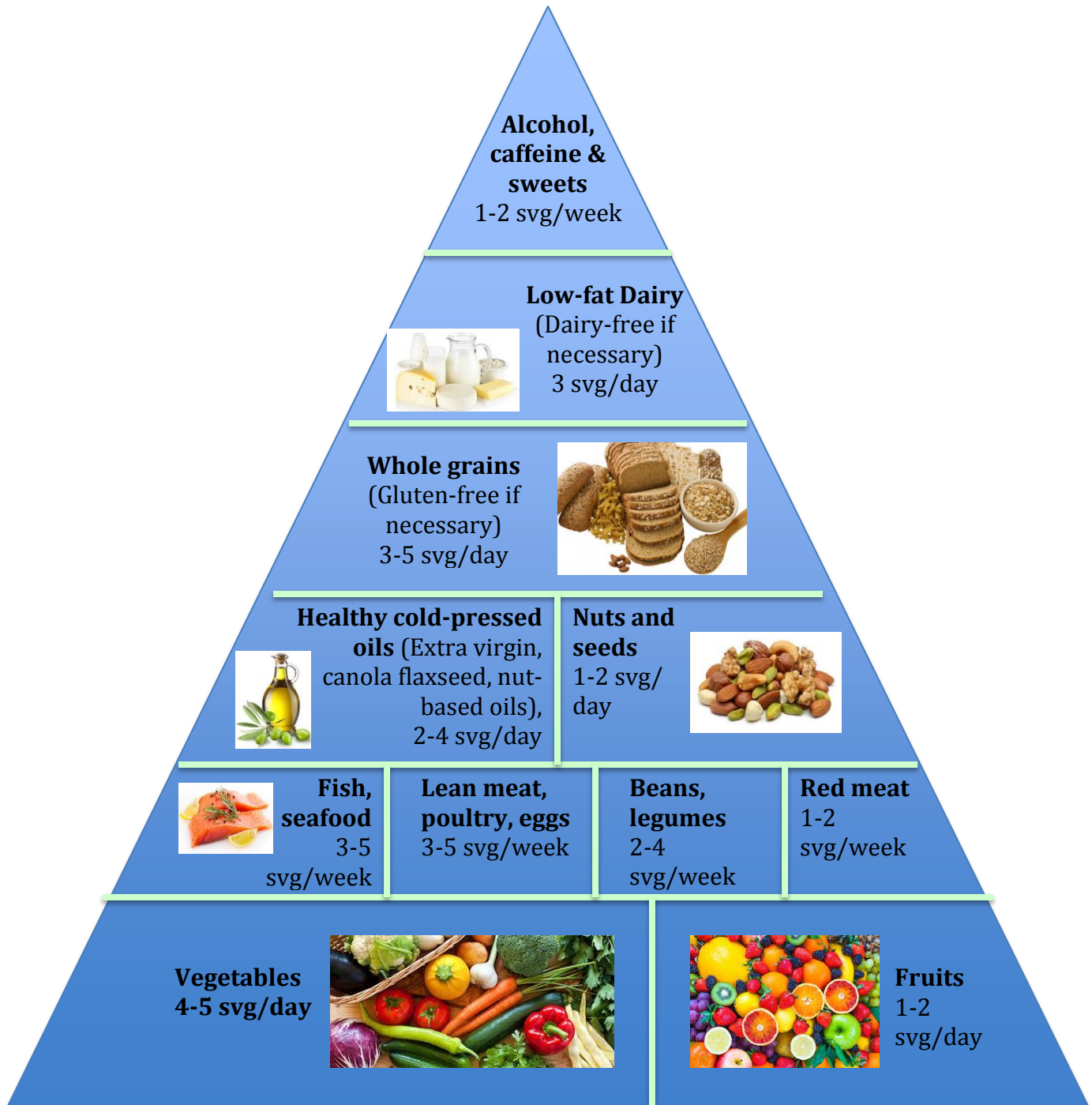
There is no identified cause for endometriosis. Theories related to genetics suggest that it may be carried in genes so some families may be more predisposed to it than others. Another theory has found it to be present at fetal development and activated during puberty. A retrograde menstruation theory suggests that menstrual tissue can back up into the fallopian tube, implant in the abdomen, and grow which can lead to the development of endometriosis. Lastly, there has been a link between the body's inflammatory response and endometriosis but the mechanism behind this theory is not well understood.



Treatment

To confirm diagnosis, a laparoscopy is performed which will show the location, size, and extent of the growths. The gold standard for treatment is laparoscopic excision surgery to remove the growths. However, there is no cure for endometriosis.

What should your diet be composed of?



Vegetables:

- **How much?** 4-5 servings per day minimum (one serving = 2 cups salad greens, ½ cup vegetables cooked)
- **Healthy Sources:** Dark leafy greens (spinach, collard greens, kale, Swiss card), cruciferous vegetables (broccoli, cabbage, Brussels sprouts, bok choy, cauliflower), carrots, beets, onion, peas, squashes, washed raw salad greens
- **Why?** Vegetables are rich in flavonoids and carotenoids with antioxidant and anti-inflammatory properties. Aim for a plate that's colorful in vegetables to get a wide variety of vitamins, including A, E, and C as studies have shown these vitamins to be lower in endometriosis patients.

Fruits:

- **How much?** 1-2 servings per day (one serving = 1 medium size piece of fruit, ½ cup chopped fruit, ¼ cup dried fruit)
- **Healthy Sources:** Raspberries, blueberries, strawberries, peaches, nectarines, oranges, pink grapefruit, red grapes, plums, pomegranates, blackberries, cherries, apples, and pears all have lower glycemic index.
- **Why?** Fruits are rich in flavonoids and carotenoids with antioxidant and anti-inflammatory properties. Aim for variety in color to get a wide variety of nutrients, including A, E, and C.
When possible, choose organic for reduced pesticide residue that have been associated with hormone imbalances.

Fish and Seafood

- **How much?** 3-5 servings per week (one serving = 4 oz. of fish or seafood)
- **Healthy Sources:** Wild Alaskan salmon, herring, sardines, and black cod
- **Why?** Fish is rich in Omega-3s which are anti-inflammatory. Choose higher fat, deep-sea fish as they have greater intakes of Omega-3s.

Lean Meat, Poultry, Eggs

- **How much?** 3-5 servings per week (one serving = 3 oz. of poultry or skinless meat)
- **Healthy Sources:** High quality skinless poultry, turkey, grass-fed lean meats, free-range eggs
- **Why?** Lean meats are lower in saturated fat to better control cholesterol levels.

Beans and Legumes

- **How much?** 2-4 servings per week (one serving = ½ cup cooked beans or legumes)
- **Healthy Sources:** Black beans, chickpeas, black-eyed peas, and lentils
- **Why?** Beans are rich in folic acid, magnesium, and potassium and soluble fiber. They are a low-glycemic-load foods to stabilize blood sugars.

Red Meat

- **How much?** 1-2 servings per week (one serving = 3 oz. of cooked meat)
- **Sources:** Beef, steak, pork, veal
- **Why?** Limit these types of foods as red meats are shown to be pro-inflammatory and cause hormone imbalances. Choose grass-fed or organic meats.

Cold-Pressed Vegetable Oils

- **How much?** 2-4 servings a day (one serving= 1 teaspoon of oil)
- **Healthy Sources:** Extra virgin olive oil, vegetable oil, canola oil, flaxseed oils, nut-based oils
- **Why?** Oils are high in Omega-3s and antioxidants which are anti-inflammatory. They are also rich in monounsaturated fats that raise good cholesterol (HDLs) and lower bad cholesterol (LDLs). Expelled cold-pressed oil is best since it is not chemically treated and heated at lower temperatures to extract the oil. When cooking with oil, use lower temperatures as higher temperatures increases the production of trans fat.
- **Where to use?** Drizzle cold-pressed oils on salads, over vegetables for roasting or sautéing, or even popcorn! Mix organic butter with a cold-pressed oil for a healthier spread.

Nuts and Seeds

- **How much? 1-2 servings a day** (one serving = 2 walnuts, 1 tablespoon of flaxseed, 1 oz. of avocado, 1 tbsp. of peanut butter)
- **Healthy Sources:** Almonds, walnuts, ground flaxseed, pecans, hemp seeds, avocado, natural peanut butter, chia seeds
- **Why?** Nuts and seeds are high in Omega-3s which are anti-inflammatory. They are excellent sources of B-vitamins in addition to phosphorous.

Whole Grains

- **How much?** 3-5 servings a day (one serving = ½ cup cooked grains)
- **Healthy Sources:** Brown rice, basmati rice, wild rice, buckwheat, quinoa, steel-cut oats, gluten-free noodles or pasta
- **Why?** Whole grains have added B-vitamins with added fiber to promote a healthy digestive tract and reduce spikes in blood sugar that promote inflammation.

Low-fat Dairy or Dairy Alternatives

- **How much?** 3 servings a day (1 ounce of cheese, 8 ounce serving of milk/dairy-free milk, 1 cup of yogurt)
- **Healthy Sources:** Low-fat cheeses (Swiss, mozzarella, parmesan), fat-free yogurt, cottage cheese, skim or 1% milk. You can find dairy-free options of these foods as healthy dairy alternatives.
- **Why?** Vitamin D has been shown to reduce pro-inflammatory cytokines that contribute to possible inflammation associated with endometriosis. Choose organic dairy products to reduce the amount of hormones added to your foods.

Alcohol, Caffeine, Processed Foods, and Sweets

- **How much?** 1-2 servings per week, sparingly
- **Sources:** Processed foods, fried foods, fast-food, caffeine in sodas or sugary sweetened beverages, alcohol
- **Why?** These types of foods have no nutritional value and added sugar which can prevent other vital nutrients from being absorbed. Caffeine and alcohol have been thought to impair ovarian function, aggravate PMS symptoms, and negatively affect infertility. Sweets are pro-inflammatory and should be limited.
- **What to eat instead?** Healthier sweet substitutes can include small servings of dark chocolate, dried fruit, frozen yogurt, and fruit sorbet.

Water

- **How much?** 8-8 oz. glasses of water, half a gallon (64 oz.)
- **Sources:** Pure water, or drinks that are mostly water, such as tea or sparkling water with lemon.
- **Why?** Water is vital for overall proper functioning of the body and removes metabolic waste products.

Organic or not?

Research has shown that pesticides like organochlorines, organophosphates, bipyridines have been associated with decreased antioxidant capacity of fruits and vegetables. In addition, organochlorines have been shown to negatively affect hormonal pathways.



vs.



Foods on the “Dirty Dozen” list have the greatest amount of pesticides while foods on the “Clean Fifteen” list have the least amount. In order to consume a wide variety of fruits and vegetables for optimal nutrition, choose organic produce when purchasing fruits and vegetables from the Dirty Dozen list to reduce pesticide exposure.

Hidden Hormones in Your Food

Dairy and meat products have added hormones that may be linked with hormone imbalances in patients with endometriosis. However, the nutrients from these foods, such as protein, Vitamin D, calcium, and iron are important components of a well-balanced diet.

To reduce the amount of hormones in your foods, choose organic milk or dairy-free milk and grass-fed beef.

<p>What constitutes organic? Below are the USDA organic regulations:</p>
<p>Managed without antibiotics, added growth hormones, mammalian or avian byproducts, or other prohibited feed ingredients (e.g., urea, manure, or arsenic compounds)</p>
<p>Livestock that is allowed year-round access to the outdoors for grazing</p>
<p>Raised on certified organic land</p>
<p>Fed 100% certified organic feed</p>
<p>Managed in a way that conserves natural resources and biodiversity</p>



GRASS-FED BEEF vs. GRAIN-FED/GRASS-FINISHED BEEF

What's the Difference?

Cattle roam free on a pasture & eat only grass

GRASS-FED

Cattle confined in feed lots & eat mostly grain

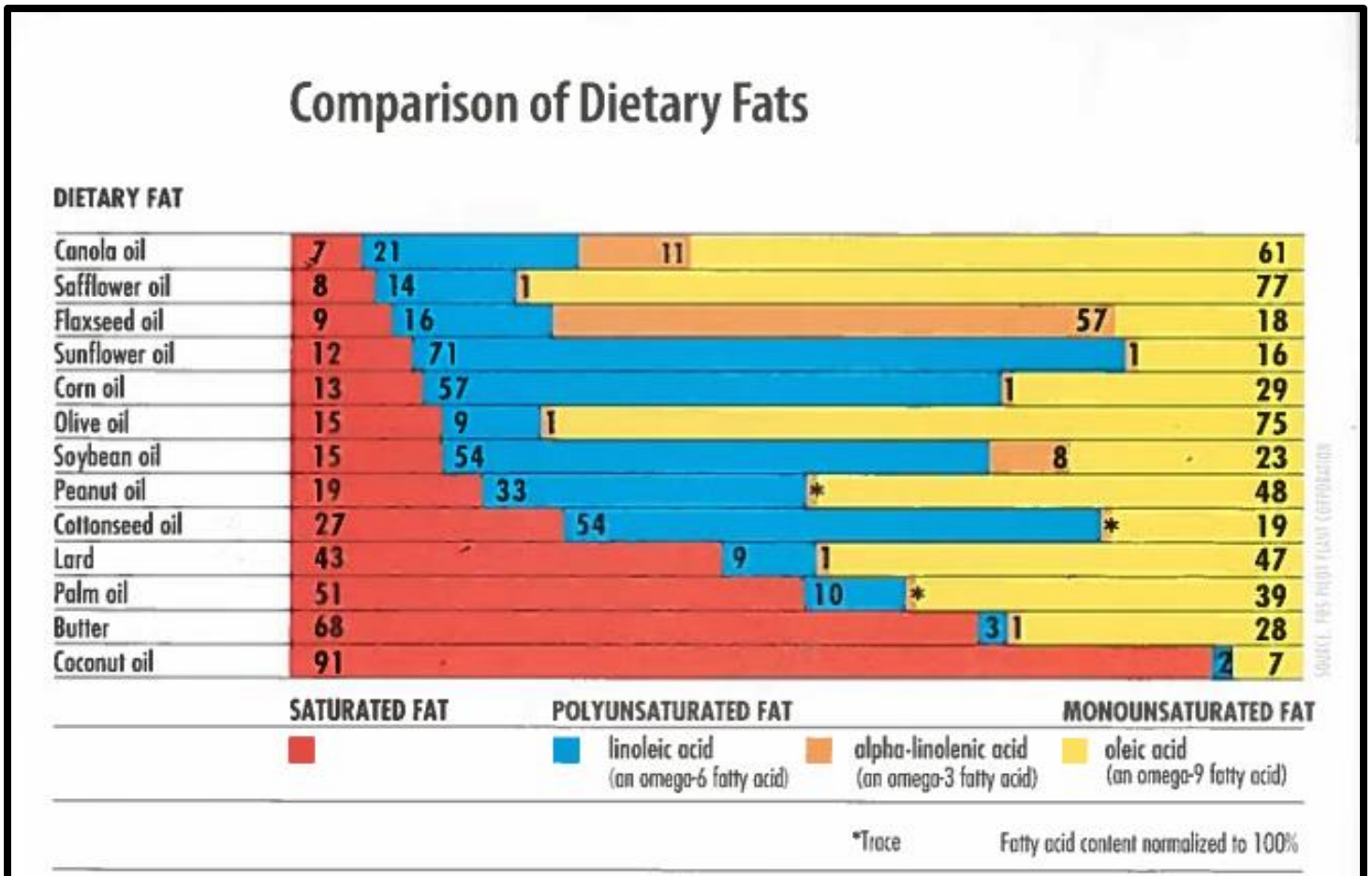
GRAIN-FED/GRASS-FINISHED

- > Leaner and juicier, thanks to higher moisture content
- > Rich in omega-3 fatty acids, vitamin B6 & beta-carotene
- > As little as 140 calories per serving
- > Lower cholesterol

NUTRITION

- > Greasy, not juicy
- > "Fattened up" on a variety of grain or corn by-products
- > Regular consumption not recommended as part of a healthy diet
- > Higher cholesterol

Which fats are the most anti-inflammatory?

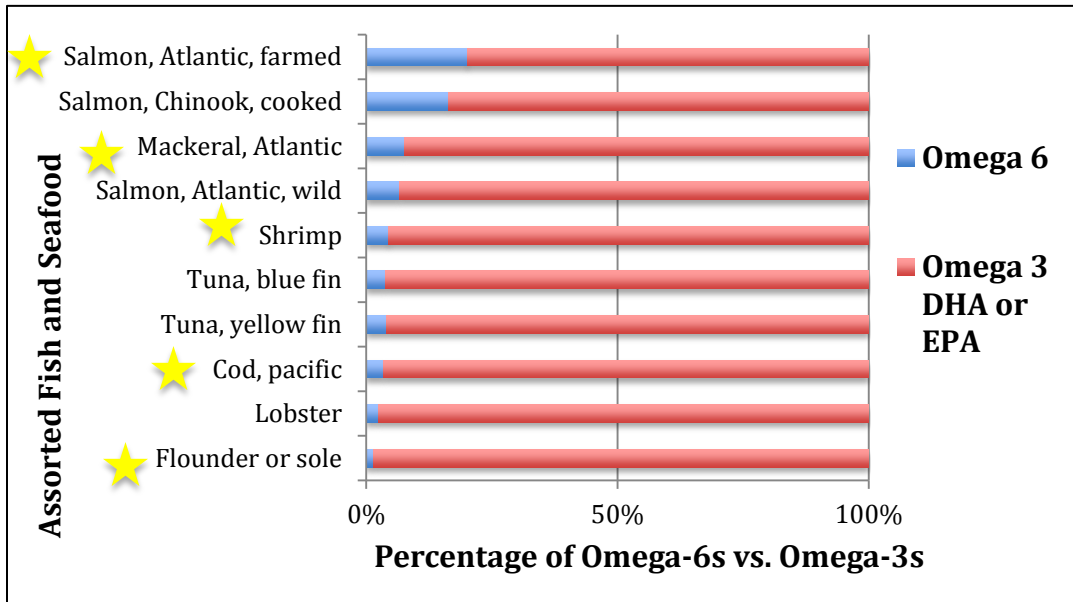


Flaxseed has the highest Omega-3 concentration followed by canola and soybean oil.

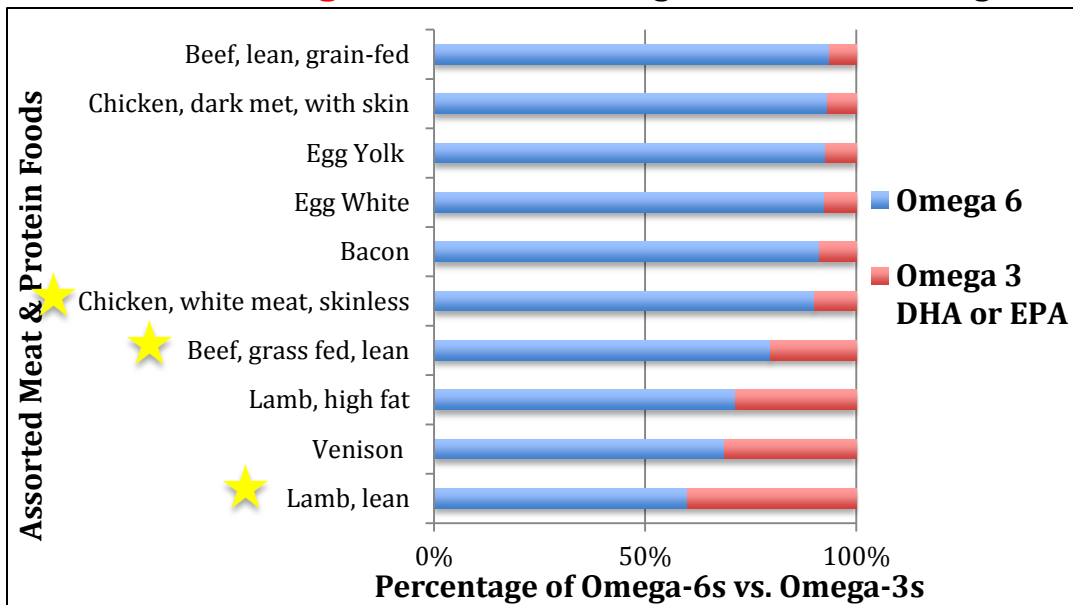
The goal is to consume and use fats that have lower **saturated fat** and a higher **Omega-3** to **Omega-6** ratio to reduce rates of inflammation associated with endometriosis.

Omegas by the Mouthful

Check out the foods listed below to see which are the best sources of Omega-3s to help reduce inflammation.



Foods with a **longer red line** have larger amounts of Omega-3s.



Fish has a greater amount of Omega-3s compared to other sources of meat. The goal is to consume a variety of seafood and add in lean lamb, grass-fed beef, and skinless white meat chicken as good protein sources with larger amounts of Omega-3s and lower fat intake.

Most expensive

Omega 3 Supplementation

Past research has shown that Omega 3 supplementation in the form of EPA & DHA can improve rates of fertility and reduce oxidative stress as a cause of inflammation.

Omega-3 supplementation is increasingly being prescribed to patients with endometriosis. Discuss with your doctor if this is right for you.

Type of Supplement	Cost	Recommended Dosage/Serving Size	Servings per Container	Total size of bottle	EPA:DHA (mg)	Potential Side Effects	Advantages	Disadvantages
NatureMade Fish Oil <u>Least expensive</u>	\$7.62	2 softgels/day	100 softgels	1000 mg	500 *in 2 softgels	Belching, bad breath, heartburn, nausea, loose stools	Cheapest option, enteric coating helps to reduce the fishy odor and aftertaste, no artificial flavors or gluten	Lowest amount of EPA:DHA
ProOmega Capsule	\$23.75	2 softgels/day	30 softgels	1000 mg	650:450 *in 2 softgels	Taste changes, belching, dyspepsia, diarrhea with higher doses	Available in different flavors for increased taste tolerance, 15% discount and free shipping with Web ID: 84097, lowest cost	Low EPA:DHA, increase up to 6 softgels/day which requires higher intake of pills
ProOmega Liquid	\$35.66	1 teaspoon/day	48 tsp.	4 oz.	1450:1060 *in 1 tsp.	Taste changes, belching, dyspepsia, diarrhea with higher doses	Easy to swallow, available in different flavors for increased taste tolerance, 15% discount and free shipping with Web ID: 84097	Convenience in taking liquid vs. pill form
Lovaza <u>Most expensive</u>	\$78.96	4 softgels/day	30 softgels	1000 mg	1860:1500 *in 4 softgels	Taste changes, belching, dyspepsia, diarrhea with higher doses	Highest intake of DHA compared to other fish oil supplements	Need a prescription from MD, higher cost compared to other fish oil supplements, higher quantity of softgels/day
OmegaVia	\$34.60	3 softgels/day	20 softgels	1105 mg	2340:780 *in 3 softgels	Taste changes, belching, dyspepsia, diarrhea with higher doses	Burp-free natural enteric coating, no odor, purified to remove mercury,	Not FDA approved, higher EPA to DHA ratio

A feasibility study was conducted on different fish oil supplements to compare their costs and benefits. **The ProOmega liquid form** is the best deal as it will last the longest for a total of 48 days compared to the others that range from 20-30 days.

Elimination Diet and Endometriosis

To help manage painful symptoms like abdominal pain, nausea, and cramping that can be associated with endometriosis, certain foods can be eliminated from the diet that worsen these symptoms. Research has shown that a gluten free diet can lead to dramatic pelvic pain reduction in women suffering with endometriosis. These may include:

1. Dairy contains a sugar called lactose that may be difficult for some women to breakdown and digest, causing cramping, diarrhea, and pain.

2. Gluten is a protein found in grains and wheat products which has been shown to cause diarrhea, abdominal pain, and bloating in women with gluten sensitivity. Gluten can cause malabsorption of vitamins and minerals that regulate hormones. Gluten, also can cause inflammation and induce autoimmune reactions that attack hormones and hormone receptors.

3. Added sugars in processed foods, such as packaged or prepared foods, soft drinks and baked goods, can increase inflammation.



If you experience any of these symptoms, you may be a great candidate for the Endo Elimination Diet. Discuss with your doctor and dietitian to make the best plan for your health moving forward.

The Endo Elimination Diet

The goal of an elimination diet is to remove all foods that could be linked to making your symptoms worse. There are two phases in an elimination diet.

1. **Phase 1- Elimination:** Over the course of 2 weeks, you will remove all dairy, gluten, and added sugars and consume only the foods approved on pages 4-5.
2. **Phase 2 – Challenge:** Over the course of 4 weeks, you will slowly reintroduce these foods back into the diet. You will track your symptoms and discuss them with your doctor and dietitian to see which foods your body can tolerate.

How to be successful at following this diet?

1. Learn more about endometriosis before starting the Endo Diet.

These books have been recommended by the Endometriosis Association as great reads to provide a more comprehensive overview of endometriosis.

- Endometriosis: The Complete Reference for Taking Charge of Your Health by Mary Lou Ballweg and Endometriosis Association
- Endometriosis: A Key to Healing Through Nutrition by Dian Shepperson Mills, M.A., and Michael Vernon, Ph.D, HCLD
- The Endometriosis Sourcebook: The Definitive Guide to Current Treatment Options, the Latest Research, Common Myths about the Disease, and Coping Strategies-both Physical and Emotional by Mary Lou Ballweg and Endometriosis Association

Additional reference:

- The Anti-Inflammation Diet and Recipe Book by Jessica K. Black

2. Record your current symptoms before starting the elimination diet. This is an essential step to help you identify what changes occur in your symptoms when eliminating foods from your diet. Have a notebook handy to write the symptoms. Keep this notebook with you at all times when eating to record how you react to certain foods, before, during, and after the elimination diet. This will help the doctor and dietitian better determine what the cause of your GI symptoms.

- **Plan your meals.** Following the Endo Elimination diet can be difficult because you are eliminating foods that might be staples in your everyday diet. Therefore, plan your meals ahead of time to ensure that you can successfully follow the diet. Go grocery shopping and purchase foods on the approved foods list before starting your diet. Try out these food blogs for fresh, innovative Endo diet recipes to get you started!
 - Foodie 4 Healing
 - ENDODIET
 - Jessica Murnane

- **Jump right in!** Follow the elimination phase for 2 weeks eating only the foods from the approved food lists. **(See Endometriosis Food and Symptom Diary at the end of this booklet)**



Dairy Foods

Dairy Foods to Avoid	Dairy-free Alternatives to Consume
Cow's milk	Almond, coconut, soy, lactose-free milks
Yogurt (all types)	Lactose-free yogurt
Cheese (all types)	Dairy-free cheese, nutritional yeast
Cottage cheese	Dairy-free cottage cheese
Sour cream	Soy sour cream, nutty sour cream
Butter	Olive oil, vegetable oil, canola oil, nut oils, etc.
Margarine	Dairy-free margarine
Condensed milk	Cream of coconut, dairy free milk powder
Cream cheese	Coconut cream, low fat soy cream
Coffee creamers	Dairy-free coffee creamers, soy creamers
Ice cream	Dairy-free ice cream
Whipped cream	Low fat soy cream
Chocolate	Baking chips and bars from dairy-free brands like Enjoy Life Foods, Pascha Organic Chocolate, Taza Chocolate, Scharffen Berger Baking Chocolate

For more recipes, grocery lists, and helpful tips on going dairy-free, visit godairyfree.org!

Gluten foods to Avoid on Elimination Diet

Foods with Gluten to Avoid	Gluten-free Foods to Consume
Pastas (raviolis, dumplings, couscous, gnocchi)	Gluten-free pasta
Noodles (ramen, udon, soba, chow mein, egg noodles)	Rice, cassava, quinoa, millet, arrowroot, amaranth, teff, amaranth
Breads and pasteries (croissants, pita, naan, bagels, flatbreads, cornbread, potato bread, muffins, donuts, rolls)	Gluten-free breads, bagels, muffins, rolls
Crackers (pretzels, goldfish, graham crackers)	Gluten-free crackers
Baked goods (cakes, cookies, pie crusts, brownies)	Gluten-free pastries
Cereal and granola (corn flakes, rice puffs, oats)	Gluten-free cereals
Breakfast foods (pancakes, waffles, French toast, crepes, biscuits)	Gluten-free pancakes, waffles
Oatmeal	Gluten-free oats
Breading and coating mixes (panko breadcrumbs)	Breading made with ground up flax or chia seeds
Croutons (stuffing, dressings)	Dressings made with flax or chia seeds
Sauces and gravies (soy sauce, cream sauces)	Sauces made with rice, soy, corn, potato, or bean flours
Flour tortillas	Gluten-free tortillas
Beer, malt beverages	Gluten-free beers
Wheat flour as an ingredient, "wheat free" does not mean gluten free	Nut flours, gluten-free flours (rice, soy, corn, potato, bean)

For more recipes, grocery lists, and tips to eating gluten-free,
visit glutenfreeliving.com!

Watch out for Hidden Gluten!

Some foods may contain **hidden gluten**.

These may include:

- Energy bars/granola bars – some bars may contain wheat as an ingredient, and most use oats that are not gluten-free
- French fries – be careful of batter containing wheat flour or cross-contamination from fryers
- Potato chips – some potato chip seasonings may contain malt vinegar or wheat starch
- Processed lunch meats
- Candy and candy bars
- Soup – pay special attention to cream-based soups, which have flour as a thickener. Many soups also contain barley
- Multi-grain or “artisan” tortilla chips or tortillas that are not entirely corn-based may contain a wheat-based ingredient
- Salad dressings and marinades – may contain malt vinegar, soy sauce, flour
- Brown rice syrup – may be made with barley enzymes
- Meat substitutes made with seitan (wheat gluten) such as vegetarian burgers, vegetarian sausage, imitation bacon, imitation seafood (Note: tofu is gluten-free, but be cautious of soy sauce marinades and cross-contamination when eating out, especially when the tofu is fried)
- Soy sauce
- Self-basting poultry
- Pre-seasoned meats
- Cheesecake filling – some recipes include wheat flour
- Eggs served at restaurants – some restaurants put pancake batter in their scrambled eggs and omelets, but on their own, eggs are naturally gluten-free.

Watch out for Hidden Gluten!

Some products may contain **hidden gluten**. These include:

- Lipstick, lipgloss, lipbalm
- Herb or nutritional supplements
- Drugs, over-the-counter medications
- Vitamin and mineral supplements
- Lotions, moisturizers
- Shampoos
- Toothpaste

The following ingredients are often code for gluten:

- Avena sativa Cyclodextrin
- Dextrin
- Fermented grain extract
- Hordeum distichon
- Hordeum vulgare
- Hydrolysate
- Hydrolyzed malt extract
- Hydrolyzed vegetable protein
- Maltodextrin Phytosphingosine extract
- Samino peptide complex
- Secale cereale
- Triticum aestivum
- Triticum vulgare
- Tocopherol/vitamin E Yeast extract
- Natural flavoring, caramel color
- Brown rice syrup
- Modified food starch
- Hydrolyzed vegetable protein (HVP)
- Hydrolyzed soy protein

Read Your Labels for Gluten!

To make sure you are not accidentally ingesting gluten, be sure to read the label on all your food products before purchasing.

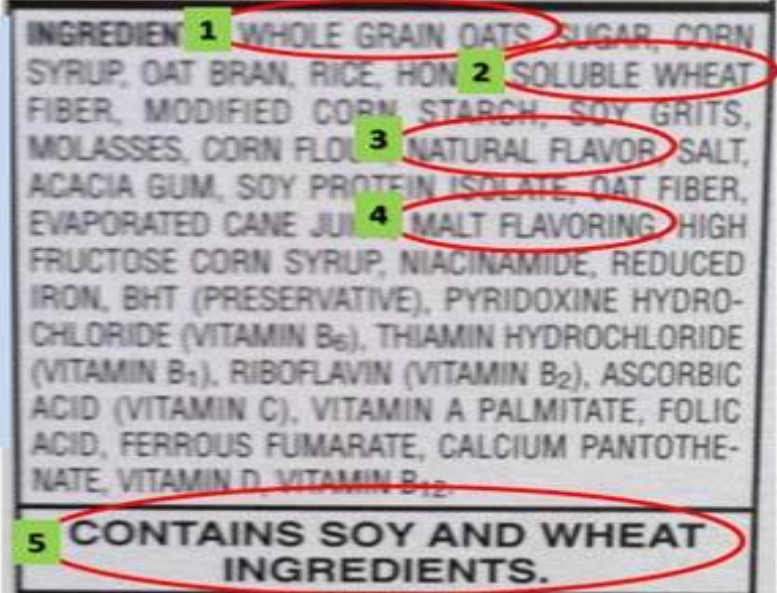
Look for the words “wheat, barley, rye and oats” to identify if a food contains gluten.

If in doubt about a food, go without consuming it just to be sure!

Common Key Words for Gluten Free Label Reading

Sample Label:

1. Not gf oats
2. Wheat listed in ingredients
3. Something could be hidden here
4. Malt =barley
5. Other area where companies have the option to list allergens



INGREDIENTS 1 WHOLE GRAIN OATS, SUGAR, CORN SYRUP, OAT BRAN, RICE, HONEY 2 SOLUBLE WHEAT FIBER, MODIFIED CORN STARCH, SOY GRITS, MOLASSES, CORN FLOUR 3 NATURAL FLAVOR, SALT, ACACIA GUM, SOY PROTEIN ISOLATE, OAT FIBER, EVAPORATED CANE JUICE 4 MALT FLAVORING, HIGH FRUCTOSE CORN SYRUP, NIACINAMIDE, REDUCED IRON, BHT (PRESERVATIVE), PYRIDOXINE HYDROCHLORIDE (VITAMIN B₆), THIAMIN HYDROCHLORIDE (VITAMIN B₁), RIBOFLAVIN (VITAMIN B₂), ASCORBIC ACID (VITAMIN C), VITAMIN A PALMITATE, FOLIC ACID, FERROUS FUMARATE, CALCIUM PANTOTHENATE, VITAMIN D, VITAMIN B₁₂.

5 CONTAINS SOY AND WHEAT INGREDIENTS.

Added Sugar Foods to Avoid on Elimination Diet

Added Sugar Foods to Avoid	Foods to Consume
Regular soft drinks, energy drinks, and sports drinks	Unsweetened tea, Crystal Light, water
Juice, fruit punch	100% freshly squeezed juice
Candy, cakes, cookies, pies, cobblers	Sugar-free cookies, candy
Sweet rolls, pastries, and donuts	Sugar-free rolls
Dairy desserts, such as ice cream	Frozen yogurt, plain Greek yogurt

Reading the label on processed foods can help identify added sugars. The different names for sugar include:

- Anhydrous dextrose
- Brown sugar
- Confectioner's powdered sugar
- Corn syrup
- Dextrose
- Fructose
- High-fructose corn syrup (HFCS)
- Honey
- Invert sugar
- Lactose
- Malt syrup
- Maltose
- Maple syrup
- Molasses
- Nectars (e.g., peach nectar, pear nectar)
- Raw sugar
- Sucrose
- White granulated sugar



The Challenge Phase

During this phase, you will introduce one challenge food at a time. Start with small portions on the first day of the challenge and record any symptoms in your notebook. The challenge phase will last 3-4 weeks, depending on the severity of your symptoms.

Week 1: Dairy Challenge

- Day 1: Smaller portions
- Day 2: Larger portions
 - Record in journal

Week 2: Gluten Challenge

- Day 1: Smaller portions
- Day 2: Larger portions
 - Record in journal

Week 3: Added Sugar Challenge

- Day 1: Smaller portions
- Day 2: Larger portions
 - Record in journal

Now what?

Interpret your results: Look at the symptoms recorded in your journal. What foods triggered your symptoms and in what amounts? What foods were safe for you to eat? Discuss with your dietitian about how to evaluate your symptoms moving forward.

Change your diet: Avoid foods that trigger your symptoms during the challenge phases. Focus on consuming a well balanced diet without triggering your symptoms.



The Basics of a Healthy, Well Balanced Diet

Since there is no specified cause for endometriosis, it is important to adhere to a diet that focuses on variety and balance for optimal nutrition. The focus should be on consuming a diet balanced in all five groups, including fruits, vegetables, dairy, protein, and grains.

- Aim for half of your plate to be filled with a variety of colorful fruits and vegetables. These are high in vitamins and antioxidants to reduce inflammation.
- Make half your grains whole grains.
- Vary your protein by adding in plant-based protein like beans and legumes to lower red meat consumption.
- Look for food and drink sources that are lower in saturated fat, sodium, and added sugars.
- Choose low-fat or fat-free dairy.
- Incorporate healthy fats like Omega 3's found in avocado, fish, nuts, and olive oil to reduce inflammation.
- Get active at least 30 minutes a day which has been shown to reduce ovarian stimulation and estrogen production.



References/Websites

Endometriosis (2016). Retrieved from:
www.endometriosisassn.org/endo.html

What is Endometriosis? (2016). Retrieved from:
www.endofound.org/endometriosis

Endometriosis Foundation for America (2016). About Endometriosis. Retrieved from: www.endofound.org

EndoOnline (2015). What is it? Retrieved from:
www.endometriosisassn.org/

MyPlate (2016). Retrieved from: www.choosemyplate.gov/MyPlate

MyPyramid (2005). Retrieved from:
www.cnpp.usda.gov/mypyramid

Saint Louis University Center for Endometriosis
www.endometriosis-excision.com

Gluten and Endometriosis (2016). Retrieved from:
www.glutenfreesociety.org/gluten-and-endometriosis-is-there-a-connection/

Sources of Gluten (2016). Retrieved from:
www.celiac.org/live-gluten-free/glutenfreediet/sources-of-gluten/

Organic.org (2016). "The Dirty Dozen." Retrieved from:
www.organic.org/articles/showarticle/article-214

USDA. (2016). Organic Agriculture. Retrieved from:
www.usda.gov/wps/portal/usda/usdahome?contentidonly=true&contentid=organic-agriculture.html

References/ Websites

Weil, Dr (2015). Anti-Inflammatory Diet. Retrieved from:
www.drweil.com/drw/u/ART02012/anti-inflammatory-diet

Halpern, G., Schor, E., & Kopelman, A. (2015). Nutritional aspects related to endometriosis. *Revista Da Associação Médica Brasileira (1992)*, 61(6), 519-523. doi:10.1590/1806-9282.61.06.519

Marziali, M., Venza, M., Lazzaro, S., Lazzaro, A., Micossi, C., & Stolfi, V. M. Gluten-free diet: a new strategy for management of painful endometriosis related symptoms? *Minerva Chirurgica (2012)*, 67 (6), 499-504.

Parazzini, F., Viganò, P., Candiani, M., & Fedele, L. (2013). Diet and endometriosis risk: a literature review. *Reproductive Biomedicine Online*, 26(4), 323-336. doi:10.1016/j.rbmo.2012.12.011

Qu X, Li S, Wang Z, Li M. Maternal insulin resistance causes oxidative stress and mitochondrial dysfunction in mouse oocytes (2012). *Human Reproduction* 27 (7):2130-2145. doi: 10.1093/humrep/des137

Shepperson, D., Vernon, M (2002). *A Key to Healing and Fertility through Nutrition.*

A special thank you to Anne Cameron MS, RDN for her dedication and assistance in development of this booklet.

Endometriosis Food Intake Log

DAY / DATE	Morning Meal	Snack	Midday Meal	Snack	Evening Meal	Snack
Symptom Diary						
Notes and Symptoms						
Endo Challenge Food						
Instructions:	During the Elimination Phase, only consume foods on the approved Elimination Diet list. Follow this diet for 2 week. During the challenge phase, you will reintroduce different foods with gluten or lactose to track your symptoms. Introduce only one food at a time. Start with small portions on the first day. Record symptoms. On the second day, have a larger portion. WAIT AT LEAST THREE DAYS BETWEEN CHALLENGES.					