

Elimination Diet for Eosinophilic Esophagitis

What is Eosinophilic Esophagitis (EoE)?

Eosinophillic esophagitis (EoE) is a chronic inflammatory disorder of the esophagus. It occurs when a large amount of white blood cells, called 'eosinophils' are present in the esophagus. Eosinophils can cause inflammation and are typically not found in the esophagus.

Treatment options include the use of medication like steroids (administered either with an inhaler or in a liquid form) and Proton pump inhibitors (acid suppressors) or dietary management (6 food elimination diet).

Symptoms of EoE may include:

In Adults

- Difficult or painful swallowing
- Food impaction (food getting stuck in the esophagus)
- Reflux that does not respond to medication

In Children

- Trouble swallowing
- Nausea and vomiting
- Abdominal pain

What role does diet have with EoE?

Food and environmental allergies are common among individuals with EoE. It is thought that adverse reactions to food may actually trigger EoE symptoms. For that reason, it is helpful to identify any potential food triggers.

Those who complete an elimination diet may experience relief of their symptoms, if the food(s) that are causing the eosinophils to travel to the esophagus are identified and removed from the diet.

Elimination Diet

The Elimination diet is used to determine if one or more of the 6 most common food allergens are a trigger for symptoms. The diet can be very effective but is a long process (~42 weeks) and requires multiple endoscopies. It will also result in life-long dietary changes. However, it addresses the source of the problem, is generally less expensive, and as no adverse effects when compared to other options.

General Guidelines

- 1. The Elimination diet requires you avoid the top 6 food allergens (milk, wheat, soy, eggs, peanut/tree nuts, and fish/shellfish) for a period of 6-8 weeks.
- 2. After the elimination phase, an endoscopy is performed and biopsies are obtained to assess the response to the diet.
- 3. If biopsies confirm remission (<15 eos/HPF), eliminated foods are reintroduced to the diet 1-2 groups at

- a time for a 6 week period each.
- 4. An endoscopy is done after each reintroduction. All food groups will be reintroduced as there may be more than one trigger food. Challenge foods should be eaten daily during the reintroduction period.

The Detailed Process:

EoE diagnosed by EGD and biopsy



Failed trial of Proton Pump Inhibitor (or elimination diet preferred)



Elimination of the 6 most common food allergens



EGD after 6-8 weeks



Introduce 1-2 least likely offending food groups



EGD after 6 weeks



Introduce 1-2 additional food groups



EGD after 6 weeks



Introduce milk products



EGD after 6 weeks



Introduce wheat products



EGD after 6 weeks

Allergen foods and ingredients that should be AVOIDED while on the diet:

Food Group	Foods to Avoid	Ingredients to Avoid
Milk/Dairy	Butter Buttermilk Caramel Cheese Cottage Cheese Cream Cream cheese Curds Custard Dry milk Evaporated milk Frozen Yogurt Ghee Half and Half Ice Cream Milk (cow, goat, sheep) Milk chocolate Nougat Pudding Powdered milk Semi-Sweet chocolate Sour Cream Sweetened Condensed milk Yogurt	Butter flavoring Caramel flavoring Casein Casein hydrolysate Caseinates (all forms) Diacetyl Lactalbumin Lactalbumin phosphate Lactoferrin Lactose Lactulose Milk protein hydrolysate Rennent Casein Tagatose Whey (all forms) Whey protein hydrolysate
Wheat	Bread Bread crumbs Bulgur Cereals Crackers Couscous Farina Farro Flour tortillas Kamut Pasta	Durum Einkorn Flour (all purpose, bread, cake, enriched, graham, high gluten, instant, pastry, selfrising, soft wheat, stone ground, whole wheat) Hydrolyzed wheat protein Seitan Semolina Spelt Sprouted wheat

	Pizza crust	Triticale
	Puffed wheat	Vital wheat gluten
	Fulled Wileat	_
		Wheat (bran, berries, durum, germ,
		gluten, grass, malt, sprouts, starch)
Soy	Edamame	Soy
30 y	Miso	Soy fiber
	Natto	Soy flour
	Soya	Soy protein (concentrate, hydrolyzed,
	Soy products (cheese, ice cream, milk,	isolate)
	and yogurt)	Textured vegetable protein (TVP)
	Soybean	rextared regetable protein (1717)
	Soy nuts	
	Soy sauce	
	Tamari	
	Tempeh	
	Tofu	
	Quorn	
Eggs	Eggs (dried, powdered, whole)	Albumin (albumen)
	Egg whites/substitute	Globulin
	Eggnog	Livetin
	Egg sauces (Bearnaise/Hollandaise sauce)	Lysozyme
	Mayonnaise	Words starting with "ovo" or "ova"
	Meringue	Vitellin
Dear-st /Treesest	All types of nuts	Marzipan/almond paste
Peanut/Treenut	All types of nut milks	Nut extracts (almond extract)
	All types of nut spreads	Nut flours (almond, peanut)
	Artificial nuts	Nut paste
	Lychee	Nut pieces
	Pesto	Peanut oil (cold pressed, expeller
	7 6310	pressed, or extruded peanut oil)
		·
_	All types of fish	Peanut protein hydrolysate Bouillabaisse
Fish/Shellfish	1 ''	
	Barnacle	Caesar dressing
	Caviar	Fish oil/fish oil supplements
	Clams, mussels	Fish sauce
	Crab	Fish stock/sauce
	Crawfish	Seafood flavoring
	Krill	Surimi
	Lobster	Worcestershire sauce
	Octopus	
	Oysters	
	Scallops	
	Shrimp, prawns	
	Snails (escargot)	
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Squid (calamari)	

^{*}All FDA-regulated manufactured food products that contain a "major food allergen" (milk, wheat, soy, egg, peanuts/ tree nuts, and fish/ shellfish) as an ingredient are required by law to list that allergen on the food label.

Enlist the help of a Registered Dietitian

If it is determined that a 6 food elimination diet would be beneficial to you, consulting a Registered Dietitian (RD) who specializes in gastrointestinal nutrition can increase the likelihood of your success. A dietitian can help to ensure adequate nutrition is maintained while on the diet and can help with label reading and meal planning.

What CAN I eat on an elimination diet?

- Chicken
- Beef
- Pork
- Turkey
- Game Meats
- Lamb
- Beans (except soy)
- Split peas
- Lentils
- Legumes

- Rice (brown, white, wild)
- Potatoes (white, red, sweet)
- Quinoa
- Millet
- Amaranth
- Buckwheat
- Gluten-free oats
- All fresh, frozen, canned and dried fruits
- All fresh, frozen, and canned vegetables

- Seeds (sunflower, pumpkin, sesame)
- Oils (avocado, olive, coconut, sunflower, canola)
- Dairy free milk (rice, coconut, oat, hemp, pea)
- Sweeteners
- Condiments (vinegar, spices)
- Beverages (water, coffee, tea, soda, sparkling water, juice

Allergen Friendly Brands

The following companies manufacture or sell products that may be suitable for a 6 food elimination diet:

Flours/Baking

- o **Arrowhead Mills:** Select products from the gluten-free product line.
- o **Bob's Red Mill:** Gluten free products, baking mixes, grains, and seeds.
- Cherry Brook Kitchen
- Cravings Place: Baking mixes free of the top 8 allergens.
- o King Arthur: Gluten free baking mixes.
- Namaste Foods: Baking mixes and pasta meals free of wheat, gluten, soy, dairy, and peanut/tree nuts.

Dairy substitutes

- o **Daiya:** Cheese, yogurt, and other products free of the top 8 allergens.
- Earth Balance: Vegan, gluten-free mayonnaise and margarine. This product line includes a soy-free and egg-free mayonnaise, as well as a soy-free and dairy-free margarine.
- So Delicious: Dairy free products (coconut and oat products only).
- o **Pacific Foods:** Dairy free beverages (hemp, rice, coconut products only).
- Soy-Free Vegenaise: Soy free and Egg free mayonnaise.
- o Ripple milk: Pea protein milk.

• Bread/Pasta/Cereals

- o **Food for Life:** Select from the gluten-free product line.
- BFree bread: Bread, rolls, and wraps that are free of soy, gluten, dairy, eggs, and nuts.
- Eden Foods: Grains and 100% buckwheat noodles.
- o **Ener-G:** Select from their gluten free and vegan line of products.

Snacks

- Enjoy Life Foods: Snack bars, cookies, granola, and chocolate free of the top 8 food allergens.
- Sun Butter: Seed spread that is gluten and peanut/tree nut free.
- o **88 acres:** Seed spreads, bars, and granola free from the top 8 allergens.

Frozen/quick meals

- Allergaroo: Ready-made microwavable pasta dishes free of wheat, milk, soy, egg, fish/shellfish, peanut/tree nut, and mustard.
- o **lan's Natural Foods:** Frozen meals and snacks free of wheat, gluten, milk, eggs, nuts, and soy.

Sample meal and snack ideas for an elimination diet:

Breakfast:

- Oatmeal or cream of rice cereal with fruit
- B-Free or Food for Life bread toasted with 2 tablespoons Sunbutter or jelly
- Cheerios (plain) or Rice Chex cereal with rice milk and ½ cup blueberries
- Banana Pancakes: Bisquick Gluten free Pancake Mix prepared with ½ mashed banana, and cook as directed. Top with pure maple syrup.
- Coconut milk yogurt topped with berries
- Smoothie: 1 cup fresh or frozen fruit, 1 cup rice or coconut milk, ½ cup coconut yogurt, 1 scoop brown rice protein powder (NutraBiotic)

Lunch and Dinner:

- "Rice Bowl": scoop of rice, grilled chicken, topped with lettuce, salsa, and guacamole. Add fresh lime juice and olive oil drizzle for dressing.
- Tacos with ground meat or beans and corn tortilla; top with lettuce, salsa, avocado, etc.
- Spaghetti made with gluten free pasta add ground beef or ground turkey for protein (or mushrooms if vegetarian)
- Stuffed peppers: Brown and cook thoroughly ground turkey or beef. Season with sea salt & pepper. Toss with equal amounts of cooked rice or quinoa. Stuff peppers and bake in covered casserole dish until peppers are soft.
- Homemade soup: chicken and rice, vegetable, chili, tomato, black bean soup, lentil
 soup
- "PB & J" sandwich use Sunbutter in place of peanut butter and a suitable allergen friendly bread option

Snacks

- Rice cake topped with Sunbutter
- Hummus or bean dips with veggies, rice crackers, or corn chips
- Guacamole or salsa with veggies, rice crackers, or corn chips
- Fresh fruit
- Vegetables
- Applesauce
- Homemade granola bars with gluten free oats and dried fruit
- Popcorn
- ½ sandwich with BFree or Food for Life rice bread with sliced chicken, lettuce and tomato slice.