



Eosinophilic Esophagitis in Children



When your child needs a hospital, everything matters.

Eosinophilic Esophagitis in the Primary Care Office

Eosinophilic Esophagitis (EoE) is an allergic, immune-mediated condition that causes inflammation of the esophagus and accumulation of white blood cells, called eosinophils, in the esophageal tissue. It is increasingly being recognized in children and is often caused by allergies, although its symptoms may mimic medically refractory gastroesophageal reflux (GER).

The condition was not recognized as a distinct clinical entity until the 1990s, with a diagnosis code not established until 2008. It affects at least four children per 10,000 in the United States and is increasingly being identified in adults as well.

Identifying Eosinophilic Esophagitis

In young children, symptoms often include vomiting, feeding difficulty and failure to thrive, while older children and adults are more likely to present with refractory GER symptoms, abdominal pain, dysphagia, recurrent vomiting and esophageal food impactions. The condition is more common among males, but females are increasingly being diagnosed as well. Children can be diagnosed at any age.

Symptoms	Associated Diagnoses or Symptoms
<ul style="list-style-type: none">• Dysphagia• Epigastric pain• Recurrent emesis• Food impactions• Feeding difficulty, failure to thrive, vomiting (<i>young children</i>)	<ul style="list-style-type: none">• Food or environmental allergies• Allergic rhinitis• Asthma• Eczema

EoE often results in abnormal whitish plaques from eosinophilic microabscesses, linear furrowing of the esophagus and loss of vascular markings. Mucosal changes can cause some of the above symptoms. Concentric ring formation and even esophageal strictures can be seen in some severe, long-term cases. As many as one-third of EoE sufferers may have an esophagus with a normal appearance, however, so diagnosis via endoscopy and biopsy is essential.

Making a Referral for Testing and Diagnosis

If a patient presents with persistent GER and treatment with acid blockade is ineffective at relieving symptoms, or if the patient is having the above described symptoms despite treatment, a referral to a pediatric gastroenterologist is appropriate. After evaluating the patient, endoscopy and esophageal biopsies are required for EoE diagnosis. Following a positive EoE diagnosis by a pediatric gastroenterologist, patients may be referred to an EoE specialist and an allergy/immunology specialist for further evaluation and to help guide further treatment.

Eosinophilic Esophagitis Treatment and Management

EoE is often a chronic or recurrent disease. The duration of treatment may differ according to the patient's symptom severity and specific allergies. Some medications may be able to be weaned or discontinued following relief of symptoms, while other treatments, such as specific food avoidance, may be lifelong requirements for EoE management. Follow-up endoscopies will likely be recommended to determine whether treatments have been effective.

Current treatment includes three strategies: protein pump inhibitors (PPI), swallowed topical steroids or elimination of one or more foods from the diet.

Medications: The specialist who diagnoses your patient will develop a treatment strategy that may include the use of topical steroids, proton-pump inhibitors or other medications. Currently, there are no medications specifically approved by the FDA for EoE treatment; several drugs that decrease eosinophil production or cause immunosuppression are currently being studied but are not yet recommended for EoE treatment.

A trial of proton pump inhibitor (PPI) therapy is no longer required before EoE diagnosis. Instead, PPI is recommended as an early therapy for EoE treatment. The steroid medications used most frequently include the fluticasone inhaler and budesonide respules. However, instead of inhaling fluticasone, patients are instructed not to use a spacer and to swallow the doses, or with budesonide, to mix it with a thickening agent to swallow.

Dietary Avoidance: Food elimination is empiric as results of allergy testing are not predictive of response to diet. Cow's milk is the most common trigger food. Other less-common food triggers include wheat, egg and soy.

Complete Elimination Diet: In rare or extreme cases, if EoE symptoms are severe or not responsive to medications or specific dietary avoidance, an elemental (hypoallergenic) diet may be recommended. The patient is put on an amino acid-based formula (all-liquid diet). After a period of about six to eight weeks, gradual reintroduction of food groups is attempted until the problem food(s) is (are) identified.

Please Note: With no test to show that one treatment option is clearly better for all patients and the need for long-term challenging treatments that impact health and quality of life, some experts have recommended that patient preference and shared-decision-making be used to plan EoE treatment.

Ongoing Care

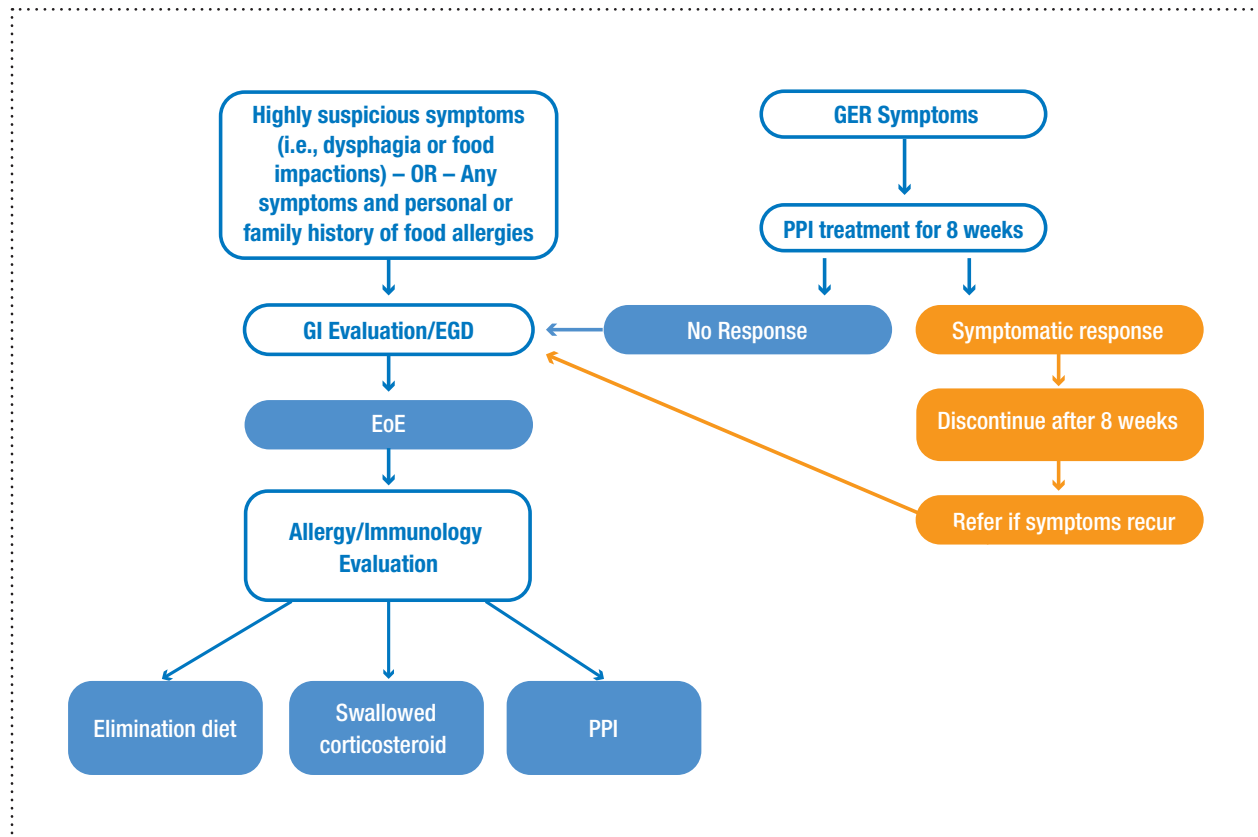
Once a patient has an official EoE diagnosis, it is likely to be a chronic condition. Limited diets can be very difficult to follow, so working with patient families to identify long-term, manageable dietary restrictions that still fulfill nutritional needs can be a crucial role of the pediatrician or a dietitian. In addition, pediatricians can monitor the symptoms of patients through regular check-ups.

If your patient experiences any of the following symptoms after being diagnosed with EoE, tell them to follow up with a specialist:

- Lack of improvement
- Worsening of symptoms
- Thrush (can be seen secondary to orally administered steroid medication use)
- Continued food avoidance behaviors
- Difficulty with special diet
- Decreased growth or slowed weight gain

For a food impaction, your patient should contact a gastroenterologist and seek care emergently.

Diagnosis and Management of EoE



Advanced Focus in Eosinophilic Esophagitis

The EoE Clinic at Nationwide Children's Hospital coordinates care for children and adolescents by pediatric specialists within Gastroenterology and Allergy/Immunology. In addition, patients can participate in ongoing research studies to improve evaluation and treatment of EoE.

Referrals and Consultations

Online: [NationwideChildrens.org/GI](https://www.nationwidechildrens.org/GI)

Phone: (614) 722-6200 or (877) 722-6220 | Fax: (614) 722-4000

Physician Direct Connect Line for 24-hour urgent physician consultations:
(614) 355-0221 or (877) 355-0221.

