



Eosinophilic Esophagitis

Eosinophilic Esophagitis is a chronic inflammatory condition of the esophagus, commonly known as EoE. The esophagus is a tube that carries food from your mouth to your stomach, aiding the digestive process. EoE is characterized by the infiltration of eosinophils, a type of white blood cell that typically helps your body fight infections. Eosinophils do not belong in your esophagus. However, eosinophils invade the esophagus in this condition, leading to inflammation and various symptoms.

What causes EoE?

The causes of eosinophilic esophagitis are not fully understood, and researchers continue to study the condition. Many medical scientists believe that an imbalance in the immune system causes EOE. The immune system protects our bodies from harmful bacteria and parasites while maintaining a healthy balance and not overreacting and damaging our tissues. In EOE, this balance is disrupted, leading to chronic inflammation of the esophagus. Unfortunately, EOE is likely to be a lifelong condition once symptoms occur. Many theories about what might cause this imbalance include environmental factors, infections, dietary factors, or even genetic predisposition. However, the exact cause of EOE is not yet known.

Who gets EoE?

EoE is a relatively rare disease but is increasing in prevalence, with an estimated 1 in 2,000 Americans affected. More and more people are being diagnosed with EoE these days. This is partly because EoE is becoming more common and doctors are improving at recognizing it. EoE affects people of all ages and ethnic backgrounds. We see it in infants, children, and adults. It attacks more men than women, with a peak incidence in the 30s and 40s. About 2/3 of patients with EoE have some allergy or have a close family member with allergies, such as food allergies, asthma, or eczema. The risk of siblings being affected is less than 5%, unless twins are involved.

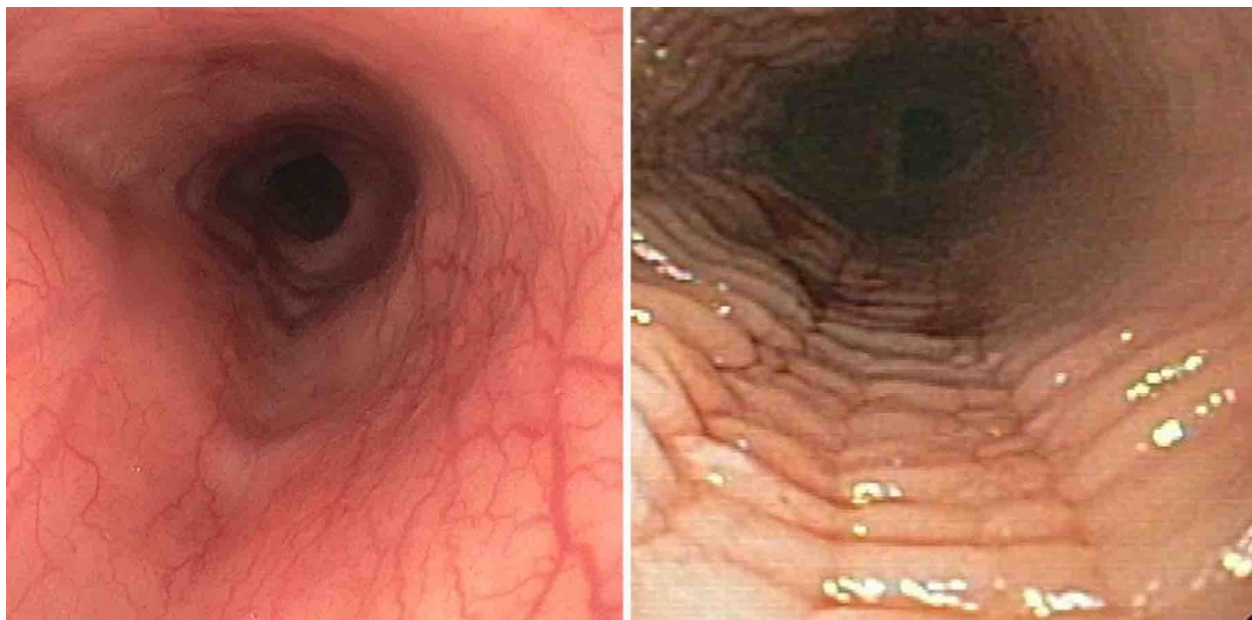
What are the symptoms of EoE?

Symptoms vary depending on the age and duration of the disease and include heartburn, chest pain, and vomiting. In adults, the most frequent symptom is dysphagia, or difficulty swallowing. Initially, there is an odd sensation as if food is sticking on the way down. In extreme cases, a food bolus may become lodged in the esophagus. It won't come up, and it will go down! This is called a "food impaction" and, if persistent, is a medical emergency. A food impaction signifies long-standing disease and advanced stages of EoE but, sadly, is often present when the diagnosis is first made. Public health data suggest that, on average, there is a delay of about five

years from the onset of symptoms until the diagnosis is made. The diagnosis is often made only after a food impaction and a trip to the Emergency Room. We must improve our approach to diagnosing EoE to start treatment earlier and prevent long-term damage to the esophagus. We need to do a better job, including better patient education.

How does your doctor know?

The most reliable test for diagnosing EoE is called an upper endoscopy. This is the only way to know if you have EoE. Under painless sedation, your doctor will pass a thin, flexible tube with a camera down your throat to look at your esophagus and see if it's swollen. The test doesn't hurt; you can go home the same day. Classic EoE is very characteristic at upper endoscopy as you see below. We call them "rings and railroad tracks."



Normal Esophagus Lining

Eosinophilic Esophagitis

Note the linear tracks and circular rings classic for EoE at Endoscopy

Biopsies of the esophagus lining are obtained and sent to a pathologist for microscopic examination. The pathologist can look for eosinophils and count the number present. Normally, there are very few eosinophils in the esophagus. However, if the pathologist finds more than 15 eosinophils in a high-powered microscopic field, the diagnosis of eosinophilic esophagitis is considered. There are specific guidelines that doctors follow to diagnose EoE. They will evaluate your symptoms, upper endoscopy results, and what the pathologist sees when they examine your tissue samples.

It's important to note that other conditions can cause eosinophils to infiltrate the esophagus, including chronic gastroesophageal reflux disease or acid reflux. There is a bit of overlap

between these conditions. Therefore, patients may be given acid-suppressing medication for several months before an endoscopic biopsy. Then, if many eosinophils are still seen on biopsy, it is likely not due to acid reflux, confirming the diagnosis of EoE.

Treatment

EoE is a lifelong disease, and we have no cure at present. Treatment aims to reach a manageable point, keeping the disease in remission and minimizing esophageal damage and scarring. Early diagnosis and treatment are crucial. If left untreated for a long time, EOE can lead to permanent scarring of the esophagus, which makes it difficult for food to pass down. However, we can avoid these long-term complications if an excellent therapeutic regimen is started early and the disease is controlled. It takes 2–3 months for treatments to affect the esophagus positively. Often at that time, repeat endoscopy and biopsies are performed to assess the degree of esophageal infiltration and the response to treatment.

Elimination diets

Research has shown a strong connection between food allergies and eosinophilic esophagitis (EOE). The following six foods are most commonly associated with this allergic response: cow's milk, dairy, wheat, soy, eggs, nuts, and seafood or shellfish. Unfortunately, routine allergy skin and blood tests cannot accurately determine which foods might be the problem, so formal allergy testing is not very useful.

Elimination diets can help identify food allergies and improve EOE symptoms. Strict diets are hard to maintain; unfortunately, no accurate test determines which food allergies are connected with EOE. But it often helps to eliminate two of the most common foods: dairy and wheat. If a special diet is prescribed, meeting with a registered dietitian can help make sure that nutritional needs are met with dietary restrictions in place.

Medications

Proton Pump Inhibitors (PPIs)

There is an overlap between patients with Acid Reflux and EoE. Proton Pump Inhibitors such as Nexium (esomeprazole), Prilosec (omeprazole), and Protonix (pantoprazole) reduce stomach acid and can help lower esophageal inflammation. The rate of symptom improvement in adults with EoE treated with PPIs is about 30–40%. Chronic PPI use is most helpful in patients with chronic heartburn and those with stricture formation after esophageal dilation.

Topical steroids, such as Flovent (fluticasone) or Pulmicort (budesonide), are a common treatment option for EoE that can put the condition into remission. These medications are similar to those used to treat asthma but are swallowed rather than inhaled to coat the

esophagus and reduce irritation and inflammation in the lining. Fluticasone is administered with an asthma inhaler, but the patient is advised to swallow the medication, not inhale it. Budesonide is usually given as a slurry made by a compounding pharmacy. Patients are advised not to eat or drink anything for at least one hour after each dose.

These therapies are very effective but may cause side effects such as thrush or yeast infections. However, it's important to note that inflammation typically returns in 90% of patients after stopping steroid therapy.

Dupixent

As of May 2022, the FDA approved a new drug called Dupixent® (dupilumab) to treat EoE in adults and children 12 years of age and older. Cytokines are small proteins that control the activity of other immune system cells, including eosinophils. This medication works by blocking cytokines that contribute to esophageal inflammation. Dupixent® can help alleviate dysphagia symptoms and may be an effective treatment option for patients who have not responded to other therapies. This medication is administered through a weekly subcutaneous injection placed under the skin.

Esophageal Dilation:

If the esophagus has become too narrow due to EoE, esophageal dilation may be recommended to treat a narrowed esophagus. Performed during upper endoscopy, this procedure involves temporarily inflating a special elongated balloon into the restricted section of the esophagus and stretching it out. In severe cases, repeated dilations may be necessary.

What is the long-term prognosis?

The initial diagnosis of Eosinophilic Esophagitis can affect the entire family, and it's essential to focus on non-food activities and stay positive. Patients should be reassured that EoE does not affect life expectancy and is not associated with esophageal cancer. However, developing esophageal strictures and difficulty eating can be significant patient concerns, as they may lead to lifestyle changes. Being diagnosed with a lifelong chronic disease can be overwhelming. Still, with a positive attitude, the support of family and friends, and proper medical management, individuals with EoE can successfully manage the condition and maintain their quality of life. It's important to note that the natural history of EoE is still emerging, and careful monitoring and long-term follow-up are advised.

Center For Digestive Health & Nutrition

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The Center for Digestive Health & Nutrition is a private medical practice comprised of experienced Gastroenterologists, Nurse Practitioners, and staff members dedicated to preventing and treating digestive disorders. Our physicians have been serving the needs of those in Western Pennsylvania and surrounding areas since 1977, having cared for tens of thousands of individuals with digestive problems. Our mission is to deliver high-quality gastroenterology services efficiently and cost-consciously. We realize the very sensitive nature of GI illness and understand the necessity to provide our services in an environment that stresses patient privacy and confidentiality and where patient satisfaction is the goal. Appointments can be conveniently scheduled online via our website above. Learn more about digestive issues on Instagram @thedigestivetract

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