

## Eosinophilic Esophagitis

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### What is eosinophilic esophagitis?

Eosinophilic esophagitis (EoE) is an inflammation of the esophagus (the tube connecting the mouth to the stomach) caused by a specific white blood cell—the eosinophil. Nearly three-quarters of affected cases occur in white males. The number of people affected is about 1 in 10,000, but health officials think this number is underreported. This is a relatively newly recognized disease that has been increasingly diagnosed in adults and children over the past decade.

### What are the symptoms of eosinophilic esophagitis?

Patients with eosinophilic esophagitis may experience symptoms such as heartburn, regurgitation, chest pain, and difficulty swallowing. Adolescents and adults with eosinophilic esophagitis frequently complain of intermittent swallowing problems; infants and young children may develop feeding disorders leading to poor weight gain. In a small number of cases, eosinophilic esophagitis leads to the development of an extremely narrowed esophagus, resulting in food occasionally becoming stuck in the esophagus and requiring emergency removal.

### How is eosinophilic esophagitis diagnosed?

Currently, eosinophilic esophagitis is diagnosed by upper endoscopy and biopsy. The endoscopy sometimes reveals rings, white plaques (patches), or grooves in the esophagus. However, eosinophilic esophagitis may be present even if the esophagus looks normal. That is why biopsy samples are taken. Biopsy samples look for an overabundance of eosinophils in the esophageal tissue. Sometimes multiple biopsies may need to be taken.

### How is eosinophilic esophagitis treated?

There are two main treatment approaches to eosinophilic esophagitis: steroid medications and dietary management.

- **Drug approaches.** Steroids are the most commonly used medication for both the control of the inflammation and the direct suppression of the eosinophils. These medications can be taken orally (in pill form) or topically. Steroids may need to be taken long term, though their long-term use for eosinophilic esophagitis has not been well studied. What is known is that for some patients, continued swallowed use of steroids can result in *Candida* infections (yeast infections of the mouth and esophagus) as a side effect.

A drug class that is currently being investigated for future use is biologic agents. These drugs would specifically target the white blood cell itself, the eosinophil.

- **Dietary management.** There is also some thought that food allergies may be a cause of eosinophilic esophagitis. However, which foods might be the cause has yet to be determined. The more common foods associated with food allergies in general are milk, eggs, nuts, beef, wheat, fish, shellfish, corn, and soy. In the case of eosinophilic esophagitis, a single food may be problematic in some people and many foods may be the cause in others.

With this in mind, several dietary approaches can be tried:

- In a **targeted** approach, foods are eliminated from the diet one at a time as best indicated by allergy testing. Unfortunately, typical allergy tests such as skin prick tests or blood tests are not usually effective in determining the problematic foods responsible for eosinophilic esophagitis.
- Another type of elimination diet, the **common foods** elimination diet (outlined in the paragraph above), is often tried.
- A third approach, **an elemental diet**, consists of removing all sources of protein from the diet. This is a very strict, tasteless, amino acid formula-based diet that may require a feeding tube hooked up directly to the stomach in order to obtain enough nourishment. In this diet, only amino acids (the building blocks of proteins) are supplied to patients. This is, however, the most effective diet for people with eosinophilic esophagitis.

With any of these food trial diets, foods are slowly reintroduced in an attempt to discover which ones are causing the allergic reaction. Repeat biopsy and endoscopic examination are necessary to determine which foods are not problematic.

- **Other non-drug approaches.** Another treatment that has been tried for some patients is esophageal dilatation. This is tried specifically in patients who get food stuck in their esophagus.

## What is the outlook for patients with eosinophilic esophagitis?

Based on what is known to date, eosinophilic esophagitis does not cause cancer of the esophagus and is not thought to limit life expectancy in any way.