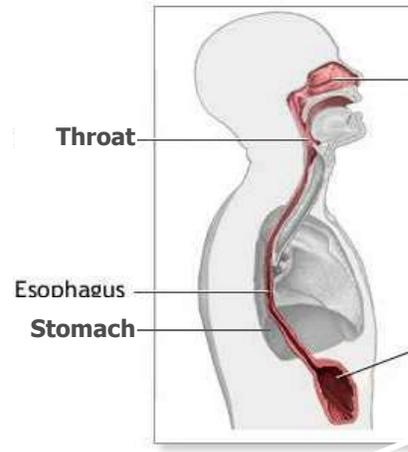


## Eosinophilic Esophagitis (Allergic esophagitis)

### What is eosinophilic esophagitis (EoE)?

EoE is a problem with the tube that connects the throat to the stomach. This tube is called the food tube or esophagus. With EoE the skin of the esophagus becomes inflamed. Children do not grow out of EoE. Long-term diet changes or taking medicines regularly will control the disease and prevent complications. Anyone can get it, but it happens more often in:

- School-age children.
- Children whose families have allergic diseases like asthma, hay fever, food allergies, or eczema.



### What are the symptoms?

- In infants and young children: Feeding problems, slow weight gain, and vomiting.
- In school-age children: Vomiting, chest, or stomach pain.
- In older children and teens:
  - Swallowing problems. This is called dysphagia.
  - Food getting stuck in the esophagus. This is called food impaction. The problem gets worse the longer EoE goes untreated.

### How is it diagnosed?

The doctor will use a long camera to take a small piece of skin (biopsy) from the esophagus. This is called an endoscopy. See [www.chw.org/scope](http://www.chw.org/scope) for more information.

### How is it treated?

Care is given by a team of health care providers. They include:

- **Gastroenterologist (GI).** This doctor does the endoscopy. The GI doctor talks with a pathologist about the biopsies.
- **Allergist.** This doctor helps treat and manage food allergies, hay fever, asthma, or eczema. Allergy tests may be done to try to figure out food allergies.
- **Nurse.** The nurse coordinates care and answers questions between clinic visits.
- **Dietitian.** This person talks about nutrition and foods that may need to be taken out of your child's diet. They also recommend foods and drinks that are safe and meet the nutritional needs of your child.

Treatment may include taking foods out of the diet or taking medicines. A few things may need to be tried to find the best treatment for your child. Regular visits are needed:

- Visits for endoscopies to see if the treatment is working.
- Gastroenterologist and dietitian visits. They will monitor:
  - Success of treatment.
  - Management of other medical concerns.
  - Growth and nutrition.

## Diet

Diet changes are one type of treatment. Foods are taken out of the diet. This does not cure the disease, but it keeps it from coming back. At this time, there are no reliable tests to know which foods need to be removed to treat the disease. Doing an endoscopy shows whether taking foods out of the diet treated the esophagus. Foods can then be added to the diet one at a time. This is called food elimination. It can be done several ways:

**Empiric elimination diet.** Foods that often cause EoE are taken out of the diet.

There are three common empiric elimination diets.

- **Six foods elimination.** This means taking out:
  - Milk            – Eggs                            – Wheat
  - Soy             – Peanuts/Tree nuts        – Seafood/Fish
- **Four foods elimination.** This means taking out:
  - Milk                    – Eggs
  - Wheat                 – Soy
- **Single food elimination.** This means taking out milk.

**Guided elimination.** This is also called allergy test based diet.

Allergy tests may be used to try to learn which foods to take out of the diet. The results of these tests are not always accurate. This means:

- Having a positive test does not mean the food is unsafe to eat.
- Having a negative test does not mean the food is safe to eat.

An endoscopy will be done to see if the diet is working. Allergy tests can help find other allergic conditions, such as causes for hay fever. The test may also find food allergies not related to EoE that may need treatment right away.

**Complete elimination.** This is also called an elemental diet.

This diet is for children who are very allergic to foods or who have feeding tubes. Age-appropriate liquid formula will replace food. These formulas are made up of individual amino acids. The immune system will not react to the formula.

The formula has all the nutrition needed to help your child grow and develop. Often, a large amount must be given. A feeding tube may be needed to help meet your child's nutrition needs.

## Medicine

Medicines may also be used if changes in the diet do not help, or there is a reason that you should not remove food from the diet. They do not cure the disease. Stopping the medicine may cause the symptoms to come back.

- **Acid blockers.** These may be used to treat and decrease inflammation in the esophagus. Examples include omeprazole and lansoprazole. Trying an acid blocker at some point during therapy is important, as it may reveal that your child has a condition called Proton Pump Responsive Eosinophilia (PPI-REE).

PPI-REE is a new condition. It is found in many people who have eosinophilic inflammation in their esophagus. Medicines that were used only to block acid for acid reflux disease have been shown to help patients with eosinophilic esophagitis. Trying an acid blocker called Proton Pump Inhibitor (PPI) is recommended for patients with EoE to see if it helps the condition.

PPIs are safe. Rare side effects in children include a higher risk of some infections. An endoscopy is the only way to check if the treatment is working.

- **Swallowed steroids.** Steroids much like those used for asthma are the main medicines used to treat EoE. These medicines stay in the food tube (esophagus). They decrease inflammation caused by the immune cells or the eosinophils. Examples include swallowing Flovent® from an inhaler or drinking thickened Pulmicort® flavored with Splenda® or other thickeners like honey or maple syrup. The main side effect is a yeast infection called Candida in the mouth or esophagus. Candida can be treated with a short term medicine.
- **Oral steroids** (prednisone). These often help but are not commonly used. Oral steroids affect the whole body. Side effects include weight gain, high blood pressure, bloating, and/or mood changes. If these side effects can be managed, the medicine is useful.

### How do the treatments compare?

Treatment type → Results for: ↓	Elemental Diet	Empiric Elimination (Milk only, 4 food, or 6 food)	Guided Elimination	Acid Blocker (PPI)	Topical Steroids (also called swallowed steroids)	Systemic Steroids (also called oral steroids)
Mucosal healing	98%	65 to 77%	30 to 70%	70%	75%	99%
Cost and how much work for parent	High	High	Low to moderate	Low	Low	Low
Psychosocial side effects	High	Moderate to high	Variable	Low	Low	Moderate to high
Medical side effects	None	Low	Low	Low	Rare	High
How do sick patients do with treatment?	High	High	High	High	High	High
How do healthy patients do with treatment?	Low	Low	Moderate	High	High	Low

### What happens in the long run?

EoE will not go away. It is considered a chronic condition. Without treatment, patients may end up on mostly liquid diets. Regular stretching of the esophagus during an endoscopy may be needed. This is called dilatation. At this time, there does not appear to be a higher risk of esophageal cancer for patients with EoE.

### Where can I get more information?

You can find **general information** about EoE and food allergies at:

- Wisconsin Partners of Eosinophilic Patients (WI-PEP) Support group: [Wisconsin.pep@gmail.com](mailto:Wisconsin.pep@gmail.com).
- The American Partnership for Eosinophilic Disorders (APFED): [www.apfed.org](http://www.apfed.org).
- Food Allergy Research and Education (FARE): [www.foodallergy.org](http://www.foodallergy.org).

**Information about your child's case should come from your child's health care team.**

**ALERT:** Call your child's doctor, nurse, or clinic if you have any questions or concerns or if your child has special health care needs that were not covered by this information.

**This teaching sheet is meant to help you care for your child. It does not take the place of medical care. Talk with your healthcare provider for diagnosis, treatment, and follow-up.**