

## WHAT IS EOSINOPHILIC GASTROINTESTINAL DISEASE (EGID)?

When a person has a high number of eosinophils in their digestive tract and other non-GI causes for it have been ruled out, he or she may have an EGID. The eosinophils cause inflammation and damage to tissues and organs.

EGIDs are rare diseases that affect people of all ages and ethnic backgrounds. It is not known what causes EGID, but food and environmental allergies may play a role. People who have a personal or family history of allergic disorders (e.g., food allergy/anaphylaxis, eczema, hay fever, asthma) or with other eosinophil-associated disease may be at higher risk of developing EGID.

EGIDs are further defined by the area affected:

**Eosinophilic Esophagitis (EoE):** esophagus

**Eosinophilic Gastritis (EG):** stomach

**Eosinophilic Gastroenteritis (EGE):** stomach and/or small intestine, or multiple segments of gastrointestinal tract

**Eosinophilic Duodenitis:** first part of small intestine immediately beyond the stomach

**Eosinophilic Enteritis:** Small intestine

**Eosinophilic Colitis (EC):** large intestine/colon

This brochure provides information about the “lower EGIDs”—**eosinophilic gastroenteritis, eosinophilic gastritis, and eosinophilic colitis**. Those who have a diagnosis of eosinophilic duodenitis or eosinophilic enteritis may refer to the panel that discusses EG and EGE, as the information applies to these subsets.

For information specific to **eosinophilic esophagitis**, or to order brochures about that subset, visit [apfed.org](http://apfed.org).

### ABOUT APFED

Founded in 2001, the American Partnership for Eosinophilic Disorders (APFED) is a 501(c)3 nonprofit organization that assists and supports patients and families affected by eosinophil-associated diseases, including eosinophilic gastrointestinal disorders, hypereosinophilic syndrome and eosinophilic granulomatosis with polyangiitis (aka Churg-Strauss Syndrome). APFED provides education, creates awareness, supports research and promotes advocacy. Our work is funded by grants, membership dues, and donations.

Visit [apfed.org](http://apfed.org) for free educational materials and information about events such as APFED's annual patient education conference and National Eosinophil Awareness Week (third week of May).

### JOIN US

Become a member of APFED to stay up-to-date on news and initiatives related to eosinophil-associated diseases. For information about membership and benefits or to make a tax-deductible gift to support our work, visit [apfed.org](http://apfed.org).



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### Be a Part of the Cure

The Eosinophil.Connect patient registry connects patients who need a cure with the researchers who are working on one. The more scientists can learn from you, the faster they can work to develop improved diagnostics and therapies, and one day, a cure!

**TAKE A MOMENT TO ENROLL TODAY!**

<https://connect.patientcrossroads.org/?org=apfed>

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## EOSINOPHILIC GASTROINTESTINAL DISEASES

Eosinophilic Gastritis

Eosinophilic Gastroenteritis

Eosinophilic Colitis



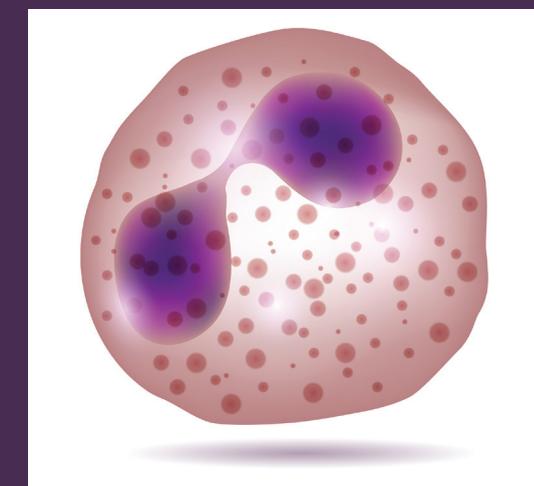
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CONNECTING THE EOSINOPHILIC COMMUNITY

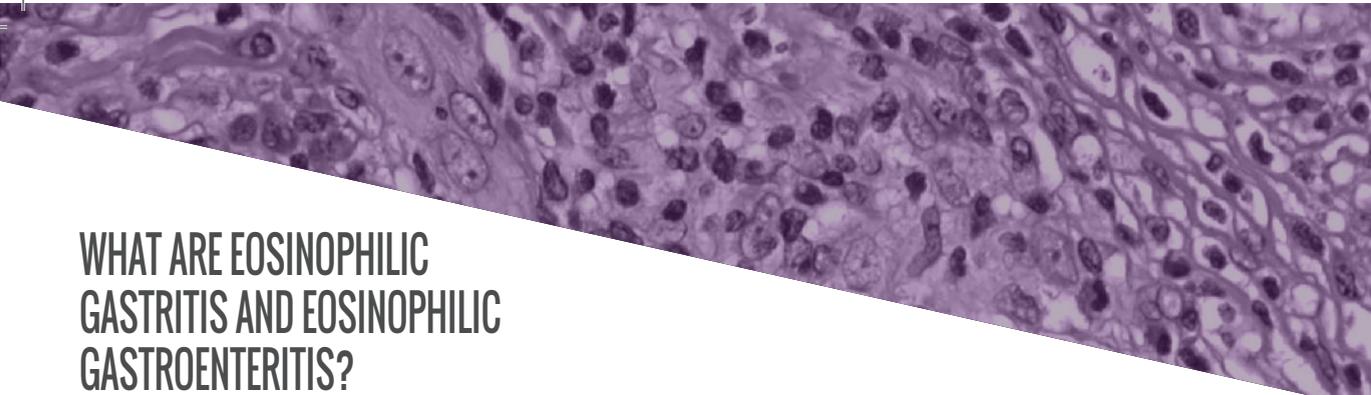
## WHAT IS AN EOSINOPHIL?

Eosinophils are a type of white blood cell that help our immune system to fight off certain types of infections.

High numbers of eosinophils in the blood may be caused by a number of different reasons, including allergies (food and environmental), parasitic infections, and certain cancers, to name a few.



Eosinophils are not normally present in the esophagus, however, it is normal to see a small number of these cells in other areas of the digestive tract. Diseases other than eosinophilic gastrointestinal diseases, such as gastroesophageal reflux disease, drug allergy/hypersensitivity response, and inflammatory bowel disease (Crohn's), can cause increased eosinophils in the digestive tract.



## WHAT ARE EOSINOPHILIC GASTRITIS AND EOSINOPHILIC GASTROENTERITIS?

Eosinophilic gastritis (EG) is a rare disease in which eosinophils accumulate in elevated amounts in the stomach, causing injury and inflammation. When the stomach and/or the small intestine are affected, or when multiple segments of the gastrointestinal tract are affected, the disease is categorized as eosinophilic gastroenteritis (EGE). Sometimes these two terms are used interchangeably.

Both EG and EGE are similar in how the disease affects the patient, how they are diagnosed, and how they are treated.

### What causes EG and EGE and who is affected?

The cause of EG and EGE is not well understood. It is believed that allergy may have a role. Those with a personal or family history of allergic disorders (e.g., food allergy/anaphylaxis, eczema, hay fever, asthma) or with other eosinophil-associated disease may be at a higher risk of developing EG or EGE. These diseases affect both adults and children.

### What are the symptoms of EG or EGE?

Common symptoms include abdominal pain; diarrhea; difficulty feeding, tolerating foods, and/or gaining weight; fatigue; nausea; poor growth; bloating; and vomiting. Anemia (low blood counts) can develop.

### How are EG and EGE diagnosed?

EG and EGE are diagnosed by an upper endoscopy. A small tube is inserted into the mouth and is directed into the esophagus, stomach, and small intestine. During the endoscopy, the doctor evaluates the appearance of these organs and takes small tissue samples (biopsies) for a pathologist to examine under a microscope. While it is normal for stomach and small intestine tissue to have some eosinophils present, the pathologist will determine if there is an abnormally high number of these cells in

the tissue sample. Most patients with EG and EGE also have high levels of eosinophils in their blood. An EG or EGE diagnosis is typically based on an individual's symptoms, the appearance of the digestive tract as seen during the endoscopy, and the pathology report.

### How are EG and EGE treated?

Treatment goals include reducing the number of eosinophils and the associated symptoms, inflammation, and damage. Two main therapies are used to manage EG and EGE:

**1. Dietary Therapy:** Food allergies may have a possible role in EGIDs. While allergy testing is not always effective in identifying specific food triggers for EGIDs, your doctor may suggest it to help guide an elimination diet. Elimination diets (avoiding specific foods or food groups) and/or specialized amino-acid-based formulas (elemental diets) help reduce eosinophils and improve symptoms in some patients.

**2. Medications:** Medications such as systemic steroids (prednisone), steroids that are topically active in the intestine ("enteral release" budesonide) or other anti-inflammatory or immunomodulatory medicines may be prescribed. If there is an iron deficiency, iron supplements may also be recommended.

### What is the prognosis of EG and EGE?

EG and EGE are chronic diseases with periods of activity and apparent remission. To evaluate how a patient is responding to treatment, periodic endoscopies with biopsies are performed. Prognosis depends on the response to treatment. If left untreated, individuals may experience issues such as malabsorption, ulcers, anemia, and/or poor growth.

## WHAT IS EOSINOPHILIC COLITIS?

Eosinophilic colitis (EC) is a rare disease in which eosinophils accumulate in elevated amounts in the large intestine, causing injury and inflammation.

### What causes EC and who is affected?

For many patients, it is not known what causes EC. Both adults and children may be affected. Those with a personal or family history of allergic disorders (e.g., eczema, hay fever, asthma) or with other eosinophil-associated disease may be at higher risk of developing EC.

EC can be associated with other conditions, such as allergies, parasitic infections, inflammatory bowel disease, and autoimmune diseases, to name a few. The role of food allergies in EC is not yet well understood, but food triggers are sometimes seen in infants and children, but less so in adolescents and adults.

### What are the symptoms of EC?

EC in infants is often characterized by bloody diarrhea. Other symptoms may include difficulty feeding, weight loss, and malnourishment. Older patients commonly experience diarrhea (bloody or non-bloody), abdominal pain or cramping, weight loss, and fatigue. At any age, if blood loss is significant, anemia can develop.

### How is EC diagnosed?

Eosinophilic colitis is diagnosed by a lower endoscopy (colonoscopy) where a small tube is directed through the anus, rectum, and large intestine. During the colonoscopy, the doctor evaluates the appearance of the colon and takes small tissue samples (biopsies) for a pathologist to examine under a microscope. While it is normal for the colon to have some eosinophils present, the pathologist will determine if there is an abnormally high number of these cells in the tissue sample. An EC

diagnosis is typically based on an individual's symptoms, the appearance of the colon as seen during the lower endoscopy, and the pathology report.

### How is EC treated?

Treatment goals include reducing the number of eosinophils, and the associated symptoms, inflammation, and damage. Two main therapies are used to manage EC:

**1. Dietary Therapy:** Food allergies have been identified as having a possible role in EGIDs. While allergy testing is not always effective in identifying specific food triggers for EGIDs, your doctor may suggest it to help guide an elimination diet. Elimination diets (eliminating specific foods or food groups) and/or specialized amino-acid-based formulas (elemental diets) may be recommended to help reduce eosinophils and improve symptoms. For some patients with EC, especially infants, removing milk (sometimes along with soy) can improve symptoms.

**2. Medications:** Steroids such as prednisone (a systemic medication) or budesonide (a topically active medication) may be prescribed. Anti-inflammatory medications or immunomodulatory medications may also be prescribed.

### What is the prognosis of EC?

EC is a chronic disease with periods of activity and apparent remission. To evaluate how a patient responds to treatment, periodic colonoscopies with biopsies are performed. Prognosis of EC depends on the response to treatment. If left untreated, individuals may experience issues such as anemia and/or failure to thrive.

The initial diagnosis of EGIDs can be overwhelming and often affects the entire family. It is important to seek proper medical care to help manage a chronic illness. Try to learn as much as you can about the disease and reach out to others for support. APFED can help answer your questions and put you in touch with local support groups and our online community.