



a charity dedicated to improving lives
affected by eosinophilic disorders

Founded in 2009, ausEE Inc. is a registered Australian charity dedicated to providing support and information to anyone diagnosed with or caring for someone with an Eosinophilic Gastrointestinal Disorder (EGID) including Eosinophilic Oesophagitis (EoE).

We are committed to raising public awareness and supporting the medical community for further research in Australia.

Donations to ausEE Inc. over \$2 are tax deductible. All donations received will help ausEE Inc. to achieve our mission to improve the lives of those affected by EGIDs by providing support and information and by funding Australian medical research through ausEE's Medical Research Fund.

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The information provided on this fact sheet, the ausEE website and any related links is for general information and support purposes only and is not intended as a substitute for professional medical advice from your doctor or other health care professional.

FACT SHEET

Eosinophilic Gastrointestinal Disorders

What are Eosinophilic Gastrointestinal Disorders?

Eosinophilic gastrointestinal disorders (EGIDs) occur when eosinophils (pronounced ee-oh-sin-oh-fills), a type of white blood cell, are found in above-normal amounts within the gastrointestinal tract.

Eosinophils are an important cell in your body. It has many roles including defence against parasitic infections (e.g. worms), and involvement in some forms of hypersensitivity and allergy. In some individuals, eosinophils accumulate in the gut potentially in response to drugs, food, airborne allergens and other unknown triggers. This infiltration can cause inflammation and tissue damage.

In EGIDs, if abnormal amounts of eosinophils are found in different regions it is called:

- oesophagus (eosinophilic oesophagitis)
- stomach (eosinophilic gastritis)
- duodenum (eosinophilic duodenitis)
- small intestine (eosinophilic enteritis)
- large intestine (eosinophilic colitis)
- throughout the gastrointestinal tract (eosinophilic gastroenteritis)

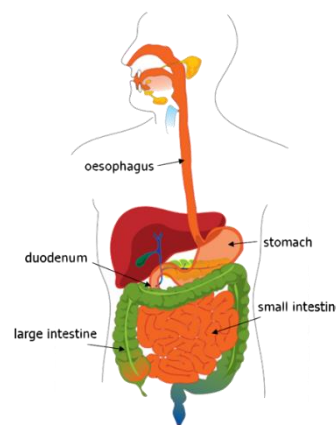


diagram of the gastrointestinal tract

What is Eosinophilic Oesophagitis?

Eosinophilic Oesophagitis (EoE) is the most common type of Eosinophilic Gastrointestinal Disorder (EGID). The exact cause of EoE in most individuals is unclear. In some, it appears to be due to an allergy to food(s) and/or aero-allergens.

The current estimated prevalence of EoE is 1 in 2,000 individuals and rising. People with EoE may have other allergic diseases such as IgE (immediate) food allergies, asthma, eczema and/or hay fever. EoE affects people of all ages, gender and ethnic backgrounds. In certain families, there may be an inherited (genetic) tendency. Males are more commonly affected than females.

In its most severe form, EoE may cause scar tissue (called fibrosis) in the oesophagus.

The symptoms of eosinophilic oesophagitis vary from one individual to the next and can include:

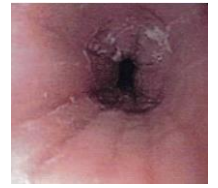
- Feeding difficulty (such as needing to puree foods, being slow to chew foods, avoidance of textured foods)
- Difficulty in swallowing foods and/or regularly requiring a drink after eating
- A food suddenly becoming stuck in the oesophagus (called food impaction)
- Nausea, persistent vomiting and retching
- Abdominal or chest pain
- Reflux that does not respond to anti-acid medication
- Failure to thrive (failure to put on or loss of weight) due to inadequate intake

In other types of eosinophilic gastrointestinal disorders, symptoms depend on which part of the gut is affected (e.g. diarrhoea and bloody stools if the small or large intestine is involved).

How is EGID & EoE Diagnosed?

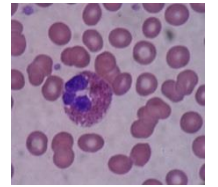
Endoscopy with biopsies are the only way to confirm the diagnosis of an EGID and EoE at present. The diagnosis cannot be based upon symptoms alone.

Endoscopy – a gastroenterologist performs an endoscopy by using an endoscope (a tube with a light and camera at the end) to look at the GI tract and take small biopsies, usually from the upper oesophagus, lower oesophagus, stomach and duodenum. The oesophagus may look visually normal, but when the tissue is examined under a microscope, an abnormal accumulation of eosinophils can be detected. It is also possible that the endoscopist could visually detect rings or furrowing, thickened folds and white plaques.



oesophagus with furrowing

Biopsy – the biopsies taken are later reviewed by a pathologist. A high number of eosinophils (counted per high power field under the microscope) suggest the diagnosis of EGID. Eosinophils can normally be found in small numbers in all areas of the GI tract except the oesophagus. GERD/GORD (acid reflux disease) is associated with low numbers of eosinophils in the oesophagus. With eosinophilic oesophagitis, the number of eosinophils seen is much higher and remains elevated despite treatment with acid reflux medication. A minimum of 15 eosinophils per high-power field are required to make the diagnosis of EoE.



eosinophils under a microscope

What is the Treatment for EGID & EoE?

There is no cure for EGID and EoE, but the goal of treatment is to eliminate the eosinophils in the affected area, thereby alleviating symptoms and reducing inflammation to minimal safe levels. Treating specialists should discuss the treatment options with patients/families and tailor treatment to the individual. EGIDs are chronic diseases that require ongoing monitoring and management.

Treatment options for EoE include:

- Elimination diet/elemental diet
- Antacid medications/Proton pump inhibitors (PPIs)
- Corticosteroids (usually topically administered)
- Oesophageal dilation

An **Elimination diet** is one common treatment option. It is important to speak with a qualified Allergist/Gastroenterologist, and have a Dietitian experienced in food allergy before undertaking an elimination diet. The elimination diet is tailored to the individual. Some individuals may be able to identify specific food(s) that trigger symptoms, but most cannot. More than one food may be involved. Some doctors may suggest removal of up to 6/8 common food allergens (milk, egg, soy, wheat, peanut/tree nut, shellfish/fish). Recent studies indicate milk, egg, wheat and soy are the most common food triggers of EoE, and hence some specialists may recommend removal of these 4 food triggers only. There is no test (skin prick test, blood test or patch test) that can reliably indicate the specific food trigger(s) in EoE. With any elimination diet it is important to ensure diet is balanced, growth is maintained and that there is a plan in place to re-assess.

An **Elemental diet** consists of only a special medical food called an elemental formula, which contains amino acids (the building blocks of proteins), fats, sugars, vitamins and minerals. They provide all the nutrition a person needs if enough is taken. Some individuals need a feeding tube to ensure they are getting enough of the formula or to give the oesophagus a rest. The patient is placed on the formula alone for a number of weeks and will then have a repeat endoscopy to see if there has been improvement. If the condition has improved, then foods are slowly introduced back into the diet and a repeat endoscopy is often performed to ensure ongoing control with food reintroduction.

Medication can be used alone and/or along with dietary management. The most common medications used in EoE are swallowed corticosteroids, often a fluticasone puffer (which is swallowed) or budesonide ampoules (which are made into a slurry) are used. These medications coat the oesophagus and assist in getting rid of eosinophils. Acid reflux medications may also be used. The doctor will determine which, if any, medications are appropriate for each individual.

Oesophageal dilation can be used in people with severe narrowing or strictures of the oesophagus to provide instant relief, and secondly in those with long-standing symptoms who have tried diet or medications and have not improved. Whilst dilation is relatively safe, this treatment is less convenient as it involves an endoscopic procedure and is best used in carefully selected cases only.

Do you want more information?

Talk to your doctor about Eosinophilic Gastrointestinal Disorders.

There is also additional information at:

www.ausee.org

References:

1. Australasian Society of Clinical Immunology and Allergy (ASCI) Available at: www.allergy.org.au
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3. American Partnership for Eosinophilic Disorders (APFED) Available at: www.apfed.org
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