

Content from /en/blog/eosinofil-oesofagitis/

Eosinophilic oesophagitis (EoE): the allergic oesophageal disease

Eosinophilic oesophagitis (EoE) is a chronic, immune-mediated inflammatory disease of the oesophagus in which allergic inflammatory cells (eosinophils) accumulate in the mucosa. EoE is the **second most common cause of chronic dysphagia** after GERD, and prevalence has risen sharply over the past 20 years - now estimated at **1 in 2,000** in Western countries [1]. It most commonly affects men in their 20s-40s with concurrent asthma, eczema or hay fever.

Symptoms

EoE is a chronic progressive disease - symptoms often develop over years:

- **Dysphagia** - especially for solid food
- **Food bolus impaction** - food stuck in the oesophagus (classic acute presentation in young men)
- **Chest pain** - may mimic cardiac pain
- **Heartburn** - often PPI-refractory
- **Vomiting, regurgitation**
- **Adaptive eating behaviour** - patients eat slowly, chew thoroughly, drink much water with meals

In children: failure to thrive, vomiting, food aversion.

Why does EoE occur?

EoE is a **type 2 immune reaction** against food antigens (milk, wheat, egg, soy, nuts, fish) or aeroallergens. Genetic factors (TSLP, CAPN14, CCL26) predispose. Eosinophilic inflammation leads to:

- **Acute phase:** oedema, mucosal furrows, white exudates
 - **Chronic phase:** tracheal rings ("feline oesophagus"), strictures, fibrosis
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Diagnosis

EoE is diagnosed by **three concurrent criteria** [2]:

1. **Symptoms** of oesophageal dysfunction
2. **≥15 eosinophils per high-power field** on oesophageal biopsy
3. **Exclusion of other causes** (especially GERD)

Gastroscopy with multiple biopsies is mandatory - at least **6 biopsies** from proximal AND distal oesophagus, because inflammation is patchy.

Typical endoscopic findings:

- Concentric rings
 - Longitudinal furrows
 - White exudates (eosinophil microabscesses)
 - Strictures
 - "Crepe paper" mucosa
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Differential diagnoses

Condition	Distinction
<u>GERD</u>	Responds to PPI; eosinophilia usually distal
PPI-responsive oesophageal eosinophilia	EoE responding to PPI (now considered a subgroup of EoE)
Achalasia	Abnormal manometry; dysphagia to both liquids and solids
Candida oesophagitis	White plaques, usually immunosuppressed

Condition	Distinction
Crohn's with oesophageal involvement	Rare; biopsy shows granulomas

Treatment - the 3 Ds

1. Drugs:

- **Proton pump inhibitors (PPIs)** - 40-60 % achieve histological remission [3]. First-line.
- **Topical steroids** - swallowed fluticasone or orodispersible budesonide (Jorveza). 60-80 % effective.
- **Dupilumab** (IL-4/IL-13 blocker) - approved 2022 for PPI-refractory EoE.

2. Diet:

- **Empirical 6-food elimination diet** (milk, wheat, egg, soy, nuts, fish) - 70 % remission, restrictive.
- **4-food elimination diet** (milk, wheat, egg, soy) - 50 % efficacy, easier to follow.
- **Reintroduction** of one food at a time + check [gastroscopy](#).

3. Dilatation:

- **Endoscopic dilatation** for symptomatic strictures - safe (perforation rate <1 %).
- Treats symptoms but not underlying inflammation.

Follow-up

- Repeat [gastroscopy](#) with biopsies 8-12 weeks after starting therapy to assess histological response.
- Long-term treatment is required - symptoms and inflammation recur on stopping treatment.

Treatment at Kirurgen.dk

We investigate chronic dysphagia, heartburn and food impaction with [oral](#) or [nasal gastroscopy](#) and routine biopsies from proximal and distal oesophagus when EoE is suspected. See also: [Dysphagia](#), [GERD](#), [Peptic ulcer](#), [Nasal vs. oral gastroscopy](#).

References

1. Dellon ES, Hirano I. *Epidemiology and natural history of eosinophilic esophagitis*. Gastroenterology 2018;154(2):319-32.
2. Lucendo AJ, Molina-Infante J, Arias Á, et al. *Guidelines on eosinophilic esophagitis*. United European Gastroenterol J 2017;5(3):335-58.
3. Laserna-Mendieta EJ, Casabona S, Savarino E, et al. *Efficacy of therapy for eosinophilic esophagitis in real-world practice*. Clin Gastroenterol Hepatol 2020;18(13):2903-11.