

Support for Healthy Gastroesophageal Function

Developed and reviewed by the clinical, chiropractic, and naturopathic members of the Standard Process team

Gastroesophageal Health and Function

The lower esophageal sphincter (LES) is a key junction between the esophagus and the stomach. It protects esophageal tissue from the reflux of gastric contents by staying tightly contracted. The contraction of sphincter smooth muscle fibers is supported by a high-pressure zone at the LES that is well above intragastric pressure under normal physiological activity. Swallowing causes a peristaltic wave to pass down the esophagus, leading to relaxation of the LES and easy movement of the swallowed bolus into the stomach.

There are four mechanisms of LES relaxation: swallowing, vagus-nerve stimulation, esophageal distention, and transient lower esophageal sphincter relaxation (TLESR). TLESR is the spontaneous relaxation of the LES unrelated to swallowing or peristalsis. While TLESR is considered physiologic, it is also thought to be the primary mechanism of gastroesophageal reflux (GER), when stomach contents migrate into the esophagus. GER can lead to symptoms like heartburn, cough, and long-term damage to the esophagus, throat, and respiratory tract. Gastroesophageal reflux disease (GERD) is a common chronic condition in Western society.

Many factors can contribute to lower LES tone and gastroesophageal reflux. These include certain foods, hormones like cholecystokinin and progesterone, pregnancy, smoking, alcohol, caffeine, and medications like antibiotics, aspirin, beta-blockers, and calcium channel blockers.

Lifestyle and nutritional interventions can support the healthy structure and function of the LES including the promotion of healthy smooth muscle, nerve tissue function, and cellular repair mechanisms.

Supportive Lifestyle Practices

- Recommend a diet plan that limits the intake of ultra-processed foods and simple carbohydrates. A lower carbohydrate diet — especially one that reduces simple sugars — has been shown to reduce heartburn severity, frequency, acid taste in the mouth, and sleep disturbance.¹

- Recommend acupuncture to support healthy LES function and promote gastrointestinal motility.² ST36, PC6, and SP4 have been identified as key acupuncture points that are helpful for gastroesophageal concerns.²
- Recommend that appropriate patients consume smaller, more frequent meals and avoid late-night eating. These strategies can promote improved hydrochloric acid and digestive enzyme function, mitigate stomach pressure, and decrease distension of the gastric fundus which can cause reflux symptoms.^{3,4}

Whole Foods Nutritional Recommendations

- Suggest that patients incorporate fresh papaya into their diet. Papaya fruit contains enzymes that help break down proteins, support digestion, and modulate reflux.⁵
- Encourage soluble fiber intake which has been shown to support esophageal motility and LES function, and reduce the frequency of reflux.⁵ Constipation is a known contributor to reflux symptoms and soluble fiber acts as a natural stool softener that supports healthy bowel movements. Fruits, vegetables, nuts, and legumes are good sources of soluble fiber.
- Consider incorporating fresh ginger into the diet. Ginger may help inhibit gastric acid production through its natural anti-inflammatory properties and is also known to have prokinetic activity which can support healthy gastrointestinal motility.³
- Recommend consumption of probiotic-rich foods like unsweetened yogurt or kefir, and sauerkraut, which can support digestive function and reduce the risk of gastroesophageal reflux.³

Dietary Supplement Regimen



Multizyme®

Suggested Use: **1 capsule per meal**

Multizyme® is a pancreatic enzyme supplement that contains digestive enzymes, including bromelain, papain, amylase, and lipase.

- Supports the normal breakdown of proteins, carbohydrates, and fats*
- Supports the digestive environment of the GI tract*
- Supplementary pancreatic enzymes support macronutrient digestion*



Gastro-Fiber®

Suggested Use: **3 capsules, 3 times daily on an empty stomach**

Gastro-Fiber® delivers a mixture of soluble fibers with diverse actions from psyllium husk, fennel and fenugreek seed powder, apple pectin and a specialized carrot fiber, which together support digestive health.*

- Supports a healthy gut microbiome by promoting growth of key microbial species prevalent in the gut*
- Supports a healthy gastrointestinal immune barrier function*
- Contains clinically studied precision prebiotic carrot fiber rhamnogalacturonan I (RG-I)



Gastrex®

Suggested Use: **2 capsules with a full glass of water 15 minutes before meals & bedtime**

Gastrex® supports digestion and stimulates cleansing of the upper gastrointestinal (GI) tract.*

- Supports the body's normal tissue repair process*
- Supports GI cleansing through the elimination of waste materials*
- Excellent source of niacin



HiPep

Suggested Use: **1 tablet 3-5 times daily**

HiPep contains Deglycyrrhizinized Licorice, Chamomile and Meadowsweet. These herbs have been traditionally used in herbal preparations to:

- Support normal function of stomach acid secretions*
- Promote healthy mucosal tissue within the upper gastrointestinal tract*
- Promote healthy tone and function within the upper gastrointestinal tract*
- Help relieve occasional indigestion symptoms of the gastrointestinal tract, including bloating and flatulence*

Assessment of Gastroesophageal Health

In Office/Physical Exam

- Symptoms such as heartburn, regurgitation, chronic cough, hoarseness, burping, sore throat, dysphagia, post-nasal drip, sleep problems
- Assess for the presence of hiatal hernia
- Medical History: asthma, laryngitis, recurrent pneumonitis, pulmonary fibrosis, metabolic syndrome

- Medications: Usage of PPIs, H2 blockers, or other antacids
- Key labs: SIBO testing, food sensitivities
- Upper endoscopy, esophagogastroduodenoscopy (EGD), or esophageal manometry if indicated

REFERENCES

1. Gu, C., et al. (2022). The American journal of gastroenterology, 117(10), 1655–1667.
2. Yuming, T., et al. (2023). Gastroenterology research and practice, 2023, 4645715.
3. Herdiana Y. (2023). Nutrients, 15(16), 3583.
4. Wu, K. L., et al. (2014). Journal of gastroenterology and hepatology, 29(3), 469–473.
5. Morozov, S., et al. (2018). World journal of gastroenterology, 24(21), 2291–2299.