



Gastroesophageal reflux disease (GERD) affects many individuals, with an estimated prevalence between 18.1% and 27.8% in North America.¹ The most common symptoms are heartburn and regurgitation. Patients may also experience chest pain, a sour taste in the mouth, chronic cough, chronic hoarseness, globus sensation, and dyspnea. In more severe cases, individuals may present with dysphagia, odynophagia, and anemia. Untreated GERD may develop into esophagitis and Barrett's esophagus.²⁻⁶

GERD generally develops from dysfunction in the lower esophageal sphincter (LES) that allows gastric acid to enter the esophagus. This may be due to physiologic and/or pathological underlying factors such as transient LES relaxations, reduced LES pressure, hiatal hernias, impaired esophageal clearance, hyposalivation, altered esophageal peristalsis, hypersensitivity to gastric acid, and delayed gastric emptying.²⁻⁶ 80% of GERD cases have an association to obesity as weight gain changes the "angle of His" in the stomach and cause LES issues.

The angle of His, also known as the esophagogastric angle, is the acute angle created between the cardia at the entrance to the stomach, and the esophagus. It helps to prevent acid reflux of stomach acid into the esophagus.

Diagnosis generally involves the presentation of classic

symptoms that respond to an acid suppression trial. Endoscopy, ambulatory pH monitoring, or other tests may also be utilized, especially when more serious symptoms are present and/or there is a high risk for complications. Conventional treatment generally involves dietary and lifestyle changes combined with medication.²⁻⁶

This clinical protocol is designed to support normal gastric acid production and healthy digestion to help patients who have GERD through evidence-based dietary, lifestyle, and nutritional recommendations.*

Diagnostic Biomarkers and Clinical Indicators of GERD

- Upper gastrointestinal endoscopy^{7,8}
- Ambulatory pH monitoring
 - Carbonation
 - <4%: Normal
 - Between 4% and 6%: Inconclusive
 - >6%: Abnormal
 - Reflux episodes
 - <40 per 24 hours: Normal
 - Between 40 and 80 per 24 hours: Inconclusive
 - >80 per 24 hours: Abnormal
- Body Mass Index
 - Overweight: 25 to 29.9
 - Obese: 30 to 34.9
 - Extremely obese: >35

Therapeutic Diet and Nutritional Considerations

- Recommend a trial elimination of common trigger foods and beverages, such as:^{4,9,10}
 - Carbonation
 - Chocolate
 - Citrus
 - Coffee
 - Fatty foods
 - Onion
 - Peppermint
 - Spicy foods
 - Tomatoes
 - Garlic
- Recommend an eating pattern that is high in fruits, vegetables, and dietary fiber, and low in sodium and fat (especially saturated fat), as studies have found this type of eating pattern to be protective against reflux, which reduced the risk of GERD symptoms^{9,11,12}
- Advise adoption of an eating pattern similar to the Mediterranean diet, which has been shown to reduce the risk of GERD¹³
- Counsel patients on ways to consume smaller meals and chew foods thoroughly to reduce the risk of reflux⁴
- Recommend avoidance of late-night meal consumption, especially within 3 hours before bed, as this has been shown to reduce night-time reflux episodes^{4,14}

Lifestyle Interventions

- Instruct patients to avoid lying down for 2 hours after eating and to raise the head of the bed when sleeping, as this has been shown to reduce reflux episodes especially at night^{4,10,14}
- Provide strategies for smoking cessation, as tobacco use is associated with increased instances of GERD^{11,14}
- Advise adoption or increase in physical activity, as exercise has been found to be correlated with a decrease in reflux symptoms^{11,15}
- Acupuncture may help modulate stomach acid secretion, stimulate stomach emptying, and support other GI issues*
- Recommend reducing or avoiding alcohol intake, as it may reduce LES tone and gastric motility, increasing the risk of triggering reflux and associated symptoms¹⁰
- Counsel on improving sleep, as sleep deficiency has been found to increase esophageal acid exposure and may increase the risk of reflux episodes¹⁶
- Recommend diaphragm breathing exercises, as they may improve LES pressure, anti-reflux barrier function, and GERD symptoms^{17,18}



Supplement Protocol

Primary Support:



GastroMend-HP™

Dose	2 capsules twice per day on an empty stomach	Duration	Ongoing as needed
Formula Highlights	GastroMend-HP™ is a blend of botanical extracts that supports a healthy gastric microbial balance and helps maintain a healthy gastric mucosa. This formula may be helpful for occasional heartburn, bloating, or upset stomach.*		

DGL Synergy™

Dose	Chew 2 tablets between meals or 20 minutes before meals	Duration	Ongoing as needed
Formula Highlights	DGL Synergy™ is a chewable formula of deglycyrrhizated licorice (DGL) that offers support for the gastric mucosa.* It contains a standardized high-quality form of DGL, the amino acid glycine, and calcium in the form of calcium glycerophosphate. DGL Synergy™ has a pleasant licorice flavor and is fructose and sugar-free. It is sweetened with xylitol and mannitol polyols, and the plant extract luo han guo.		

Aloe/200x™

Dose	1 capsule twice per day on an empty stomach	Duration	Ongoing as needed
Formula Highlights	The name Aloe/200x™ refers to the fact that it takes 200 pounds of the aloe vera inner gel fillets to make 1 pound of this nourishing aloe extract. This concentrated aloe is made with the intent to retain as much of the plant's natural makeup as possible. The low-heat dehydration system ensures that the long polysaccharide chains remain intact, as they are found in nature. The longer the polysaccharide chain, the more effective it is at supporting immune function.*		

Melatonin SRT™

Dose	1 tablet 20 minutes before bedtime	Duration	Ongoing as needed
Formula Highlights	Melatonin SRT™ provides 6 mg of the hormone melatonin in a sustained-release tablet. As a supplement, melatonin is useful for regulating sleep and the body's daily rhythmic cycle.* Due to melatonin's relatively short half-life in the body, a sustained release formula may be more suitable for those who experience difficulty staying asleep through the night.		

Secondary Support:

B-Supreme

Dose	1 capsule per day with a meal	Duration	Ongoing as needed
Formula Highlights	A potent combination of B-complex vitamins supplied mostly in their coenzyme forms for superior absorption and bioavailability to support B vitamin status, especially to help prevent medication-induced nutrient deficiency and GERD-related complications.*		

For a list of references cited in this document, please visit:

<https://www.designsforhealth.com/api/library-assets/literature-reference---gerd-protocol-references>

Dosing recommendations are given for typical use based on an average 150 pound healthy adult. Health-care practitioners are encouraged to use clinical judgement with case-specific dosing based on intended goals, subject body weight, medical history, and concomitant medication and supplement usage. Any product containing botanical substances has the potential for causing individual sensitivities, appropriate monitoring, including liver function tests (LFT) is recommended.

For considerations regarding herb-drug and nutrient-drug interactions, please refer to reliable, evidence-based resources such as the Natural Medicine Database or Stargrove MB, Treasure J, McKee DL. *Herb, Nutrient, and Drug Interactions: Clinical Implications and Therapeutic Strategies*. St. Louis, MO: Mosby-Elsevier; 2008.

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