



# INTRODUCTION TO **GERD**

Definition, Clinical Criteria, Diagnostic  
Tools, and Integrative Approaches



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# What is GERD?

Gastroesophageal Reflux Disease (GERD) is a chronic condition in which contents from the stomach—acid, bile, enzymes, and partially digested food—flow backward (reflux) into the esophagus, causing irritation, inflammation, and a range of symptoms. GERD is more than just heartburn; it reflects deeper dysfunction in the digestive system that can have many root causes.

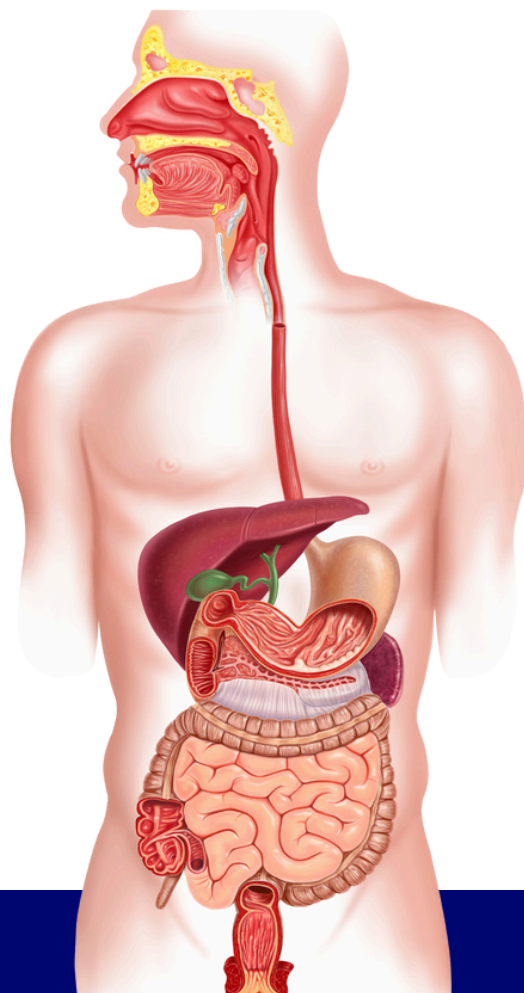
From a functional medicine and naturopathic perspective, GERD is viewed not merely as an acid-excess issue, but as a multi-factorial problem involving poor motility, microbial imbalances, mucosal integrity, and digestive insufficiency.

## Symptom Assessment

The initial step typically includes an evaluation of symptoms like heartburn, regurgitation, and dysphagia (difficulty swallowing). A healthcare provider may inquire about how often these symptoms occur, their duration, and their intensity.

## Medical History

A comprehensive medical history is essential to eliminate other conditions that may resemble GERD symptoms. Factors such as prior medication use, lifestyle choices, and family history are also taken into account.





## Conventional Diagnostic Tools

### Upper Endoscopy (EGD)

A flexible camera-equipped tube is passed through the throat to inspect the esophagus, stomach, and duodenum. This helps detect:

- Esophagitis (inflammation)
- Ulceration
- Barrett's esophagus (pre-cancerous changes)
- Hiatal hernia

It is often used when:

- Symptoms are severe or persistent
- Alarm features like dysphagia (difficulty swallowing), anemia, weight loss, or bleeding are present

### 24–48 Hour pH Monitoring

This test tracks acid levels in the esophagus via a small catheter or wireless capsule (Bravo). It identifies:

- Frequency and duration of reflux events
- Association with symptoms (e.g., cough, chest pain, regurgitation)

### Esophageal Manometry

Measures the strength and coordination of the esophageal muscles and LES (lower esophageal sphincter) during swallowing. Useful for ruling out:

- Achalasia
- Nutcracker esophagus
- Ineffective esophageal motility

### Barium Swallow Radiograph

Involves drinking a contrast solution and taking a series of X-rays. Helps visualize:

- Anatomical abnormalities
- Hiatal hernia
- Esophageal strictures or delayed emptying

### Other Specialized Tests

- Impedance Monitoring: Detects non-acidic reflux, including bile and pepsin flow.
- Bernstein Test: Instills acid into the esophagus to see if it reproduces symptoms—rarely used now, but may help differentiate GERD from functional heartburn.



# Functional & Naturopathic Diagnostic Approaches

These tests seek to uncover root causes often missed by conventional diagnostics.

## GI-MAP or Comprehensive Stool Analysis

These tests evaluate:

- H. pylori (and its virulence factors like CagA, VacA)
- Dysbiosis or pathogen overgrowth
- Pancreatic function (elastase)
- Steatocrit (fat in stool) to assess bile and enzyme sufficiency
- Beta-glucuronidase, inflammatory markers, sIgA

Relevance:

- Identifies H. pylori suppression of acid
- Detects inflammation that weakens the esophageal barrier
- Reveals low mucosal immunity, which increases reflux risk

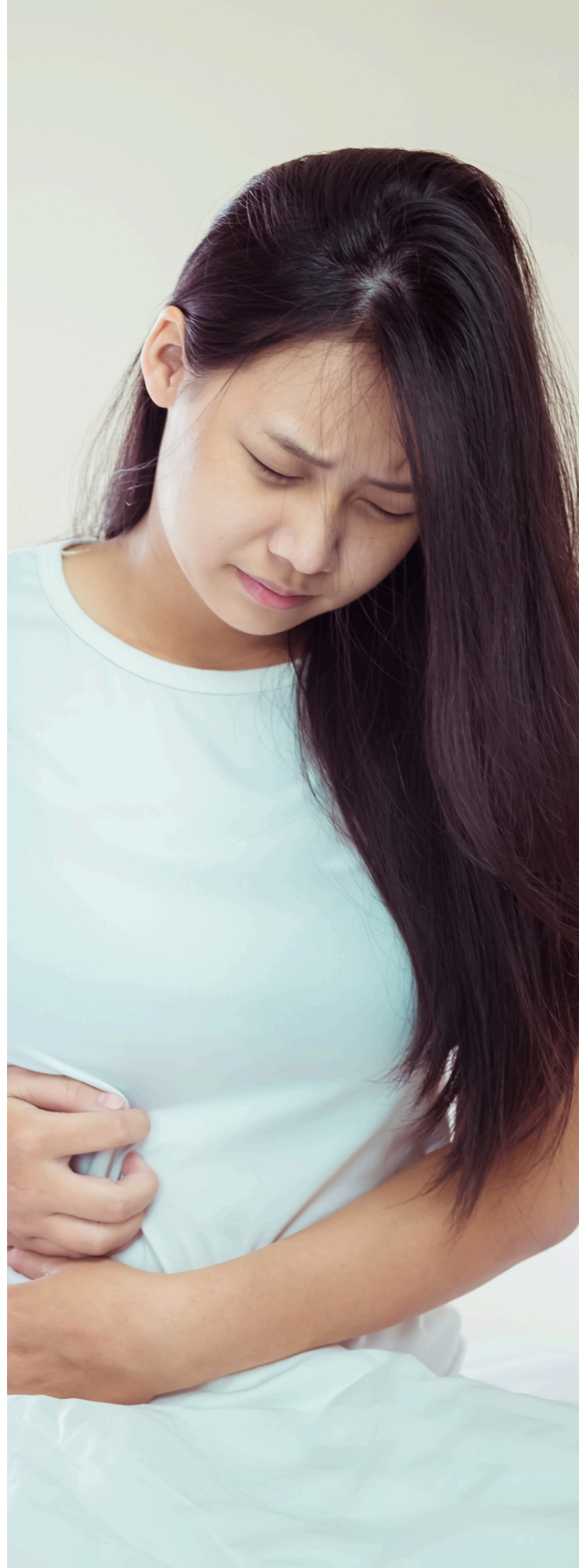
## SIBO Breath Test

Assesses overgrowth of hydrogen- or methane-producing bacteria in the small intestine. Especially useful in:

- Patients with bloating, burping, GERD, and constipation or diarrhea
- Those who feel worse after starches or fiber

Relevance:

- SIBO contributes to gas buildup and increased intra-abdominal pressure, a key mechanical driver of reflux.





# Functional & Naturopathic Diagnostic Approaches

## Organic Acids Test (OAT)

Measures byproducts of microbial fermentation, mitochondrial function, detoxification capacity, and nutrient metabolism.

Key clues:

- Elevated benzoate, hippurate (gut dysbiosis)
- Low B vitamins (needed for mucosal healing)
- Yeast/fungal markers (e.g., arabinose)
- Indicators of motility dysfunction

## Zinc and B12 Testing

Low levels are commonly seen in chronic PPI users and are associated with:

- Weak gastric acid production
- Delayed wound healing of the esophageal lining

## Serum Gastrin & Pepsinogen Testing

- High gastrin may suggest achlorhydria
- Pepsinogen I/II ratio may indicate atrophic gastritis

## Thyroid and Adrenal Panels

- Hypothyroidism can reduce gastric motility and LES tone
- Adrenal dysfunction impacts mucosal healing and vagal tone
- Adrenal dysfunction impacts mucosal healing and vagal tone





## Clinical Criteria for a GERD Diagnosis

Gastroesophageal Reflux Disease (GERD) is typically diagnosed based on a combination of clinical symptoms, response to treatment, and confirmatory testing when needed.

### Clinical Definition

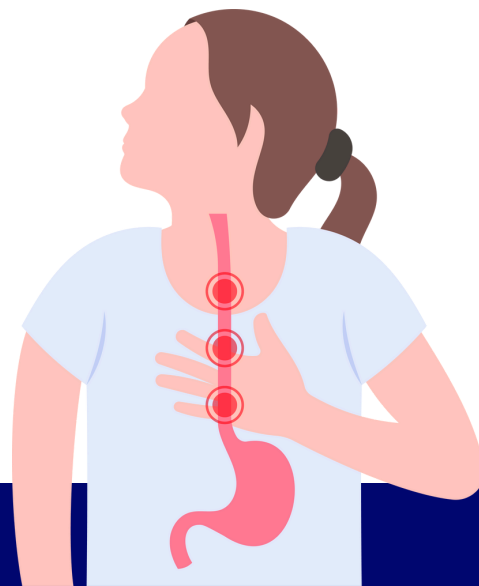
According to the Montreal Consensus and Rome IV criteria, GERD is defined as:

- The presence of troublesome reflux symptoms (heartburn and/or regurgitation) occurring two or more times per week
- And/or mucosal damage confirmed by endoscopy.

These symptoms must impact quality of life or result in complications such as esophagitis, Barrett's esophagus, or respiratory manifestations.

### Key Diagnostic Indicators

- Heartburn (burning sensation behind the sternum) or regurgitation persisting for  $\geq 4$ –8 weeks
- Symptom improvement with acid-suppressing therapy, such as proton pump inhibitors (PPIs), is suggestive—but not definitive, as non-acid reflux or placebo effect may influence response
- Exclusion of alarm features (see below) that would require further workup or specialist referral





# Differential Diagnosis Within the Reflux Spectrum

It's important to recognize that not all reflux-like symptoms are caused by classic acid GERD. Differentiating these presentations helps determine appropriate treatment approaches.

## **GERD (Erosive or Non-Erosive)**

- Reflux of stomach contents into the esophagus
- May cause erosive esophagitis, or remain non-erosive but still symptomatic
- Often linked to LES dysfunction, delayed gastric emptying, or abdominal pressure

## **Functional Heartburn**

- Symptoms mimic GERD (burning, discomfort) but no acid exposure or inflammation is detected
- Normal esophageal pH and motility studies
- Often driven by visceral hypersensitivity, stress, or altered pain perception

## **Laryngopharyngeal Reflux (LPR or Silent Reflux)**

- Reflux affects the throat, vocal cords, or upper airway
- Often no heartburn is present
- Symptoms may include chronic cough, throat clearing, hoarseness, or post-nasal drip
- More difficult to diagnose—often treated empirically

## **Red Flag Symptoms Requiring Urgent Referral**

Even when pursuing a functional or naturopathic approach, it's essential to recognize when additional investigation or referral to a gastroenterologist is appropriate:

- Unintentional weight loss
- Difficulty swallowing (dysphagia) or pain with swallowing (odynophagia)
- Persistent vomiting, especially if food or blood is present
- Black, tarry stools (melena) or vomiting blood (hematemesis)
- Persistent cough, laryngitis, or unexplained asthma-like symptoms
- Iron-deficiency anemia of unknown cause
- Symptoms that worsen despite treatment or recur immediately after stopping medications

*These may indicate serious complications such as ulcers, strictures, Barrett's esophagus, or esophageal cancer.*



# GERD as a Systemic, Multifactorial Condition

While GERD is often viewed as a localized esophageal issue, a functional and naturopathic perspective considers broader systemic contributors:

- Low stomach acid (hypochlorhydria) → poor digestion and LES dysfunction
- Gut-brain axis dysregulation → stress and vagal tone influence motility
- Hormonal imbalances → estrogen dominance or hypothyroidism can delay gastric emptying
- Mitochondrial insufficiency → energy-dependent processes like digestion and sphincter control are compromised
- Immune activation and inflammation → chronic low-grade inflammation affects tissue repair and barrier function
- Microbiome imbalances → SIBO, H. pylori, and dysbiosis may increase gas pressure and inflammation

Recognizing these connections helps move beyond symptom suppression and toward personalized root-cause resolution—the hallmark of functional and naturopathic care.







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