

Understanding & Managing GERD

A Patient Guide to Acid Reflux and Heartburn

What Is GERD?

Gastroesophageal reflux disease (GERD) happens when stomach acid and contents flow backward into the esophagus (the tube connecting your mouth to your stomach) often enough to cause symptoms or damage. This produces the classic symptoms of heartburn (a burning sensation behind the breastbone) and regurgitation, though GERD can also cause chronic cough, hoarseness, throat clearing, or chest discomfort that mimics other conditions.

What Causes GERD?

Between your esophagus and stomach is a ring of muscle called the lower esophageal sphincter (LES), which normally acts like a one-way valve — staying closed to keep stomach contents where they belong. GERD develops when this valve doesn't do its job properly, which usually happens in one or both of these ways:

- **The valve relaxes at the wrong times.** The LES is supposed to open briefly to let food pass, then close. In GERD, it also relaxes at random, unrelated times — called transient LES relaxations — allowing acid to escape upward.
- **The valve itself is weakened.** Chronically low pressure in the LES makes it easier for acid to push through, similar to a door that doesn't latch firmly.
- **A hiatal hernia is present.** This is when part of the stomach pushes up through the diaphragm into the chest, which can displace and weaken the LES, making reflux more likely.

Several other factors make these problems more likely or worse: excess weight or abdominal pressure (including pregnancy), slow stomach emptying, smoking, and certain foods or medications that relax the LES or increase acid production. None of these mean anything is permanently or seriously “wrong” with your body — they're mechanical and physiological factors that treatment is aimed at directly.

How GERD Is Treated

Treatment usually combines acid-suppressing medication with diet and lifestyle changes, and sometimes additional therapies for symptoms that don't fully resolve. Below, we've grouped the options we commonly discuss, along with the evidence behind each. A few terms come up often below: a study “compared to a dummy pill (placebo)” means some patients got the real treatment and others a fake version, without knowing which, so researchers could tell whether the treatment itself was really working. A “review” or study that “combines” several trials means researchers pooled data from multiple separate studies to get a more reliable answer. An “observational” study just watches what happens to patients over time, without assigning who gets which treatment — useful, but less definitive than a placebo-controlled trial. And “erosive esophagitis” simply means visible irritation or damage to the esophagus lining from acid, the kind of damage acid-suppressing medication helps heal.

Acid-Suppressing Medications

Goal: reduce the amount of acid available to reflux and allow the esophagus to heal.

- **Antacids** (e.g., Tums/calcium carbonate) — chewed as needed for breakthrough symptoms.

Evidence: Neutralizes acid almost immediately, but the effect only lasts about 40–60 minutes, so it's best suited to occasional symptoms rather than as a daily standalone therapy — it doesn't heal irritation in the esophagus the way the medications below do. Unlike some other antacids, calcium carbonate doesn't appear to cause a rebound effect afterward (a burst of extra acid production once it wears off).

- **Proton pump inhibitors (PPIs)** — e.g., omeprazole, pantoprazole, esomeprazole; taken 30–60 minutes before a meal, usually once daily.

Evidence: The most effective, best-studied medication class for healing a damaged esophagus lining; first-line therapy in essentially all GERD guidelines. Long-term use has been linked in studies that tracked patients over time to small increased risks of bone fracture, B12 deficiency, and kidney problems — not proven to be caused by the drug itself, but worth discussing if you've been on one long-term, to confirm you're on the lowest effective dose.

- **H2 blockers** (e.g., famotidine) — 20 mg twice daily for GERD; also available over-the-counter at lower doses.

Evidence: Effective, especially for milder or intermittent symptoms, and useful for fast-acting relief or add-on nighttime dosing. A key limitation: the body stops responding as well within about 6 weeks of regular use, so effectiveness fades with continuous daily use — making these better suited to as-needed or short-term use than PPIs are.

- **PCABs (potassium-competitive acid blockers)**, e.g., vonoprazan — a newer class, FDA-approved for GERD, that blocks acid production through a different mechanism than PPIs.

Evidence: Studies comparing it directly to PPIs show PCABs act faster and more potently, with better healing rates specifically for more severe esophagus damage, while having a similar short-term safety profile. Longer-term safety data is still more limited than for PPIs, simply because PCABs are newer to market.

Alginate Therapy

Goal: physically block reflux, especially after meals and at night.

- **Alginates** (e.g., Gaviscon Advance/Double Action) — taken after meals and at bedtime; work differently from acid-suppressing medications.

Evidence: Alginates react with stomach acid to form a floating gel "raft" that sits on top of stomach contents, physically blocking reflux at the valve between the stomach and esophagus. A review combining 15 studies (over 2,000 patients) found alginates significantly improved symptoms compared to a dummy pill or plain antacids. In patients still having symptoms despite a once-daily PPI, adding an alginate provided significantly better relief than adding a dummy pill — making this a useful add-on rather than a replacement for acid suppression in most cases.

Diet and Lifestyle Measures

Goal: reduce how often and how severely reflux occurs.

- **Weight loss** (if applicable) — even a modest amount.

Evidence: The best-supported lifestyle change for GERD. A randomized trial found meaningful symptom improvement with an average of about 10 lbs of weight loss; in other studies, weight loss in patients with overweight cut GERD prevalence roughly in half, with about two-thirds achieving complete symptom resolution.

- **Head-of-bed elevation** — raising the head of the bed 6–12 inches (a wedge or bed risers work better than stacking pillows), for nighttime symptoms specifically.

Evidence: A review combining several controlled trials found meaningful symptom improvement with this approach for nighttime reflux; considered a low-cost, low-risk option, though the overall quality of the trials behind it is moderate rather than definitive.

- **Sleeping on your left side**, for nighttime symptoms.

Evidence: A review of multiple studies, plus a randomized trial using a fake (sham) version of the positioning device for comparison, both found left-side sleeping reduces nighttime acid exposure and improves nighttime symptoms, compared to sleeping on the right side or back. Pairs well with head-of-bed elevation.

- **Quitting smoking**, if applicable.

Evidence: Smoking relaxes the LES and is a well-established contributor to reflux; cessation is a reasonable, low-risk step with broad health benefits beyond GERD.

- **Avoiding trigger foods** — commonly citrus, coffee, chocolate, fried or spicy food, and red sauces, though triggers are individual.

Evidence: Mixed evidence: some elimination approaches helped, and low-carb or plant-forward eating patterns reduced acid exposure in some studies. But evidence tying specific foods to reflux is generally weaker than for weight loss, so this is worth individualizing rather than following a rigid list.

- **Avoiding meals within 2–3 hours of lying down**, and not overeating in one sitting.

Evidence: Standard clinical recommendation based on how reflux physically occurs (lying down with a full stomach increases reflux events); less directly tested in trials than weight loss or head-of-bed elevation, but low-risk and consistent with how GERD works mechanically.

- **Chewing sugar-free gum** for 20–30 minutes after meals.

Evidence: Increases saliva production, which helps neutralize and clear acid from the esophagus. One trial found it reduced acid exposure time after meals by roughly a third. A simple, low-risk adjunct, though evidence is limited to a small number of studies.

Diaphragmatic Breathing and Other Adjuncts

Goal: strengthen the body's own anti-reflux barrier, or add options for symptoms that persist.

- **Diaphragmatic breathing exercises** — a structured breathing practice using the diaphragm (the muscle that also forms part of the anti-reflux barrier), typically done daily for several weeks.

Evidence: Emerging randomized trials found real improvement in symptom frequency, severity, and quality of life versus usual care alone, with one trial showing a stronger valve after training. Promising, but current studies are still small and varied enough that this is considered a reasonable adjunct rather than a proven stand-alone treatment yet.

- **DGL (deglycyrrhized licorice)** — a form of licorice with the blood-pressure-raising compound removed, taken as a chewable or capsule before meals.

Evidence: A trial of 200 patients comparing it to a dummy pill found clinically meaningful improvement in heartburn, regurgitation, and quality of life starting around 2 weeks in. Trials have generally only run 4–12 weeks, so evidence for regular use beyond that isn't yet established.

- **Baclofen** — a prescription muscle relaxant, sometimes used in a way it wasn't originally approved for (but supported by research) when reflux doesn't fully respond to standard therapy.

Evidence: Works differently — directly reduces how often the valve relaxes at the wrong times (described earlier). Trial data show fewer reflux episodes and a stronger valve afterward, generally well tolerated short-term, but reserved for persistent cases given its side effects (drowsiness, dizziness).

When Medication Isn't Enough: Procedural Options

For reflux that doesn't respond adequately to medication, or for patients who'd rather not stay on medication long-term, a few procedural options exist. These are individualized decisions made together with a specialist, not something to pursue on your own, but it's worth knowing they're available:

Evidence: Laparoscopic fundoplication (wrapping part of the stomach around the LES to reinforce it) is the longest-established surgical option with the most long-term data. LINX (a ring of magnetic beads placed around the LES) is a newer option with short-term outcomes comparable to fundoplication, and an advantage in preserving the ability to belch or vomit normally afterward — though it has less long-term data than fundoplication. Transoral incisionless fundoplication (TIF) reconstructs part of the valve using a thin camera-tipped tube passed through the mouth, with no external cuts at all. It's best suited to patients with a smaller or absent hiatal hernia who aren't significantly overweight. Longer-term studies show lasting symptom relief and reduced need for medication in roughly 70–80% of patients up to 9 years later, though it's generally considered less definitive than surgery for larger hiatal hernias.

When to Contact Our Office

- Difficulty or pain with swallowing, unintended weight loss, or vomiting blood or coffee-ground material
- Symptoms that don't improve after a few weeks of treatment, or that return quickly after stopping medication
- New symptoms starting after age 50, or a family history of esophageal or stomach cancer
- Before starting, stopping, or combining any medication or supplement in this guide, especially if you take other medications

This guide supports your personalized plan and isn't a substitute for individualized medical advice. Check with your provider before starting, stopping, or combining anything mentioned here.

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