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Heartburn/GERD Health Center



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Gastroesophageal Reflux Disease (GERD)

In this article

[What Is Gastroesophageal Reflux?](#)

[What Is the Role of Hiatal Hernia in GERD?](#)

[What Other Factors Contribute to GERD?](#)

[What Are the Symptoms of Heartburn?](#)

[How Common Is Heartburn and GERD?](#)

[What Is the Treatment for GERD?](#)

[What If Heartburn or GERD Symptoms Persist?](#)

[Does GERD Require Surgery?](#)

[What Are the Complications of Long-Term GERD?](#)

[The Outlook for GERD](#)

Gastroesophageal reflux disease, or GERD, is a digestive disorder that affects the lower esophageal sphincter (LES), the ring of muscle between the [esophagus](#) and [stomach](#). Many people, including [pregnant](#) women, suffer from [heartburn](#) or acid [indigestion](#) caused by GERD. Doctors believe that some people suffer from GERD due to a condition called [hiatal hernia](#). In most cases, [heartburn](#) can be relieved through diet and lifestyle changes; however, some people may require [medication](#) or surgery.

What Is Gastroesophageal Reflux?

Gastroesophageal refers to the stomach and esophagus. Reflux means to flow back or return. Therefore gastroesophageal reflux is the return of the stomach's contents back up into the esophagus.

In normal digestion, the lower esophageal sphincter (LES) opens to allow food to pass into the stomach and closes to prevent food and acidic stomach juices from flowing back into the esophagus. Gastroesophageal reflux occurs when the LES is weak or relaxes inappropriately, allowing the stomach's contents to flow up into the esophagus.

The severity of GERD depends on LES dysfunction as well as the type and amount of fluid brought up from the stomach and the neutralizing effect of [saliva](#).

What Is the Role of Hiatal Hernia in GERD?

Some doctors believe a hiatal hernia may weaken the LES and increase the risk for gastroesophageal reflux. Hiatal hernia occurs when the upper part of the stomach moves up into the chest through a small opening in the diaphragm (diaphragmatic hiatus). The diaphragm is the muscle separating the [abdomen](#) from the chest. Recent studies show that the opening in the diaphragm helps the support lower end of the esophagus. Many people with a hiatal hernia will not have problems with [heartburn](#) or reflux. But having a hiatal [hernia](#) may allow stomach contents to reflux more easily into the esophagus.

[Coughing](#), [vomiting](#), straining, or sudden physical exertion can cause increased pressure in the abdomen resulting in hiatal hernia. [Obesity](#) and pregnancy also contribute to this condition. Many otherwise healthy people age 50 and over have a small hiatal hernia. Although considered a condition of middle age, hiatal hernias affect people of all ages.

Hiatal hernias usually do not require treatment. However, treatment may be necessary if the hernia is in danger of becoming strangulated (twisted in a way that cuts off [blood](#) supply, called a paraesophageal hernia) or is complicated by severe GERD or [esophagitis](#) (inflammation of the esophagus). The doctor may perform surgery to reduce the size of the hernia or to prevent strangulation.

What Other Factors Contribute to GERD?

Dietary and lifestyle choices may contribute to GERD. Certain foods and beverages, including [chocolate](#), peppermint, fried or fatty foods, coffee, or [alcoholic](#) beverages, may trigger reflux and [heartburn](#). Studies show that cigarette [smoking](#) relaxes the LES. [Obesity](#) and pregnancy can also play a role in [GERD symptoms](#).

What Are the Symptoms of Heartburn?

Heartburn, also called acid [indigestion](#), is the most common symptom of GERD and usually feels like a burning [chest pain](#) beginning behind the breastbone and moving upward to the neck and throat. Many people say it feels like food is coming back into the [mouth](#) leaving an acid or bitter taste.

The burning, pressure, or pain of heartburn can last as long as 2 hours and is often worse after eating. Lying down or bending over can also result in heartburn. Many people obtain relief by standing upright or by taking an antacid that clears acid out of the esophagus.

Heartburn pain can be mistaken for the pain associated with [heart disease](#) or a [heart attack](#), but there are differences. [Exercise](#) may aggravate pain resulting from [heart disease](#), and rest may relieve the pain. Heartburn pain is less likely to be associated with [physical activity](#).

How Common Is Heartburn and GERD?

More than 60 million American adults experience heartburn at least once a month, and more than 15 million adults suffer daily from heartburn. Many pregnant women experience daily heartburn. Recent

studies show that GERD in infants and children is more common than previously recognized and may produce [recurrent vomiting](#), [coughing](#), and other respiratory problems.

What Is the Treatment for GERD?

Doctors recommend lifestyle and dietary changes for most people needing treatment for GERD. Treatment aims at decreasing the amount of reflux or reducing damage to the lining of the esophagus from refluxed materials.

Avoiding foods and beverages that can weaken the LES is often recommended. These foods include [chocolate](#), peppermint, fatty foods, coffee, and alcoholic beverages. Foods and beverages that can irritate a damaged esophageal lining, such as citrus fruits and juices, tomato products, and pepper, should also be avoided if they cause symptoms.

What Is the Treatment for GERD? continued...

Decreasing the size of portions at mealtime may also help control symptoms. Eating meals at least 2 to 3 hours before [bedtime](#) may lessen reflux by allowing the acid in the stomach to decrease and the stomach to empty partially. In addition, being overweight often worsens symptoms. Many overweight people find relief when they lose [weight](#).

Cigarette [smoking](#) weakens the LES. Stopping [smoking](#) is important to reduce GERD symptoms.

Elevating the head of the bed on 6-inch blocks or sleeping on a specially designed wedge reduces heartburn by allowing gravity to minimize reflux of stomach contents into the esophagus. Do not use pillows to prop yourself up; that only increases pressure on the stomach.

Along with lifestyle and diet changes, your doctor may recommend over-the-counter or prescription treatments.

Antacids can help neutralize acid in the esophagus and stomach and stop heartburn. Many people find that nonprescription antacids provide temporary or partial relief. An antacid combined with a foaming agent helps some people. These compounds are believed to form a foam barrier on top of the stomach that prevents [acid reflux](#) from occurring.

Long-term use of antacids, however, can result in side effects, including [diarrhea](#), altered [calcium metabolism](#) (a change in the way the body breaks down and uses [calcium](#)), and buildup of [magnesium](#) in the body. Too much magnesium can be serious for patients with [kidney disease](#). If antacids are needed for more than 2 weeks, a doctor should be consulted.

For chronic reflux and heartburn, the doctor may recommend medications to reduce acid in the stomach. These medicines include H2 blockers, which inhibit acid secretion in the stomach. H2 blockers include: [cimetidine \(Tagamet\)](#), [famotidine \(Pepcid\)](#), nizatidine ([Axid](#)), and [ranitidine \(Zantac\)](#).

Another type of drug, the proton pump inhibitor (or acid pump), inhibits an enzyme (a protein in the acid-producing cells of the stomach) necessary for acid secretion. Some proton pump inhibitors include

esomeprazole (Nexium), lansoprazole (Prevacid), omeprazole (Prilosec), pantoprazole (Protonix), rabeprazole (Aciphex), dexlansoprazole (Dexilant) and omeprazole/ sodium bicarbonate (Zegerid).

Other approaches to therapy will increase the strength of the LES and quicken emptying of stomach contents with motility drugs that act on the upper gastrointestinal (GI) tract. These drugs include bethanechol (Urecholine) and metoclopramide (Reglan).

What If Heartburn or GERD Symptoms Persist?

People with severe, chronic esophageal reflux or with symptoms not relieved by the treatments described above may need more complete diagnostic evaluation. Doctors use a variety of tests and procedures to examine a patient with chronic heartburn.

An [upper GI](#) series may be performed during the early phase of testing. This test is a special X-ray that shows the esophagus, stomach, and duodenum (the upper part of the small intestine). While an upper GI series provides limited information about possible reflux, it is used to help rule out other diagnoses, such as [peptic ulcers](#).

Endoscopy is an important procedure for individuals with chronic GERD. By placing a small lighted tube with a tiny video camera on the end (endoscope) into the esophagus, the doctor may see inflammation or irritation of the tissue lining the esophagus (esophagitis). If the findings of the endoscopy are abnormal or questionable, [biopsy](#) (removing a small sample of tissue) from the lining of the esophagus may be helpful.

Esophageal manometric and impedance studies -- pressure measurements of the esophagus -- occasionally help identify low pressure in the LES or abnormalities in esophageal muscle contraction.

For patients in whom diagnosis is difficult, doctors may measure the acid levels inside the esophagus through pH testing. Testing pH monitors the acidity level of the esophagus and symptoms during meals, activity, and [sleep](#). Newer techniques of long-term pH monitoring are improving diagnostic capability in this area.

Does GERD Require Surgery?

A small number of people with GERD may need surgery because of severe reflux and poor response to medical treatment. However, surgery should not be considered until all other measures have been tried. Fundoplication is a surgical procedure that increases pressure in the lower esophagus. Endoscopic procedures that involve making the LES function better or using electrodes to promote scarring of the LES are newer options in treatment.

What Are the Complications of Long-Term GERD?

Sometimes GERD results in serious complications. Esophagitis can occur as a result of too much stomach acid in the esophagus. Esophagitis may cause esophageal bleeding or ulcers. In addition, a narrowing or stricture of the esophagus may occur from chronic scarring. Some people develop a condition known as [Barrett's esophagus](#). This condition can increase the risk of [esophageal cancer](#).

The Outlook for GERD

Although GERD can limit daily activities and productivity, it is rarely life-threatening. With an understanding of the causes and proper treatment, most people will find relief.

WebMD Medical Reference

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- 1 [Basics & Triggers](#)
- 2 [Symptoms & Prevention](#)
- 3 [Diagnosis & Tests](#)
- 4 [Treatment & Care](#)
- 5 [Living & Managing](#)
- 6 [Support & Resources](#)

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