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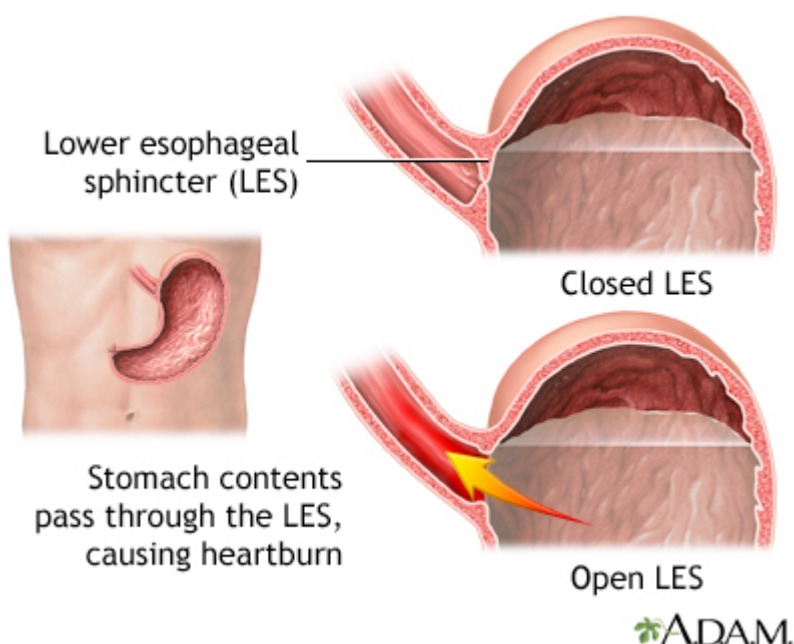
## Gastroesophageal reflux disease

Gastroesophageal reflux disease (GERD) is a condition in which the stomach contents leak backward from the stomach into the esophagus (food pipe). Food travels from your mouth to the stomach through your esophagus. GERD can irritate the food pipe and cause heartburn and other symptoms.

### Causes

When you eat, food passes from the throat to the stomach through the esophagus. A ring of muscle fibers in the lower esophagus prevents swallowed food from moving back up. These muscle fibers are called the lower esophageal sphincter (LES).

When this ring of muscle does not close all the way, stomach contents can leak back into the esophagus. This is called reflux or gastroesophageal reflux. Reflux may cause symptoms. Harsh stomach acids can also damage the lining of the esophagus.



The risk factors for reflux include:

- Use of alcohol (possibly)
- Hiatal hernia (a condition in which part of the stomach moves above the diaphragm, which is the muscle that separates the chest and abdominal cavities)
- Obesity
- Pregnancy

- Scleroderma
- Smoking or tobacco use
- Lying down within 3 hours after eating

Heartburn and gastroesophageal reflux can be caused by or made worse by pregnancy. Symptoms can also be caused by certain medicines, such as:

- Anticholinergics (for example, sea sickness medicine)
- Beta-blockers for high blood pressure or heart disease
- Bronchodilators for asthma or other lung diseases
- Calcium channel blockers for high blood pressure
- Dopamine-active medicines for Parkinson disease
- Progestin for abnormal menstrual bleeding or birth control
- Sedatives for insomnia or anxiety
- Theophylline (for asthma or other lung diseases)
- Tricyclic antidepressants

Talk to your health care provider if you think one of your medicines may be causing heartburn. Never change or stop taking a medicine without first talking to your provider.



Watch this video about:  
Heartburn

## Symptoms

Typical symptoms of GERD are:

- Heartburn or a burning pain in the chest
- Bringing food back up (regurgitation)

Less common symptoms are:

- Nausea after eating
- Cough or wheezing
- Difficulty swallowing (make sure to discuss this with your provider)
- Hiccups
- Hoarseness or change in voice
- Sore throat

Symptoms may get worse when you bend over or lie down, or after you eat. Symptoms may also be worse at night.

## Exams and Tests

You may not need any tests if your symptoms are mild.

If your symptoms are severe or they come back after you have been treated, your provider may recommend a test called an upper endoscopy (esophagogastroduodenoscopy).

- This is a test to examine the lining of the esophagus, stomach, and first part of the small intestine.
- It is done with a small camera (flexible endoscope) that is inserted down the throat.

You may also be recommended to have one or more of the following tests:

- A test that measures how often stomach acid enters the esophagus. This can be done with a catheter through the nose or with a device clipped to the bottom of your esophagus during an upper endoscopy.
- A test to measure the pressure inside the lower part of the esophagus (esophageal manometry).
- A test to measure fluid and air coming up from the esophagus (impedance).

A positive stool occult blood test may diagnose bleeding that is coming from the irritation in the esophagus, stomach, or intestines.

## Treatment

You can make many lifestyle changes to help treat your symptoms such as avoiding tobacco, alcohol, or foods that cause your symptoms.

Other tips include:

- If you are overweight or obese, in many cases, losing weight can help.
- Raise the head of the bed if your symptoms get worse at night.
- Have your dinner 2 to 3 hours before going to sleep. Avoid eating food after dinner.
- Avoid medicines such as aspirin, ibuprofen (Advil, Motrin), or naproxen (Aleve, Naprosyn). Take acetaminophen (Tylenol) to relieve pain.
- Take all of your medicines with plenty of water. When your provider gives you a new medicine, ask whether it will make your heartburn worse.

You may use over-the-counter antacids after meals and at bedtime, although the relief may not last very long. Common side effects of antacids include diarrhea or constipation.

Other over-the-counter and prescription medicines can treat GERD. They work more slowly than antacids, but give you longer relief. Your pharmacist, provider, or nurse can tell you how to take these medicines.

- Proton pump inhibitors (PPIs) decrease the amount of acid produced in your stomach.
- H2 blockers also lower the amount of acid released in the stomach.
- Potassium competitive acid blockers (PCABs) are the newest medicines that decrease stomach acid.

Anti-reflux surgery may be an option for people whose symptoms do not go away with lifestyle changes and medicines. Heartburn and other symptoms should improve after surgery. But you may still need to take medicines for your heartburn. Your provider will recommend certain tests before any surgery for GERD to help you get the best outcome.

There are also new therapies for reflux that can be performed through an endoscope (a flexible tube passed through the mouth into the stomach).

## **Outlook (Prognosis)**

Most people respond to lifestyle changes and medicines. However, many people feel the need to continue taking medicines to control their symptoms. If you have inflammation from your GERD (esophagitis) or precancerous changes (Barrett esophagus), your provider may recommend staying on these medicines. Otherwise speak with your provider about whether you need to stay on medicines long term.

## **Possible Complications**

Complications may include:

- Worsening of asthma
- A change in the lining of the esophagus that can increase the risk of cancer (Barrett esophagus)
- Bronchospasm (irritation and spasm of the airways due to acid)
- Long-term (chronic) cough or hoarseness
- Dental problems
- Ulcer or inflammation in the esophagus
- Stricture (a narrowing of the esophagus due to scarring from chronic irritation)

## **When to Contact a Medical Professional**

Contact your provider if symptoms do not improve with lifestyle changes or medicine.

Also contact your provider if you have:

- Bleeding
- Choking (coughing, shortness of breath)
- Feeling filled up quickly when eating
- Frequent vomiting
- Hoarseness
- Loss of appetite
- Trouble swallowing (dysphagia) or pain with swallowing (odynophagia)
- Weight loss
- A feeling like food or pills are sticking behind the breast bone

# Prevention

Avoiding factors that cause heartburn may help prevent symptoms. Obesity is linked to GERD. Maintaining a healthy body weight may help prevent the condition.

# Alternative Names

Peptic esophagitis; Reflux esophagitis; GERD; Heartburn - chronic; Dyspepsia

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