

Gastroesophageal Reflux Disease (GERD)

Almost everyone has experienced heartburn. About 25 million American adults suffer daily from heartburn. It is that burning sensation felt behind the breastbone and sometimes in the neck and throat. Heartburn is caused by stomach acid refluxing or splashing up into the esophagus—the muscular tube that connects the throat to the stomach. Anyone who has heartburn on a regular basis should consult a physician. Constant exposure to stomach acid can irritate the lining of the esophagus and cause other medical problems. Serious heartburn is known as gastroesophageal reflux disease or GERD.

WHAT IS GASTROESOPHAGEAL REFLUX?

The esophagus carries food and liquid into the stomach. At the lower end of the esophagus where it enters the stomach, there is a strong muscular ring called the lower esophageal sphincter (LES). The LES should remain tightly closed, except to allow food and liquid to pass into the stomach. Reflux occurs when the LES is not working properly. It may relax for periods of time throughout the day and night, or it may be constantly too weak to function effectively. This allows the stomach's acid juice to flow back into the esophagus.

It is also common to find hiatal hernia in the setting of GERD. With a hiatal hernia, the top part of the stomach pushes upward into the chest cavity through a weakness of the diaphragm. The diaphragm is the thin, flat muscle that separates the chest from the abdomen. When the top part of the stomach is located above the diaphragm, stomach acid is retained there for a longer period of time and can easily reflux into the esophagus.

ACID REFLUX SYMPTOMS — Heartburn is experienced as a burning sensation in the center of the chest, which sometimes spreads to the throat; there also may be an acid taste in the throat. Less common symptoms include:

- Stomach pain (pain in the upper abdomen)
- Non-burning chest pain
- Difficulty swallowing or food getting stuck
- Painful swallowing
- Persistent laryngitis/hoarseness
- Persistent sore throat
- Chronic cough, new onset asthma, or asthma only at night
- Regurgitation of foods/fluids; taste of acid in the throat
- Sense of a lump in the throat
- Worsening dental disease
- Recurrent lung infections (called pneumonia)
- Chronic sinus inflammation
- Waking up with a choking sensation

When to seek help — The following signs and symptoms may indicate a more serious problem, and should be reported to a healthcare provider immediately:

- Difficulty or pain with swallowing (feeling that food gets "stuck")
- Unexplained weight loss
- Chest pain
- Choking
- Bleeding (vomiting blood or dark-colored stools)

ACID REFLUX DIAGNOSIS — Acid reflux is usually diagnosed based upon symptoms and the response to treatment. However, the doctor may order test to confirm finding and rule out complications.

Upper Endoscopy — An upper endoscopy is commonly used to evaluate the esophagus. A small, flexible tube is passed into the esophagus, stomach, and small intestine. The tube has a light source and a camera that displays magnified images. Damage to the lining of these structures can be evaluated and a small sample of tissue (biopsy) can be taken to determine the extent of tissue damage.

Esophageal pH study — An esophageal pH study is the most direct way to measure the frequency of acid reflux, although the study is not always helpful in diagnosing gastroesophageal reflux disease or reflux-associated problems. It is usually reserved for people whose diagnosis is unclear after endoscopy or a trial of treatment. It is also useful for people who continue to have symptoms despite treatment.

The test involves using a device that is attached to the esophagus and broadcasts pH information to a monitor worn outside of the body. This avoids the need for a tube in the esophagus and nose. The main disadvantage is that an endoscopy procedure is required to place the device (it does not require removal, but simply passes on its own in the stool).

Esophageal manometry — Esophageal manometry involves swallowing a tube that measures the muscle contractions of the esophagus. This can help to determine if the lower esophageal sphincter is functioning properly. This test is usually reserved for people in whom the diagnosis is unclear after other testing or in whom surgery for reflux disease is being considered.

ACID REFLUX COMPLICATIONS — A number of serious complications can arise in patients with gastroesophageal reflux disease when it is not appropriately managed by experts.

Ulcers — Ulcers can form in the esophagus as a result of burning from stomach acid. In some cases, bleeding occurs. You may not be aware of bleeding, but it may be detected in a stool sample to test for traces of blood that may not be visible.

Stricture — Damage from acid can cause the esophagus to scar and narrow, causing a blockage (stricture) that can cause food or pills to get stuck in the esophagus. The narrowing is caused by scar tissue that develops as a result of ulcers that repeatedly damage and then heal in the esophagus.

Lung and throat problems — Some people reflux acid into the throat, causing inflammation of the vocal cords, a sore throat, or a hoarse voice. The acid can be inhaled into the lungs and cause a type of pneumonia (aspiration pneumonia) or asthma symptoms. Chronic acid reflux into the lungs may eventually cause permanent lung damage, called pulmonary fibrosis or bronchiectasis.

Barrett's esophagus — Barrett's esophagus occurs when the normal cells that line the lower esophagus (squamous cells) are replaced by a different cell type (intestinal cells). This process usually results from repeated damage to the esophageal lining, and the most common cause is longstanding gastroesophageal reflux disease. The intestinal cells can transform into cancer cells. As a result, people with Barrett's esophagus are advised to have a periodic endoscopy to monitor for early warning signs of cancer.

Esophageal cancer — There are two main types of esophageal cancer: adenocarcinoma and squamous cell carcinoma. A major risk factor for adenocarcinoma is Barrett's esophagus, discussed above. Unfortunately, adenocarcinoma of the esophagus is on the rise in the United States and worldwide. Early detection and prevention are important in the management process.

REFLUX TREATMENT — Doctors of Comprehensive Digestive Institute of Nevada are experts are treating gastroesophageal reflux disease.

Lifestyle changes — Changes to the diet or lifestyle have been recommended for many years, although their effectiveness has not been extensively evaluated in well-designed clinical trials. A review of the literature concluded that weight loss and elevating the head of your bed may be helpful, but other dietary changes were not found helpful in all patients. Thus, these recommendations may be helpful in some, but not all people with symptoms of acid reflux.

Weight loss – Losing weight may help people who are overweight to reduce acid reflux. In addition, weight loss has a number of other health benefits, including a decreased risk of diabetes and heart disease.

Raise the head of the bed six to eight inches – Although most people only have heartburn for the two- to three-hour period after meals, some wake up at night with heartburn. People with nighttime heartburn can elevate the head of their bed, which raises the head and shoulders higher than the stomach, allowing gravity to prevent acid from refluxing.

Avoid acid reflux inducing foods – Some foods also cause relaxation of the lower esophageal sphincter, promoting acid reflux. Excessive caffeine, chocolate, alcohol, peppermint, and fatty foods may cause bothersome acid reflux in some people.

Quit smoking – Saliva helps to neutralize refluxed acid, and smoking reduces the amount of saliva in the mouth and throat. Smoking also lowers the pressure in the lower esophageal sphincter and provokes coughing, causing frequent episodes of acid reflux in the esophagus. Quitting smoking can reduce or eliminate symptoms of mild reflux.

Avoid large and late meals – Lying down with a full stomach may increase the risk of acid reflux. By eating three or more hours before bedtime, reflux may be reduced. In addition, eating smaller meals may prevent the stomach from becoming overdistended, which can cause acid reflux.

Avoid tight fitting clothing – At minimum, tight fitting clothing can increase discomfort, but it may also increase pressure in the abdomen, forcing stomach contents into the esophagus.

Chew gum or use oral lozenges – Chewing gum or using lozenges can increase saliva production, which may help to clear stomach acid that has entered the esophagus.

Antacids — Antacids are commonly used for short-term relief of acid reflux. However, the stomach acid is only neutralized very briefly after each dose, so they are not very effective.

Histamine antagonists — The histamine antagonists reduce production of acid in the stomach. However, they are somewhat less effective than proton pump inhibitors (PPIs).

Proton pump inhibitors — PPIs are stronger and more effective than the H2 antagonists.

Once the optimal dose and type of PPI is found, you will probably be kept on the PPI for approximately eight weeks. Depending upon your symptoms after eight weeks, the medication dose may be decreased or discontinued. If symptoms return within three months, long-term treatment is usually recommended. If symptoms do not return within three months, treatment may be needed only intermittently. The goal of treatment for GERD is to take the lowest possible dose of medication that controls symptoms and prevents complications.

If symptoms are not controlled — If your symptoms of gastroesophageal reflux disease are not adequately controlled with one PPI, one or more of the following may be recommended:

- An alternate PPI may be prescribed or the dose of the PPI may be increased
- The PPI may be given twice per day instead of once
- Further testing may be recommended to confirm the diagnosis and/or determine if another problem is causing symptoms
- Surgical treatment may be considered. Surgery for GERD is called fundoplication. The surgery is done by strengthening the lower esophageal sphincter. Surgery should only be considered until all other measures have been tried.

Summary

GERD is a very common problem that requires medical attention. Fortunately, there is a great deal that can now be done about this common condition. Lifestyle changes can help, and there are many medications and even surgery to treat and correct GERD. Working with the right doctor to implement a good medical program can almost always be developed to successfully treat the patient with GERD.