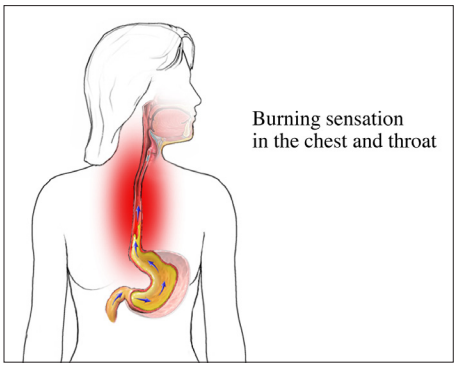
Gastroesophageal Reflux Disease (GERD)

An educational handout for patients



What is gastroesophageal reflux disease?

Gastroesophageal reflux disease (GERD) is a common condition that develops when food or stomach contents back up or reflux into the esophagus (food passageway) and cause troublesome symptoms. A small amount of reflux is normal in most healthy persons. Only when there is excessive reflux or when the reflux affects an individual's health is it considered to be GERD.

What are the symptoms of GERD?

The classic symptoms of GERD are **heartburn** (a burning sensation behind the breastbone that moves upward) and **regurgitation** (the effortless movement of material, often sour or bitter, up into the throat). These symptoms usually occur after a meal.

Less typical symptoms caused by GERD include:

- chest pain or feeling of pressure
- excessive belching, salivation, or hiccups
- upper abdominal pain
- nausea or vomiting
- coughing, choking, or wheezing
- hoarseness, excessive throat clearing, or voice change

Because these less typical symptoms may be caused by other serious medical conditions, they should not be assumed to be due to GERD without confirmation by a doctor. Alarm symptoms, such as vomiting blood, dysphagia (difficulty with swallowing food), and poor appetite or unintentional weight loss, raise the possibility that a complication from GERD or another condition is present. Alarm symptoms always require medical evaluation.

What causes GERD?

Multiple factors cause GERD. The most common is excessive weight gain, with the development of obesity. GERD becomes more common as people age. Patients who have a hiatal hernia (displacement of the upper stomach into the chest) are predisposed to GERD. Certain medical conditions, such as diabetes and gastroparesis, may predispose patients to develop GERD.

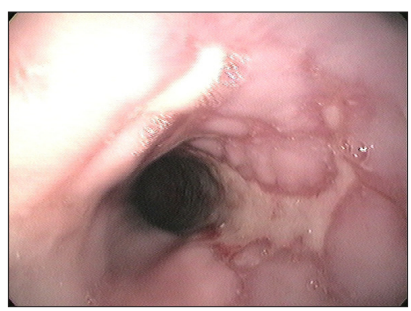
The use of aspirin and non-steroidal anti-inflammatory drugs is associated with having more heartburn, and may cause GERD complications. Poor sleep habits may increase the amount of reflux at night. Poor sleep and acute or chronic stress can increase the severity of symptoms of reflux. Some foods (onions, chocolate, carbohydrates, coffee, carbonated and alcoholic beverages) and dietary habits (large meals, lying down right after eating) may provoke reflux symptoms.

What are the complications of GERD?

GERD can impair the quality of sleep, work performance, and overall quality of life. Severe GERD can cause damage to the tissue lining the esophagus. This can lead to ongoing blood loss; strictures (narrowing of the food passageway), which cause dysphagia; and rarely, the development of esophageal cancer. Regurgitation of material from the stomach can damage tooth enamel and the voice box or cause pneumonia.

What tests are used to diagnose GERD?

- **Upper endoscopy** (flexible tube with a camera attached for viewing the inside of the esophagus) can determine if GERD has damaged the lining of the esophagus. However, at least half of the patients with GERD have normal findings on upper endoscopy, especially if they are already taking medicine to treat GERD.



Endoscopic photograph of severe esophagitis in a patient with GERD.

- An **ambulatory esophageal pH monitoring test** can assess the amount of acid refluxing into the esophagus and whether GERD symptoms occur at the time of this reflux. This test requires placement of a small wire probe through the nose into the esophagus, or attachment of a probe with a clip to the wall of the esophagus. This test takes 24 to 48 hours to complete.
- **Esophageal manometry** is a test to assess the muscle function of the esophagus. It is also used to help position the pH monitoring probe. The manometry catheters are passed through the nose and into the esophagus.
- A **barium esophagram** is an X-ray test that may help detect reflux or the presence of strictures due to GERD.

What are the first ways to treat GERD?

Lifestyle and dietary changes are the first steps to take in treating GERD.

- Patients with GERD who are overweight should work with their doctor on a program of diet and exercise to promote weight loss, or at least prevent additional weight gain.
- Patients should avoid overeating or lying down for 3 to 4 hours after eating.
- Efforts should be made to reduce the consumption of foods and beverages that provoke reflux symptoms.
- Patients with nighttime reflux symptoms should sleep with their head elevated, using a foam wedge or raising the head of the bed securely on blocks. Patients should avoid habits that prevent them from getting a full night's sleep.
- Patients taking frequent doses of aspirin or non-steroidal anti-inflammatory drugs for symptoms such as headache or pain should talk to their doctor about alternative treatments for these symptoms. Antacid tablets or liquids (such as Gaviscon®, Maalox®, Mylanta®, Rolaids®, or Tums®) may provide immediate relief. Chewing gum stimulates the production of saliva, which can help neutralize refluxed acid.

What happens if these treatments fail?

Two different classes of medicine are available in over-the-counter or prescription strength to reduce acid secretion by the stomach.

- H_2 receptor antagonists (H_2RAs) include agents such as cimetidine (Tagamet®), famotidine (Pepcid®), nizatidine (Axid®), and ranitidine (Zantac®).
- Proton pump inhibitors (PPIs) include such agents as dexlansoprazole (Dexilant™), esomeprazole (Nexium®), lansoprazole (Prevacid®), omeprazole (Prilosec® or Zegerid®), pantoprazole (Protonix®), and rabeprazole (Aciphex®). Most patients will respond similarly to any given medicine in the same class. The PPIs have a more potent and lasting effect in blocking acid production than the H_2RAs. Patients who find they need to take these medicines on a regular basis to control reflux symptoms should discuss their condition with their doctor.

Patients whose symptoms fail to respond to PPIs and H_2RAs need further evaluation by a doctor to find the reason for this failure.

Does surgery have a role in treatment of GERD?

Patients who fail to have adequate control of reflux symptoms, who are intolerant of or allergic to reflux medicine, or who cannot afford chronic medical therapy may be candidates for an anti-reflux surgical procedure, known as **fundoplication**. This involves wrapping the upper part of the stomach around the **lower esophageal sphincter** (valve muscle) to create a barrier that prevents excessive reflux of stomach contents into the esophagus. This surgery is usually done by a laparoscopic (keyhole surgery) technique, and sometimes with an incision in the abdomen.

What are some experimental treatments?

Endoscopic approaches to creating a reflux barrier do not offer lasting benefit. Modifications of these techniques are undergoing evaluation at many medical centers. New medicines that improve lower esophageal sphincter muscle function are undergoing clinical trials. For more information, visit the ANMS web site at **www•motilitysociety•org.**

For a list of doctors in your area who specialize in gastrointestinal motility problems, go to our web site:
www • motilitysociety • org

American Neurogastroenterology and Motility Society • ph 734-699-1130 • fax 734-699-1136 • e-mail admin@motilitysociety.org