



**What is GERD?** GERD (Gastroesophageal Reflux Disease) is a common condition involving the esophagus (the muscular tube that connects the back of the mouth to the stomach) that can occur at any age, but typically begins to appear around age 40. Many people refer to this disorder as heartburn or indigestion. GERD is caused when the muscular valve at the lower end of the esophagus relaxes, allowing the contents of the stomach to backwash, or reflux, into the esophagus. These gastric contents contain strong acids and bile that are very irritating to the lining of the esophagus.

**What are the symptoms?** The most common symptom is pain located anywhere from the upper abdomen to the upper chest/neck. The pain is usually described as burning, but may be sharp or more like pressure. Severe chest pain that mimics a heart attack may occur. Other symptoms include difficulty in swallowing (known as dysphagia), nausea, and regurgitation. GERD can also manifest itself with symptoms of the upper respiratory tract, such as frequent sore throats.

**What causes GERD?** As mentioned above, GERD occurs when the normal valve (or sphincter) between the stomach and the esophagus is weakened or whenever there are factors that will promote regurgitation of gastric contents into the esophagus. Patients with hiatal hernias (where the stomach is free to slide into the chest temporarily), those who produce excessive acid, and those who have delayed emptying of the stomach after meals are therefore more likely to experience GERD. Triggers include obesity and excessive consumption of fatty foods,

chocolate, peppermints, greasy or spicy foods, tomato products, citrus products, caffeine, and alcohol. Smoking, tight clothing, and eating heavy meals before sleeping can also contribute to the condition.

**Are there any serious conditions that GERD can cause?**

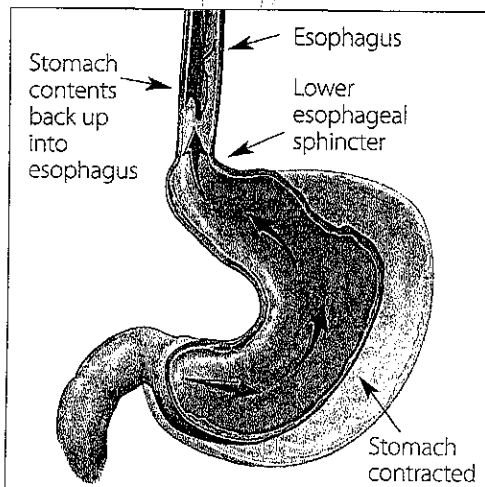
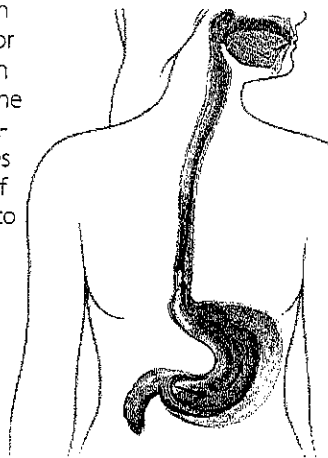
One of the most common problems with GERD is the esophagitis resulting from the caustic irritation of the distal part of the esophagus. Acid splashing back into the esophagus can result in inflammation or even a

narrowing scar (stricture) that causes people to have difficulty swallowing. Other complications include ulceration of the lining of the esophagus, asthma, pneumonia, and ear infection.

Patients with chronic, untreated heartburn can also develop Barrett's esophagus, a condition that requires monitoring to avoid developing esophageal cancer.

**How is GERD diagnosed?** Your physician will take a complete medical history and conduct a physical exam. Usually the physician makes a diagnosis based upon your symptoms. An endo-

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scopy allows your physician to see the damage caused by reflux, such as redness, erosion, or ulcerations in the bottom part of the esophagus. Esophageal manometry uses a flexible tube that is inserted into your nose down to your stomach and is designed to measure the strength of the lower esophageal sphincter. Another test is the pH monitor that records how much acid washes back into your esophagus during a 24-hour period. This procedure can be done using a thin catheter placed through the nose and down the esophagus or using a small capsule to measure the pH (or acidity) of the esophageal contents. Your physician may also wish to view the lining of the esophagus directly, using a small camera at the end of a narrow tube (endoscope) that is placed into the mouth or nose. At that time, a biopsy sample of the lining may be taken. This biopsy will be examined under a microscope by a surgical pathologist, preferably one specializing in gastrointestinal pathology, and a diagnosis of GERD or other unexpected abnormality can be established or excluded.

**How is GERD treated?** The first step is to make lifestyle changes by avoiding the foods that cause the most symptoms and that may relax the tone of the lower esophageal sphincter. Patients should avoid eating and drinking too close to bedtime, as gravity when lying flat allows food and acid in the stomach to wash up into the esophagus. The dinner meal should be early and light. Digestion can be aided by elevating the head of your bed. Medications, such as antacids and Histamine-2 blockers, that are available over-the-counter, are the mainstay of treatment and are designed to help reduce stomach acid. If non-prescription medicine is not working, your physician may prescribe a proton pump inhibitor or a pro-motility medication.

Surgical procedures, such as the Nissen fundoplication, involve taking the stomach and wrapping it around part of the esophagus to help strengthen the valve. Newer, less invasive treatment techniques using endoscopy are being developed as well.

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 ADDITIONAL RESOURCES:
 

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GERD Information Resource Center:  
[www.gerd.com](http://www.gerd.com)

About GERD:  
[www.aboutgerd.org](http://www.aboutgerd.org)

National Institute of Diabetes and  
 Digestive and Kidney Diseases:  
[www.digestive.niddk.nih.gov/ddiseases/pubs/gerd/index.htm](http://www.digestive.niddk.nih.gov/ddiseases/pubs/gerd/index.htm)

Web MD:  
[www.webmd.com/hw/heartburn/hw99179.asp](http://www.webmd.com/hw/heartburn/hw99179.asp)

Mayo Clinic:  
[www.mayoclinic.org/gerd/index.html](http://www.mayoclinic.org/gerd/index.html)

Cancer Institute:  
 1.800.4.CANCER / [www.cancer.gov](http://www.cancer.gov)

American College of Gastroenterology:  
 703.820.7400 / [www.acg.gi.org/patients](http://www.acg.gi.org/patients)



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