Gastroesophageal Reflux Disease

Gastroesophageal reflux disease (GERD) is caused by frequent backflow of food and acid into the esophagus (a tube connecting the mouth with stomach). This can occur in healthy people occasionally but is a frequent problem in those with GERD. Stomach contents are normally prevented from moving to the esophagus by the esophageal sphincter (a valve-like ring of muscle at the end of the esophagus). When this muscle relaxes and allows reflux or is generally weak, GERD may occur. GERD can affect people of any age or sex. The May 18, 2011, issue of JAMA includes an article about treatment of GERD.

**Symptoms of GERD**
Because reflux from the stomach consists of acid, a main symptom of GERD is frequent heartburn or acid indigestion and a bitter acid taste in the mouth. If stomach fluid reaches the larynx (breathing tube), coughing spells also develop. These symptoms of GERD can be aggravated by certain foods such as chocolate, citrus fruits, spicy and tomato-based foods, caffeine, and alcohol or by eating just before going to bed. Heart attack and stomach ulcers may mimic heartburn.

**Risk Factors for GERD**
- Hiatal hernia, an opening in the diaphragm that allows the stomach to partly move into the chest cavity.
- Obesity
- Pregnancy
- Cigarette smoking

**Complications of GERD**
- Ulcers in the esophagus
- Barrett esophagus (change in the cells of the esophageal lining, with an increased risk of cancer)

**Diagnosis and Treatment**
Persistent symptoms of GERD, especially occurring more often than 2 times a week for a longer time, require treatment. Based on symptoms, your physician may recommend lifestyle changes such as smoking cessation, avoiding certain foods, losing weight if necessary, and eating not later than 3 hours before going to sleep or lying down. Also, he or she may start you on over-the-counter antacids or a medication that diminishes production of acid in the stomach, such as H₂ receptor antagonists or proton pump inhibitors. If the symptoms persist, additional diagnostic procedures include upper endoscopy (examination of the esophagus and stomach through a flexible tube with a camera) or barium (radiological contrast) swallow test. In some cases it may be necessary to do a pH-monitoring test (for stomach acidity) and manometry test (to measure the strength of the esophageal sphincter). Both of these tests involve passing a tube up the nose and down the throat to the end of the esophagus. These tests can confirm GERD and suggest the necessity of additional medical or surgical treatment.

**Prognosis**
GERD symptoms usually resolve completely or almost completely within weeks of treatment. However, GERD is a chronic disease and may require lifelong treatment to prevent recurrence of symptoms or development of Barrett esophagus or cancer.

FOR MORE INFORMATION
- National Institute of Diabetes and Digestive and Kidney Diseases digestive.niddk.nih.gov/ddiseases/pubs/colonscopy/

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To find this and previous JAMA Patient Pages, go to the Patient Page link on JAMA’s Web site at www.jama.com. Many are available in English and Spanish.

Sources: National Institute of Diabetes and Digestive and Kidney Diseases at the National Institutes of Health and the National Library of Medicine.