

UNIVERSITY STUDENT HEALTH SERVICES • Fact Sheet

GASTROESOPHAGEAL REFLUX DISEASE (GERD)**WHAT IS IT?**

Gastroesophageal reflux, commonly known as heartburn or acid reflux, occurs when stomach contents (food mixed with stomach acid) back up into the esophagus and/or mouth. Reflux is a normal process that occurs in healthy individuals. It usually occurs briefly after meals and does not cause symptoms. Normal reflux becomes Gastroesophageal Reflux Disease (GERD) when people experience bothersome symptoms (typically 2 or more episodes per week) or injury to the esophagus.

WHAT CAUSES IT?

The esophagus is a muscular tube that carries food from the mouth to the stomach. The lower esophageal sphincter (LES) is a muscular ring that connects the esophagus to the stomach. The LES opens when we swallow to allow food or liquids to enter the stomach. Reflux occurs when the sphincter opens at the wrong time, allowing food and stomach acid to flow back up into the esophagus. Damage to the esophagus from repeated acid exposure can occur if symptoms are severe or frequent.

- ❖ Some foods and chemicals cause direct relaxation of the LES, precipitating symptoms. Others can slow digestion, stimulate acid production, and/or irritate the esophagus. Examples include:
 - Alcohol, nicotine.
 - Coffee (even decaf), caffeine, chocolate.
 - Peppermint.
 - Garlic, onions.
 - Fatty, fried or spicy foods.
 - Acidic foods (citrus, tomatoes, etc).
 - Certain medications, such as ibuprofen (Advil/Motrin), some antibiotics (doxycycline), and others.
- ❖ Behaviors and conditions that increase abdominal pressure may cause a weak LES to open and leak stomach contents back into the esophagus. Examples include:
 - Eating large meals.
 - Consuming carbonated beverages.
 - Bending at the waist.
 - Wearing tight-fitting clothing.
 - Being overweight or obese.
 - Pregnancy.
- ❖ A hiatal hernia can also decrease LES function and cause GERD. A hiatal hernia occurs when a weakening in the diaphragm muscle allows the stomach to partially slip up from the abdomen into the chest.

WHAT ARE THE SYMPTOMS?

The most common symptoms of GERD are heartburn and regurgitation. Heartburn presents as a burning sensation in the mid-chest, often accompanied by a sour/bitter taste or regurgitation of a small amount of undigested food into the mouth. Most people only have symptoms during the 2-3 hours following a meal. Eating a large meal or lying down after a meal may trigger or worsen symptoms.

Other symptoms of GERD may include:

- Upper abdominal pain.
- Chest pain.
- Nausea/vomiting.
- Bad breath, hoarseness, or excess mucus in the back of the throat.
- Problems swallowing.
- Persistent sore throat or sensation of a lump in the throat.
- Dry cough, new/worsening asthma.
- Recurrent lung infections (pneumonia).

HOW IS IT DIAGNOSED?

You may have GERD if you are experiencing significant heartburn twice a week or more. Classic symptoms are sufficient to make a diagnosis without further testing. Atypical, persistent, or severe symptoms should be evaluated by a gastroenterologist. An upper endoscopy may be recommended, where a small tube with a camera is passed into the esophagus, stomach, and small intestine to look for tissue damage and other changes; biopsies may be taken if needed.

HOW IS IT TREATED?

- ❖ **Lifestyle Changes:** These are recommended in ALL patients with GERD. Mild symptoms may be controlled with lifestyle changes alone.
 - Avoid foods, beverages, medications, and activities that trigger symptoms (see previous page).
 - Eat smaller meals, or stop eating when you begin to feel full.
 - Avoid lying down for 2-3 hours after eating (or avoid eating 2-3 hours before bed).
 - Raise the head of your bed 6-8 inches if you have nighttime symptoms. Place wooden blocks under the legs at the head of the bed or a foam wedge under your mattress. Adding more pillows is usually not helpful because the shoulders may not be sufficiently elevated; if using extra pillows leads to an unnatural curve in the body, GERD symptoms can worsen.
 - Quit smoking. Smoking decreases saliva production (a natural buffer of stomach acid), and it decreases lower esophageal sphincter tone.
 - Try chewing gum. This will increase saliva production, which helps clear any stomach acid that has entered the esophagus.
 - Lose weight if you are overweight or have recently gained weight.
- ❖ **Medications:** Infrequent or mild episodes of GERD can be treated with antacids and/or histamine-2 receptor blockers (H2 blockers). For more frequent or severe reflux symptoms, a stronger class of medications known as proton pump inhibitors (PPIs) is usually necessary.
 - **Antacids** relieve mild symptoms by neutralizing stomach acid. They do not prevent GERD.
 - Antacids are available as chewable tablets or liquids (TUMS, Mylanta, Maalox, etc).
 - They provide relief within 5 minutes, but their benefit only lasts about 30-60 minutes.
 - **H2 Blockers** reduce acid production and are more effective than antacids.
 - Famotidine (Pepcid) 10mg or 20mg taken twice daily is available over-the-counter.
 - H2 blockers begin working in about 60 minutes and can last up to 10-12 hours.
 - If symptoms are not improving after 2 weeks of use, increasing to a higher dose or switching to a proton pump inhibitor (PPI) is often recommended.
 - **Proton Pump Inhibitors (PPIs)** are strong acid suppressors that stop acid pumps from working.
 - Examples include omeprazole (Prilosec) and lansoprazole (Prevacid), which are available over-the-counter. Higher doses of these and other PPIs are available by prescription.
 - PPIs work faster and relieve symptoms better than H2 blockers. They can also heal damaged esophageal mucosa, if present. However, PPIs need to be taken daily for several days to reach maximal benefit. They are not as effective when taken on an as needed basis.
 - PPIs are most effective when they are taken 30-60 minutes before the first meal of the day.
 - Typically, patients will remain on the PPI for 8 weeks after an effective dose is found. After 8 weeks, the medication may be decreased or stopped depending on the symptoms. If symptoms return within 3 months, long-term PPI treatment may be necessary.
 - PPIs are safe, but the goal is to take the lowest effective dose for the shortest possible time. Long-term use may increase the risk of colon infections (such as *Clostridium difficile*) or reduce the absorption of certain nutrients (like B12 and magnesium). These risks are small but should not be ignored.

WHY SHOULD I TREAT GERD?

Longstanding or severe acid reflux can cause damage to the esophagus. Sometimes bands of scar tissue can form and cause food to get stuck in the esophagus. Repeated exposure to acid can also lead to precancerous changes in the esophagus (Barrett's esophagus), which can progress to cancer.

MAKE AN APPOINTMENT IN CLINIC IF: 1) reflux is a new problem for you; 2) symptoms are not responding to treatments that used to work; or 3) symptoms are worsening or associated with nausea, trouble swallowing, weight loss, cough, or new/worsening asthma.

SEEK CARE AT AN EMERGENCY ROOM IF: 1) symptoms are severe, 2) you are vomiting blood/coffee ground material, 3) your stools are black, or 4) you are having chest pain or trouble breathing.

RECOMMENDED WEBSITES: gastro.org, gi.org/patients, www.niddk.nih.gov