

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 (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 or injury to the esophagus. People who have heartburn 2-3 times a week may have GERD.

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 stomach contents to flow back up into the esophagus. The stomach secretes acid, so its contents can cause a chemical burn to the esophagus.

- ❖ Some foods and chemicals can cause direct relaxation of the LES, precipitating symptoms. Examples include:
 - Alcohol, nicotine.
 - Caffeine (coffee), chocolate.
 - Peppermint.
 - Fatty foods.
 - Citrus fruits.
 - Certain medications, such as ibuprofen (Advil/Motrin), some antibiotics (doxycycline), and others.
- ❖ Behaviors 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.
- ❖ A hiatal hernia can also decrease LES function and cause GERD. A hiatal hernia occurs when there is a weakening in the diaphragm muscle that allows the stomach to partially slip up from the abdomen into the chest. This condition is more common in people over age 50. The exact cause is unknown.

WHAT ARE THE SYMPTOMS?

The most common symptom of GERD is heartburn, which presents as a burning sensation in the mid-chest, often accompanied by a sour or bitter taste in the mouth. Symptoms may be worsened after eating a large meal or lying down after a meal.

Other symptoms may include:

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

HOW IS IT DIAGNOSED?

Classic symptoms of GERD are sufficient to make a diagnosis without further testing. Atypical, persistent, or severe symptoms should be evaluated by a gastroenterologist with endoscopy. During an endoscopy, the patient will be lightly sedated and a small tube with a camera will be passed into the esophagus, stomach, and small intestine to look for tissue damage and other changes.

HOW IS IT TREATED?

Mild GERD symptoms may be controlled with lifestyle changes alone. Medications can also be used to treat symptoms. Rarely, surgery may be recommended for refractory cases.

HOW IS IT TREATED? (continued)

- ❖ **Lifestyle Changes:** These are recommended in ALL patients with GERD.
 - 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.
 - Raise the head of your bed 6-8 inches. You can put the head of your bed on wooden blocks or place a foam wedge on your mattress. Do not use more pillows, as this can cause an unnatural curve in the body, which increases pressure on the stomach and worsens reflux.
 - Quit smoking/vaping. 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 (VCU Student Health Services can assist you with this).
- ❖ **Medications:** Infrequent 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) may be required.
 - **Antacids** help by neutralizing stomach acid (TUMS, Mylanta, Maalox, etc.).
 - They are available as chewable tablets or liquids.
 - They provide relief within 5 minutes, but their benefit only lasts about 30-60 minutes.
 - **H2 Blockers** are used to suppress acid production (Zantac/ranitidine, Pepcid/famotidine, etc.).
 - Both over-the-counter and prescription doses are available.
 - H2 blockers begin working in about 60 minutes and last up to 12 hours depending on the dosage and medication.
 - **Proton Pump Inhibitors (PPIs)** are strong acid suppressors that stop acid pumps from working.
 - Examples include Prilosec/omeprazole and Prevacid/lansoprazole, 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. However, they 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 of PPIs 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 acid reflux can cause damage to the esophagus. Sometimes bands of scar tissue can form and cause food to get stuck in the esophagus. Sometimes repeated exposure to acid leads to precancerous changes in the esophagus (Barrett's esophagus) that can progress to cancer.

MAKE AN APPOINTMENT AT THE CLINIC IF:

- Reflux is a new problem for you.
- Your heartburn is persisting despite treatments that worked in the past.
- Your heartburn is worsening or associated with other symptoms, such as nausea, trouble swallowing, weight loss, cough, or new/worsening asthma.

SEEK CARE AT AN EMERGENCY ROOM IF symptoms are severe, you have signs of bleeding (vomiting blood or coffee ground material; having bloody bowel movements), or you are short of breath.

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