

HEARTBURN, GASTROINTESTINAL REFLUX DISEASE (GERD), AND PEPTIC ULCER

The Digestive Process

Digestion begins in the mouth where food is chewed and mixed with saliva. When food is swallowed, it passes through the food pipe (esophagus) and into the stomach where it is mixed with digestive juices produced by stomach cells. The digestive juices are made up of acid that is as strong as the battery acid in a car! By the time food leaves the stomach, it is already turned into a thin liquid. The liquid moves into the small intestine where the digestive process is completed. Then the body can absorb the nutrients. Any undigested food, water, and waste products are passed into the large intestine for elimination.

Two common disorders of the digestive system are Heartburn, also called gastrointestinal reflux disease (GERD) and Peptic Ulcer.

It is important to note that the symptoms of these disorders may be similar to the symptoms of a HEART ATTACK. You should always consult your physician first if you experience these symptoms.

Heartburn or GERD

Heartburn is due to a weakness of the valve-like (sphincter) muscle between the esophagus and stomach. This allows the backflow of stomach acids into the esophagus. Acid is normally produced in the stomach.

Contributing Factors

- Laying down after eating
- Over eating
- Certain medications
- Obesity
- Pregnancy
- Swallowing air
- Fatty food
- Spicy food

- Large meals
- Carbonated drinks

Symptoms

The most common symptom is a burning sensation behind the breastbone, which may be worsened by lying down after a meal. Also, you might have a sour tasting substance coming back into your mouth from your stomach.

Diagnosis

There are several ways to diagnose heartburn/GERD. Most commonly, your physician will make the diagnosis based on your symptoms and will start preliminary treatment. X-ray studies or endoscopy (looking at the esophagus and stomach through a flexible viewing tube) can also be performed if your symptoms do not go away within several months of treatment.

Treatment

Medication to neutralize stomach acids, e.g. liquid antacids, medications to decrease stomach acid secretions, and/or medications to strengthen the lower esophageal sphincter, can usually relieve heartburn. Some of the medications require a prescription from your doctor.

Prevention

- Lose weight if overweight.
- Stop smoking because nicotine in cigarettes relaxes the lower esophageal sphincter allowing back up of stomach acids into the esophagus.
- Eat small frequent meals
- Avoid foods that may relax the lower esophageal sphincter, e.g. greasy foods, tomato products, grapefruit, oranges, coffee, chocolate, carbonated beverages, alcohol, and decaffeinated coffee.

- Avoid gas-forming foods such as onions, garlic, cabbage, broccoli, beans, and bran.
- Avoid tight belts or tight fitting clothes.
- Do not go to bed for at least 3 hours after eating.
- Sleep with head-end of bed elevated.

Peptic Ulcer

Peptic ulcer is a sore in the lining of the stomach or first part of the small intestine. (duodenum). Ulcers can occur at any age in both men and women. Ulcers are not caused by stress or diet. They are usually caused by an over production of acid in the stomach or by a certain bacteria (*helicobacter pylori*).

Contributing Factors

- Smoking
- Chronic use of aspirin or non-steroidal anti-inflammatory drugs
- Bacterial infection (*H. pylori* bacterium)
- Over secretion of stomach acids
- Lowered resistance of the stomach lining to digestive enzymes
- Genetics

Symptoms

Ulcers may or may not have any symptoms. Warning sign includes a dull gnawing or burning pain in the upper abdomen that typically comes between meals and in the middle of the night. The pain can last from a few minutes to a few hours and is temporarily relieved by food or antacids. More severe symptoms include vomiting blood or black stool. Vomiting blood or passing blood in the stool is very serious. You should go to the emergency room.

Diagnosis

- Barium X-ray studies:
During the test, the patient swallows a chalky liquid containing barium.

This allows the physician to detect the location of the ulcer from the X-rays.

- Endoscopy:
A long, thin, flexible tube equipped with a light and lens is inserted through the mouth and into the stomach so that the inside of the stomach can be viewed and tissue samples can be obtained for examination under the microscope.
- Blood Test:
To check for presence of antibodies to *H. Pylori* bacterium. A positive result is an indication of a previous exposure to the bacterium.

Treatment

Current methods of treatment are as follows:

1. Take medications to relieve pain and promote ulcer healing: to neutralize stomach acids, reduce the amount of acid produced, or coat the ulcer.
2. Take antibiotics to treat *H. pylori* infection if infected.
3. Avoid smoking because it increases stomach acids and delays healing.
4. Limit substances, which increase acid secretion:
 - Coffee (regular or decaffeinated)
 - Large quantities of milk
 - Alcohol
5. Surgery for peptic ulcer in almost never needed because the drug therapy works so well.

It is very important to tell your doctor about any medications you are taking as some medicines, particularly those used for minor pain (aspirin, Advil, Excedrin, Motrin) can cause irritation of the stomach lining.

Prevention

- If you have a peptic ulcer smoking will make the condition worse.
- Always take aspirin or non-steroidal anti-inflammatory drugs (NSAID's) with food.

If you experience any of the above symptoms, please consult your physician first.