

Common Gastrointestinal Problems

A Consumer Health Guide

GASTROESOPHAGEAL REFLUX DISEASE (GERD)

What is GERD or Heartburn?

Gastroesophageal reflux refers to the backward flow of acid from the stomach up into the esophagus. People will experience heartburn, also known as acid indigestion, when excessive amounts of acid reflux into the esophagus. Most people describe heartburn as a feeling of burning chest pain, localized behind the breastbone that moves up toward the neck and throat. Some even experience the bitter or sour taste of the acid in the back of the throat. The burning and pressure symptoms of heartburn can last as long as two hours and are often worsened by eating food.

How Common is GERD?

Over 60 million Americans experience acid indigestion at least once a month and some studies have suggested that over 15 million Americans experience acid indigestion daily. Symptoms of acid indigestion are more common among the elderly and women during pregnancy.

What Are the Treatments of GERD?

In many cases, doctors find that acid indigestion can be controlled by modifying lifestyles and proper use of over-the-counter medicines.

- ▼ Avoid foods and beverages which contribute to acid indigestion: chocolate, coffee, peppermint, greasy or spicy foods, tomato products and alcoholic beverages.
- ▼ Stop smoking. Tobacco inhibits saliva which is the body's major buffer. Some studies have concluded that tobacco stimulates stomach acid production and relaxes the muscle between the esophagus and the stomach, permitting acid reflux to occur.
- ▼ Reduce weight if obese.
- ▼ Avoid eating 2-3 hours before sleep.
- ▼ Take an over-the-counter antacid or an H₂-blocker, some of which are now available without a prescription.

When Should You See a Doctor about GERD?

When symptoms of acid indigestion are not controlled with modifications in lifestyle, and over-the-counter medicines are needed more often than twice a week, you should see your doctor.

When GERD is left untreated serious, complications can occur, such as severe chest pain that can mimic a heart attack, esophageal stricture (a narrowing or obstruction of the esophagus), bleeding, or Barrett's esophagus (a pre-malignant condition of the esophagus). Symptoms suggesting that serious damage has already occurred include:

- ▼ Dysphagia A feeling that food is trapped behind the breast bone.
- ▼ Bleeding Vomiting blood or tarry, black bowel movements.
- ▼ Choking Sensation of acid refluxed into the windpipe causing shortness of breath, coughing, hoarseness of the voice.

What Type of Tests are Needed to Evaluate GERD?

Your doctor may wish to evaluate your symptoms with additional tests when it is unclear whether your symptoms are caused by acid reflux, or if you suffer from complications of GERD such as dysphagia, bleeding, choking, or if your symptoms fail to improve with prescription medications. Your doctor may decide to conduct one or more of the following tests.

▼ *Barium Esophagram or Upper GI X-Ray*

This is a test where you are given a chalky material to drink while X-rays are taken to outline the anatomy of the digestive tract.

▼ *Endoscopy*

This test involves insertion of a small lighted flexible tube through the mouth into the esophagus and stomach to examine for abnormalities. The test is usually performed with the aid of sedatives.

▼ *Esophageal Manometry or Esophageal pH*

This test involves inserting a small flexible tube through the nose into the esophagus and stomach in order to measure pressures and function of the esophagus. With this test, the degree of acid refluxed into the esophagus can be measured as well.

Surgery

Surgeons perform anti-reflux surgery on patients with longstanding gastroesophageal reflux disease not controlled with medication. The surgical technique attempts to improve the natural barrier between the stomach and the esophagus that prevents acid reflux from occurring.

Medications Often Prescribed for GERD

Prescription medications to treat GERD and ulcers include drugs called H₂ receptor antagonists (H₂-blockers) and proton pump inhibitors which help to reduce the stomach acid which

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tends to exacerbate symptoms, and work to promote healing, as well as promotility agents which aid in the clearance of acid from the esophagus.

H₂-Receptor Antagonists

Since the mid-1970's H₂-receptor antagonists have been used to treat GERD and ulcer disease. In GERD, H₂-receptor antagonists improve the symptoms of heartburn and regurgitation and heal mild-to-moderate esophagitis. Symptoms are eliminated in somewhat over 50% of patients with twice a day prescription dosage of the H₂-receptor antagonists. Healing of esophagitis may require higher dosing. These agents maintain remission in about 25% of patients.

H₂-receptor antagonists are generally less expensive than proton pump inhibitors and provide adequate, cost-effective approaches as the first-line treatment as well as maintenance agents in GERD and ulcer disease. In mid-1995, the FDA approved availability of some H₂-blockers without prescription in dosage levels appropriate for treatment of heartburn.

Proton Pump Inhibitors

Proton pump inhibitors (PPIs), such as omeprazole, and more recently lansoprazole, have been found to heal erosive esophagitis (serious forms of GERD) more rapidly than H₂ receptor antagonists. PPIs provide not only symptom relief, but also symptom resolution in most cases, even in those with esophageal ulcers. Studies have shown PPI therapy can provide complete endoscopic mucosal healing of esophagitis at 6 to 8 weeks in 75% to 100% of cases. Daily PPI treatment provides the best long-term maintenance of esophagitis, particularly in keeping symptoms and disease in remission for those patients with moderate-to-severe esophagitis, plus this form of treatment has been shown to retain remission for up to five years.

Promotility Agents

Promotility drugs are effective in the treatment of mild to moderately symptomatic GERD. These drugs increase lower esophageal sphincter pressure, which helps prevent acid reflux, and improves the movement of food from the stomach. They decrease heartburn symptoms, especially at night, by improving the clearance of acid from the esophagus. Recent developments have greatly limited the availability of one of these agents, i.e. cisapride. Cisapride had been used widely for several years in treating night-time heartburn and was also used by some practitioners in treatment of GERD symptoms in children. More recently, rare but potentially serious complications have been reported in some patients taking cisapride. These complications seem to be related to usage in

patients on contraindicated medications or in patients with contraindicated medical conditions, such as underlying heart disease. In March of 2000, the manufacturer announced that it had reached a decision in consultation with the FDA to discontinue the marketing of the drug. The product will remain available only through a limited-access program. This program has been established for patients who fail other treatment options and who meet clearly defined eligibility criteria.

Over-the-Counter Medications

Large numbers of Americans use over-the-counter antacids and other agents that are available without a prescription to treat minor GI discomforts, infrequent heartburn or acid indigestion. Recently, FDA approved the non-prescription availability of important acid suppression agents, call H₂-blockers (Tagamet, Pepsid, Zantac and Axid - some are already available at certain dosages for OTC uses, others are expected to be available soon) for treatment of heartburn. Over-the-counter antacids alone account for over \$1 billion in sales per year. Early indications are that over-the-counter H₂-blockers will also account for major consumer purchases.

Over-the-counter medications have an important role in providing relief from heartburn and other occasional GI discomforts. More frequent episodes of heartburn or acid indigestion may be a symptom of a more serious condition which could worsen if not treated. If you are using an over-the-counter product more than twice a week, you should consult a physician who can confirm a specific diagnosis and treatment plan with you.

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ULCERS

What is an Ulcer?

About 20 million Americans will suffer from an ulcer in their lifetime. Duodenal ulcers often occur between the ages of 30 and 50, and are twice as common among men. Stomach ulcers are more common after the age of 60 and are more common in women.

An ulcer is a focal area of the stomach or duodenum that has been destroyed by digestive juices and stomach acid. Most ulcers are no larger than a pencil eraser, but they can cause tremendous discomfort and pain.

What are the Symptoms of Ulcers?

The most common symptom of an ulcer is a gnawing or burning pain in the upper abdomen. The pain often occurs between meals and sometimes awakens people from sleep. Pain may last minutes to hours and is often relieved by eating and taking antacids. Less common symptoms of an ulcer include nausea, vomiting and loss of appetite and weight.

What Causes Ulcers?

In the past, ulcers were incorrectly thought to be caused by stress. Doctors now know that there are two major causes of ulcers. Most often patients are infected with the bacteria *Helicobacter pylori* (*H. pylori*). Others who develop ulcers are regular users of pain medications called non-steroidal anti-inflammatory drugs (NSAIDs), which include common products like aspirin and ibuprofen. The use of antibiotics to fight the *H. pylori* infection is a major scientific advance. Studies now show that antibiotics can permanently cure 80-90% of peptic ulcers. Blocking stomach acid remains very important in the initial healing of an ulcer.

Helicobacter pylori

Most ulcers arise because of the presence of *Helicobacter pylori*. Because *H. pylori* exists in the stomachs of some people who do not develop ulcers, most scientists now believe that ulcers occur in persons who have a combination of a genetic predisposition, plus the presence of the bacteria, *Helicobacter pylori*.

Use of Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)

The second major cause for ulcers is irritation of the stomach arising from regular use of non-steroidal anti-inflammatory drugs. NSAID-induced gastrointestinal side effects can best be avoided by using alternative therapy whenever possible. Low-dose corticosteroids or supportive drugs such as acetaminophen are alternatives to NSAIDs to consider. Four grams per day of acetaminophen has been shown to be comparable to analgesic and anti-inflammatory doses of ibuprofen for osteoarthritis pain and is not associated with an increased risk of gastrointestinal side effects.

If you are taking over-the-counter pain medications on a regular basis, you will want to talk with your physician about the potential for ulcers and other GI side effects. Your doctor may recommend a change in the medication you are using, or the addition of some other medication in conjunction with your pain medication to prevent ulceration. These could range from switching to acetaminophen, use of antacids or a prescription product (such as misoprostol) in conjunction with your pain medication.

What are the Complications of Ulcers?

▼ **Bleeding:** Bleeding from an ulcer can occur in the stomach or the duodenum and is sometimes the only sign of an ulcer. Bleeding from an ulcer may be slow, causing anemia and fatigue. More rapid bleeding can cause bowel movements to become sticky and tarry black or even bloody. Bleeding ulcers may cause nausea and vomiting of acidified blood that looks like "old coffee grounds."

▼ **Perforation:** When ulcers are left untreated digestive juices and stomach acid can literally eat a hole in the intestinal lining. Bacteria, food and digestive juices can spill into the abdominal cavity causing sudden, intense pain that requires hospitalization, and often surgery.

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▼ *Obstruction:* Chronic inflammation from an ulcer can cause swelling and scarring to occur. Over time scarring may close the outlet of the stomach, preventing the passage of food and causing vomiting and weight loss.

How are Ulcers Diagnosed?

Most doctors recommend that a test be performed to evaluate for the presence of an ulcer if symptoms are not improved after two weeks of treatment with an acid blocking medicine (cimetidine, ranitidine, famotidine, nizatidine, omeprazole or lansaprazole etc.). The tests most commonly used to evaluate for ulcer are an X-ray known as an Upper GI Series or UGI, and a procedure called an Endoscopy or EGD.

▼ *Upper GI Series:* This is an X-ray test where you are given a chalky material to drink while X-rays are taken to outline the anatomy of the digestive tract.

▼ *Endoscopy:* This test involves insertion of a small lighted flexible tube through the mouth into the esophagus and stomach to examine for abnormalities. The test is usually performed with the aid of sedatives. During the test, tissue biopsies can be taken for examination. A biopsy will not cause any pain or discomfort, and is usually only the size of a match head.

Tests for *Helicobacter pylori*

There are several tests available to your doctor to evaluate for the presence of the bacteria, *H. pylori*. Samples of blood can be examined for evidence of antibodies to the bacteria; a breath test can be examined for by-products from the bacteria; or biopsies from the stomach can be examined.

How are Ulcers Treated?

In the past, doctors advised patients to avoid spicy, fatty and acidic foods. We now know that diet has little to do with ulcer healing. Doctors now recommend that patients with ulcers only avoid foods that worsen their symptoms. Ulcer patients who smoke cigarettes should stop. Smoking has been shown to inhibit ulcer healing and is linked to ulcer recurrence. In general, ulcer patients should not take NSAIDS like aspirin or ibuprofen.

When is Surgery Necessary?

Most ulcers can be healed with medications. When an ulcer fails to heal or if complications such as bleeding, perforation or obstruction develop, surgery is often necessary.

MEDICATIONS OFTEN PRESCRIBED FOR ULCERS

Prescription medications to treat GERD and ulcers include drugs called H₂ receptor antagonists (H₂-blockers) and proton pump inhibitors which help to reduce the stomach acid which tends to exacerbate symptoms, and work to promote healing, as well as promotility agents which aid in the clearance of acid from the esophagus.

H₂-Receptor Antagonists

In ulcer disease, H₂-receptor antagonists have made major contributions to treatment. While recent research has defined the role of *Helicobacter pylori* in causing ulcer disease, stomach acid continues to be a major contributing cause through increasing irritation in the area of the ulcer, as well as adding to patient discomfort. H₂-receptor antagonists provide an excellent means of decreasing the flow of stomach acid to aid in the healing process.

H₂-receptor antagonists are generally less expensive than proton pump inhibitors and provide adequate, cost-effective approaches as the first-line treatment as well as maintenance agents in GERD and ulcer disease. The FDA has not approved any H₂-blocker formulation for non-prescription sale for the treatment of ulcers.

Proton Pump Inhibitors

PPIs have also taken on a major role in treating ulcer disease. Because they offer the most effective means of decreasing acid production, they are useful in treating serious ulcer conditions. As is indicated below, proton pump inhibitors are also included in most of the standard regimens for treating *Helicobacter pylori* infection.

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What Everyone Should Know About ULCERS

TREATMENT OF ULCERS CAUSED BY *H. PYLORI* INFECTION

Triple Therapy

There is no single medication which has achieved good results in eradicating *H. pylori*, hence combinations of drugs have been used to achieve increased success in eliminating the organism. The first therapeutic regimen with demonstrated success in widespread eradication of *H. pylori* involved triple therapy (three medications taken concurrently). Triple therapy has a demonstrated success in 80-95% of cases and is the standard of therapy at present. An antisecretory drug is usually added to accelerate ulcer healing.

TRIPLE THERAPY (two week course)
Bismuth subsalicylate (e.g. 2 tablets 4x daily) Tetracycline (e.g. 500 mg 4x daily) Metronidazole* (e.g. 250 mg 3x daily)

*Clarithromycin can be substituted for metronidazole, of particular benefit in metronidazole resistant patients.

Dual Therapies

Problems with triple therapy include difficulties for patients in taking so many medications regularly, side effects and the fact that 15-25% of patients have a resistance to metronidazole. Dual therapies, with simpler patient compliance, such as daily amoxicillin plus metronidazole, have been tested. An antisecretory drug is usually added to accelerate ulcer healing.

DUAL THERAPY (two week course)
Amoxicillin (e.g. 750 mg 3x daily) Metronidazole* (e.g. 500 mg 3x daily)

*Clarithromycin can be substituted for metronidazole, of particular benefit in metronidazole resistant patients.

Emerging Therapies

Therapies for 1995 also include triple therapy combining metronidazole*, omeprazole*** and clarithromycin, which often has better patient compliance than the more complicated standard triple therapy regimen. The dual therapy combination of omeprazole and clarithromycin, has been submitted to the FDA. Cure rates in clinical trials have ranged from 70% to 83%. A number of studies are investigating whether one week's therapy may approach the effectiveness of a two week regimen.

EMERGING THERAPIES	
(one or two week course)	(two week course)
Metronidazole (e.g. 500 mg 2x daily)	Omeprazole*** (e.g. 40 mg a.m.)
Omeprazole*** (e.g. 20 mg 2x daily)	Clarithromycin (e.g. 500 mg 3x daily)
Clarithromycin (250 mg 2x daily)	
Amoxicillin (e.g. 1 gram/2xdaily)	
Omeprazole*** (e.g. 20 mg/2x daily)	
Clarithromycin (e.g. 500 mg/2x daily)	

***Lansoprazole can be substituted for omeprazole.

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COLORECTAL CANCER

What is Colorectal Cancer?

Colorectal cancer is the second most common cancer killer in the United States, causing an estimated 55,000 deaths each year. More than 138,000 new cases of colorectal cancer are diagnosed each year. Men and women are equally affected by this disease.

Colorectal cancer is cancer of the colon and rectum, two parts of the digestive system also known as the large intestine.

Most colon cancers arise from polyps, abnormal growths on the wall of the colon that may become cancerous over time. If polyps are identified at a very early stage, they can be removed before they become cancerous.

Complications of colorectal cancer can be reduced or even prevented with the simple step of regular screening. The screening program recommended by the American Cancer Society includes an annual fecal occult blood test and a screening flexible sigmoidoscopy every 3-5 years for all Americans over the age of 50. Those individuals with a high risk for colorectal cancer because of prior cancer, a family history of cancer, or a history of chronic digestive condition that predisposes them to cancer, should undergo regular surveillance known as colonoscopy. A recent study in the *New England Journal of Medicine* stated that more than 90% of deaths associated with colorectal cancer could be avoided through early detection.

Who is At Risk for Colorectal Cancer?

- ▼ Women are just as likely as men to develop colorectal cancer.
- ▼ Colon cancer is most common after age 50, but the chances of developing this disease increase after age 40.
- ▼ Close relatives of a person who has had colorectal cancer before the age of 55, or persons with one of several chronic digestive conditions have a higher than average risk of developing colorectal cancer.

What are the Symptoms of Colorectal Cancer?

Most early cancers produce no symptoms, which is why screening is so important. Some possible symptoms, listed below, certainly do not always indicate the presence of colorectal cancer, but should prompt a visit with your physician and a check-up.

- ▼ Frequent gas pains
- ▼ Blood in or on the stool
- ▼ Diarrhea or Constipation
- ▼ A feeling that the bowel has not emptied completely

REGULAR SCREENING: THE ABSOLUTE BEST PROTECTION AGAINST COLORECTAL CANCER

When Should People be Screened for Colorectal Cancer?

People over 50 should be screened for colorectal cancer by their physician. Several tests are recommended.

- ▼ An annual fecal occult blood test, which checks for microscopic traces of blood in the stool.
- ▼ A flexible sigmoidoscopy once every 3-5 years to detect colorectal cancer at its earliest and most treatable stage.
- ▼ An annual colonoscopy is recommended for high risk patients of any age with prior history of colorectal cancer, a strong family history of the disease, or a predisposing chronic digestive condition such as inflammatory bowel disease.