

## **Common Gastrointestinal Problems**

*A Consumer Health Guide*

# **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.

## What Everyone Should Know About ULCERS

▼ *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 H<sub>2</sub> receptor antagonists (H<sub>2</sub>-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.

### H<sub>2</sub>-Receptor Antagonists

In ulcer disease, H<sub>2</sub>-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. H<sub>2</sub>-receptor antagonists provide an excellent means of decreasing the flow of stomach acid to aid in the healing process.

H<sub>2</sub>-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 H<sub>2</sub>-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 regimes 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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