



## Understanding Peptic Ulcer Disease

If you're feeling that pesky burning sensation in your stomach, it might be more than just standard indigestion. For countless individuals worldwide, this discomfort can indicate a common yet important digestive condition called peptic ulcer disease. While the idea of having ulcers might sound a bit scary, it's reassuring to know that modern medicine has made incredible progress in understanding and treating this condition.

### What Is Peptic Ulcer Disease?

Peptic ulcer disease (PUD) is a common condition that affects the upper digestive system. It's marked by the development of open sores, which we commonly refer to as ulcers. These ulcers can form in the stomach, known as gastric ulcers, or in the first section of the small intestine, called the duodenum, where they're known as duodenal ulcers. The size of these ulcers can vary quite a bit, ranging from about a quarter of an inch to several inches in diameter.



Think of your digestive system's lining like a special shield that usually keeps you safe from the strong effects of stomach acid and digestive enzymes. When this shield gets weakened, these powerful digestive fluids can create uncomfortable sores in the delicate tissue underneath. If not taken care of, peptic ulcer disease can bring about quite a bit of discomfort and even serious complications. The good news is that with some understanding and the right treatment, this condition can be managed effectively and even resolved!

### What Causes Peptic Ulcer Disease?

For many years, people thought that stress and spicy foods were the main reasons behind peptic ulcers. But guess what? Medical research has uncovered a different story. In fact, peptic ulcer disease actually stems from an imbalance between the aggressive factors in your digestive

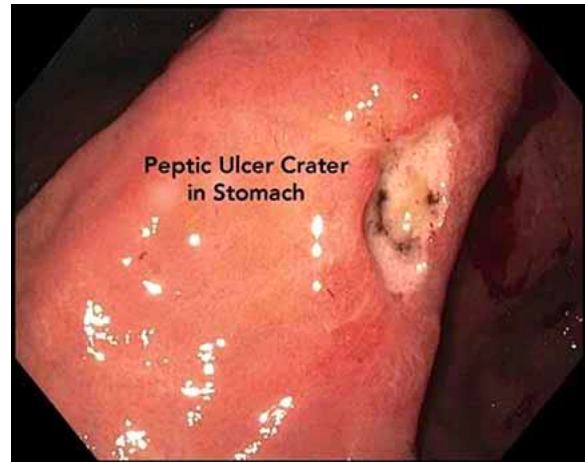
system, like stomach acid and pepsin, and the protective mechanisms that help keep everything in check. Think of your digestive system's lining as a clever barrier, working hard to shield you from the harsh effects of stomach acid and digestive enzymes. When this barrier is compromised, those strong digestive fluids can lead to painful sores in the delicate tissue underneath. The two key players in causing peptic ulcers are the *Helicobacter pylori* (*H. pylori*) bacteria and the regular use of non-steroidal anti-inflammatory drugs (NSAIDs).

### 1. **Helicobacter pylori (H. pylori)**

The *H. pylori* infection is a fascinating example of how bacteria adapt over time. These remarkable microorganisms have found a way to flourish in the harsh, acidic environment of the human stomach. Unfortunately, they can gradually harm the protective mucus layer that guards your stomach lining when they are present. This bacterium is one of the main culprits behind peptic ulcers worldwide. In fact, scientists believe that *H. pylori* is responsible for about 70-90% of duodenal ulcers and up to 70% of gastric ulcers! This bacteria usually spreads through contaminated food and water or even from person to person, which is why we see higher infection rates in places with limited access to clean water and proper sanitation.

### 2. **Non-Steroidal Anti-inflammatory Drugs (NSAIDs)**

Another key factor that can lead to peptic ulcers is the use of NSAIDs, including widely used pain relievers like aspirin, ibuprofen, and naproxen. While these medications are great at easing inflammation and pain, they may also irritate the stomach lining and make it harder for the stomach to handle acidic digestive fluids.



### 3. **Other Factors**

Smoking can really hamper your stomach's ability to defend itself and heal effectively. Excessive alcohol consumption can irritate the stomach lining and ramp up acid production. While stress and spicy foods aren't direct causes of ulcers, they might make symptoms feel worse and slow down recovery. It's also important to consider that genetic factors and a family history of ulcers can increase the likelihood of developing this condition.

## **Recognizing Symptoms of Peptic Ulcer Disease**

Peptic ulcer disease symptoms can differ greatly from one person to another. The primary symptom is a burning or gnawing sensation in the upper abdomen, often likened to hunger pangs. This discomfort typically occurs when the stomach is empty, like between meals or at night, and may offer temporary relief after eating or using antacids.

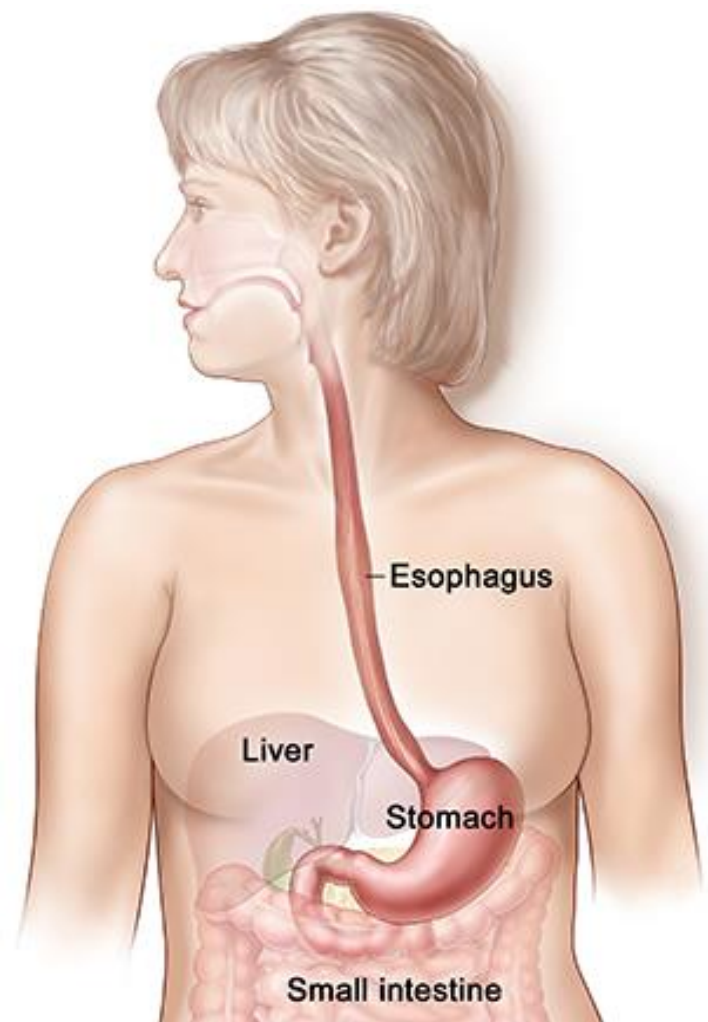
Alongside abdominal pain, people with peptic ulcers might also feel bloated, experience frequent burping, and have bouts of nausea. Sometimes, there could even be vomiting, which is something to pay attention to, as it might signal a more serious issue. It's essential to also keep an eye on appetite changes and unexpected weight loss, as these can be important signs too. In certain situations, ulcers may bleed, leading to serious symptoms like black or tarry stools and vomit that looks like coffee grounds. It's worth mentioning that not everyone with peptic ulcers shows clear signs; for instance, older adults may have what we call "silent" ulcers, which don't present immediate symptoms. This can be quite concerning since it can let the ulcer evolve without being noticed until severe complications arise.

### **How Is Peptic Ulcer Disease Diagnosed?**

Identifying peptic ulcer disease involves taking a careful look at the patient's symptoms, medical history, and lifestyle. At the first consultation, the healthcare provider will kindly ask about the symptoms' nature and how long they've been happening, any medications being taken—particularly NSAIDs—and if there's a family history of digestive disorders. A physical examination may be conducted where the doctor gently presses on the abdomen to check for any tender spots or swelling.

Specific diagnostic tests are often needed to confirm the presence of ulcers and determine their cause.

Routine blood tests are typically performed to rule out anemia or other conditions that may cause upper abdominal pain. Blood tests for *H. pylori* are unreliable, but stool tests can detect active *H. pylori* infections.



Usually, an upper endoscopy is carried out quite comfortably, as it's done under light anesthesia that ensures a pain-free experience. During this procedure, a thin, flexible tube with a camera gently explores your stomach and duodenum. This allows your doctor to see real-time images of the lining of your digestive tract, helping to identify any ulcers and assess their severity. If needed, your doctor can take tiny tissue samples

(biopsies), which can be tested for H. pylori and examined under a microscope to rule out other conditions, including cancer in the stomach ulcers.

Sometimes, we still use an older diagnostic tool called the upper gastrointestinal (UGI) series. In this procedure, patients drink a barium solution that helps us take X-rays to reveal any abnormalities in their digestive tract. A barium UGI series is less accurate than a direct exam during endoscopy.

### **Complications of Peptic Ulcer Disease**

Peptic ulcers can be serious if not treated, sometimes leading to severe and even life-threatening complications. One of the most common issues is bleeding, which happens when an ulcer damages blood vessels in the stomach or duodenum. This can result in noticeable blood loss, which might show up as dark, tarry stools or vomit that looks like coffee grounds.

Another serious concern is perforation, where the ulcer forms a hole in the stomach or duodenal wall, allowing digestive juices to leak into the abdominal cavity. This can lead to peritonitis, a severe and potentially dangerous infection. In addition, ulcers might extend into nearby organs, like the pancreas, which can cause further complications. Sometimes, swelling or scarring from ulcers can block food from moving through the digestive system, leading to troublesome symptoms such as persistent vomiting, bloating, and even significant weight loss. It's really important to seek medical help promptly in these situations.

### **Treatment Options for Peptic Ulcer Disease**

Modern treatment for peptic ulcer disease takes a thoughtful, multi-faceted approach that focuses on both the underlying cause and providing relief from symptoms. Your unique treatment plan will primarily depend on what's triggering your ulcers. Still, the aim is consistent: to remove the source of the issue while protecting and healing your digestive tract. Treatment typically involves a combination of lifestyle modifications and medications.

#### **Lifestyle modifications**

Making some positive lifestyle changes can really help with managing peptic ulcer disease. By quitting smoking and cutting back on alcohol, you'll be giving your stomach a wonderful chance to heal. If NSAIDs are a concern, the first step is to explore alternative pain management options together with your doctor. They'll assist you in finding ways to either stop using NSAIDs when you can or switch to safer medications that are friendlier to your stomach. This might mean trying different pain relievers, using topical treatments, or looking into other pain management methods. Tylenol (acetaminophen) does not cause peptic ulcers and can be taken safely up to 2000 mg per day. Also, managing stress through relaxation exercises, counseling, or even regular exercise can greatly support your recovery journey!

#### **No need for a special ulcer diet**

It's a common misconception that people with ulcers have to stick to a very strict diet. In reality, being mindful of how various foods affect your symptoms can make a big difference in your experience. Many people discover that enjoying smaller, more frequent meals can help

prevent painful episodes. Although spicy foods aren't the root cause of ulcers, they can sometimes upset sensitive stomachs. The most important thing is to pay attention to what feels right for your body and to try out different foods gradually.

## Medications

Medications play a vital role in addressing the underlying causes of peptic ulcers.

### Treating Helicobacter pylori (H. pylori) Infection

When dealing with an H. pylori infection, the top priority is to get rid of the bacteria that's causing trouble. It might sound simple, but it's actually quite tricky because H. pylori is very resilient. If someone develops ulcers from this infection, treatment usually involves a carefully coordinated combination of medications, often referred to as triple or quadruple therapy. This approach pairs antibiotics to clear out the infection with proton pump inhibitors (PPIs) to help cut down on stomach acid. Typically, this treatment lasts around 14 days, though your doctor might adjust it based on local resistance and your unique situation. Research shows that sticking with this plan, even when it gets tough, offers the best chance of completely eradicating the infection.

### Reducing stomach acid

To reduce acid and allow healing, several types of medications can help:

**Antacids:** These provide quick relief by neutralizing stomach acid. Think Tums or Rolaids. They're like fire extinguishers for your heartburn.

**H2 blockers:** These reduce acid production. Famotidine (Pepcid) is a common one. They work a bit slower than antacids, but they provide more extended relief.

**Proton Pump Inhibitors (PPIs):** These are the heavy hitters among acid reducers. These medications work in interesting ways. PPIs target the cells in your stomach that produce acid, effectively shutting down the pumps that release acid. This creates an environment that's more conducive to healing, regardless of what initially caused your ulcer. They include medications like omeprazole (Prilosec) and esomeprazole (Nexium). They're excellent for healing the esophagus if it's been irritated by acid.

Brand Name	Generic Name
Prilosec	Omeprazole
Nexium	Esomeprazole
Prevacid	Lansoprazole
Protonix	Pantoprazole
Aciphex	Rabeprazole
Dexilant	Dexlansoprazole
Zegerid	Omeprazole/Sodium Bicarbonate

### **New Kid on the Block: VOQUENZA (Vonoprazan)**

A new acid-reducing medication called VOQUENZA is generating considerable interest in H. pylori ulcer treatment. This innovative drug functions as a potassium-competitive acid blocker (P-CAB), meaning it works differently from traditional acid reducers. What makes VOQUENZA particularly intriguing is its rapid onset of action compared to typical PPIs, allowing for quicker relief and providing consistent acid control throughout the day. It has been approved as a new treatment for peptic ulcer disease (PUD) caused by H. pylori infection, in combination with the antibiotics Amoxicillin and Clarithromycin (as VOQUENZA TriplePak). After 14 days of treatment, the infection was eradicated in 85% of patients, slightly outperforming other regimens.

### **Carafate: A protective barrier**

Carafate (sucralfate) is a unique medication that isn't an antacid and doesn't function like PPIs to reduce acid production. Instead, it gently spreads and forms a protective coating on your stomach lining with a temporary, acid-resistant barrier. For optimal results, it's essential to take it on an empty stomach and wait at least 30 minutes before eating anything afterward. If you take it with food, it will coat the food instead of the stomach lining, and it's crucial to have that protective layer on your stomach! Generally, it's taken several times a day for about 3 to 4 weeks to aid in healing from ulcers.

### **Preventing Peptic Ulcer Disease**

Preventative measures aim to help us reduce risk factors and keep our digestive system happy and healthy! By practicing good hygiene, like washing our hands regularly and enjoying clean, well-prepared food and water, we can greatly decrease the chance of an H. pylori infection. It's also wise to use NSAIDs carefully and only with the guidance of a healthcare professional to avoid medication-induced ulcers. Additionally, embracing a balanced diet, finding effective ways to manage stress, and steering clear of smoking and excessive alcohol can really help in lowering the risk of developing peptic ulcers.

### **Living with Peptic Ulcer Disease**

Managing peptic ulcer disease encourages a proactive mindset when it comes to treatment and lifestyle adjustments. Keeping up with regular check-ins at your healthcare provider is essential for tracking your progress and fine-tuning your treatment plan. By sticking to your prescribed medications and embracing healthier habits, many individuals with peptic ulcer disease can enjoy fulfilling and productive lives

Robert Fusco MD  
January 2025

## Non-Prescription NSAIDS

Frequent use if these common non-prescription Non-Steroidal Anti-inflammatory Drugs (NSAIDS) are a common cause of peptic ulcer disease - especially when combined with a daily dose of aspirin (even low dose 81mg.)





## **Center For Digestive Health & Nutrition**

725 Cherrington Parkway • Moon Township, PA 15108  
412.262.1000 • [www.gihealth.com](http://www.gihealth.com) • IG: @thedigestivetract

The Center for Digestive Health & Nutrition is a private medical practice comprised of experienced gastroenterologists, nurse practitioners, and dedicated staff members committed to preventing and treating digestive disorders. Since 1977, our physicians have been fulfilling the needs of individuals in Western Pennsylvania and neighboring areas, having treated tens of thousands of patients with digestive concerns. Our mission is to deliver high-quality gastroenterology services efficiently and affordably. We acknowledge the sensitive nature of gastrointestinal illnesses and recognize the importance of providing our services in an environment that values patient privacy and confidentiality, where patient satisfaction is vital. Appointments can be quickly scheduled online through our website. To learn more about digestive issues, follow us on Instagram @thedigestivetract

**DISCLAIMER:** The content provided on this website is for general informational purposes only. It is not intended as definitive medical advice, and self-diagnosis should not depend on online information. If you experience any symptoms or health concerns, it is crucial to consult a physician for a thorough examination and professional evaluation. Only a qualified healthcare provider can deliver an accurate diagnosis and develop an appropriate treatment plan to rule out serious medical conditions.