

# Understanding Ulcers: Causes, Symptoms and Treatment Options

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## Introduction

Ulcers are a common medical condition that affects millions of people worldwide. These painful sores can occur in various parts of the body, including the stomach, small intestine, and mouth. Despite their prevalence, ulcers can be debilitating and require timely medical intervention. This article aims to provide a comprehensive overview of ulcers, including their causes, symptoms, and available treatment options. An ulcer is defined as a break or erosion in the protective lining of an organ or tissue. The most common types of ulcers include peptic ulcers, which occur in the stomach and small intestine, and oral ulcers, which affect the mouth. Peptic ulcers are usually classified as gastric ulcers or duodenal ulcers, depending on their location. Gastric ulcers develop in the lining of the stomach, while duodenal ulcers form in the upper part of the small intestine, called the duodenum. Oral ulcers, also known as mouth ulcers or canker sores, are shallow sores that develop on the inside of the mouth, including the tongue, gums, and inner cheeks. One of the primary causes of peptic ulcers is infection with a bacterium called *Helicobacter pylori* (*H. pylori*). This bacterium is highly prevalent and can reside in the stomach lining, causing inflammation and eventually leading to ulcers [1].

Regular use of Nonsteroidal Anti-inflammatory Drugs (NSAIDs), such as aspirin and ibuprofen, can irritate the stomach lining and increase the risk of developing ulcers. Smoking, excessive alcohol consumption and high-stress levels can also contribute to the development of ulcers. While these factors do not directly cause ulcers, they can aggravate existing ulcers or delay the healing process. An upper endoscopy involves the insertion of a flexible tube with a camera (endoscope) into the throat and down the esophagus to examine the stomach and duodenum for any ulcers or abnormalities. During an endoscopy, a small tissue sample (biopsy) may be taken for laboratory analysis to determine if *H. pylori* infection is present. Proton Pump Inhibitors (PPIs) These drugs reduce stomach acid production, allowing ulcers to heal. Examples include omeprazole, esomeprazole, and lansoprazole. If *H. pylori* infection is present, a combination of antibiotics is prescribed to eradicate the bacteria. Common antibiotics used include amoxicillin, clarithromycin, and metronidazole. These medications reduce acid production and can help alleviate ulcer symptoms. Famotidine and ranitidine are examples of H2 blockers [2].

In rare cases, surgery may be required for severe or recurring ulcers that do not respond to medications. Surgical options include removing the ulcer or tying off bleeding blood vessels. Ulcers can significantly impact an individual's quality of life, but with timely diagnosis and appropriate treatment, most ulcers can be effectively managed and healed. Recognizing the causes, symptoms, and treatment options for ulcers is crucial in seeking prompt medical attention. By adopting preventive measures and maintaining a healthy

lifestyle, individuals can minimize the risk of developing ulcers and reduce the chances of recurrence, allowing for a healthier and more comfortable life. If an ulcer erodes a blood vessel, it can cause internal bleeding. This can lead to symptoms such as black, tarry stools or vomiting blood. Severe bleeding may require immediate medical intervention. In rare cases, an ulcer can create a hole in the stomach or intestine, leading to a condition called perforation. Perforation requires emergency surgery to repair the hole and prevent infection. Scar tissue formation from healing ulcers can cause narrowing of the digestive tract, leading to obstruction. This can result in symptoms like severe abdominal pain, vomiting, and difficulty swallowing [3].

## Description

Untreated *H. pylori* infection and long-term presence of gastric ulcers can increase the risk of developing stomach cancer. Regular monitoring and appropriate treatment of ulcers and *H. pylori* infection can help mitigate this risk. In addition to the common types of ulcers discussed earlier, there are two specific categories that require additional attention: stress ulcers and NSAID-induced ulcers. Stress ulcers are a type of peptic ulcer that can develop in individuals who experience severe physiological stress, such as those admitted to intensive care units, suffering from burns, or undergoing major surgeries. These ulcers are usually managed by addressing the underlying stress factors and providing acid-suppressing medications. As mentioned earlier, regular use of NSAIDs can irritate the stomach lining and increase the risk of developing ulcers. If you require long-term NSAID use for conditions like arthritis or chronic pain, your healthcare provider may prescribe additional medications, such as PPIs or misoprostol, to protect the stomach lining and minimize the risk of ulcers. While medical treatment is the mainstay for ulcer management, some individuals may explore alternative or complementary therapies. It is essential to approach these options with caution and consult a healthcare professional before trying any new treatments [4].

Certain strains of beneficial bacteria, known as probiotics, may have a role in managing *H. pylori* infection and promoting ulcer healing. However, more research is needed to establish their effectiveness and optimal dosing. Herbs such as licorice root, chamomile, and aloe vera have been traditionally used for ulcer management. While they may provide some relief, their efficacy varies, and some herbal remedies may interact with medications. It is crucial to consult with a healthcare provider before using any herbal supplements. Living with ulcers can be challenging, but certain lifestyle modifications can help alleviate symptoms and improve overall well-being. Opt for a balanced diet rich in fruits, vegetables, whole grains, lean proteins, and low-fat dairy products. Avoid spicy foods, caffeine, alcohol, and acidic foods that may aggravate ulcer symptoms. Chronic stress can exacerbate ulcer symptoms. Explore stress management techniques such as meditation, deep breathing exercises, yoga, or engaging in activities you enjoy to promote relaxation and reduce stress levels.

Living with ulcers can be emotionally and physically taxing. Reach out to friends, family, or support groups to share experiences, seek advice, and gain emotional support. It can be helpful to connect with others who understand the challenges of managing ulcers. Regular check-ups with your healthcare provider are essential to monitor ulcer healing, manage any complications, and adjust treatment as necessary. Be diligent in attending follow-up appointments and discussing any concerns or changes in symptoms. Ulcers are a common medical condition that can cause significant discomfort and affect daily life. Understanding the causes, symptoms, and available treatment options is

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Received: 02 May, 2023, Manuscript No. jspd-23-105868; Editor Assigned: 04 May 2023, PreQC No. P-105868; Reviewed: 16 May, 2023, QC No. Q-105868; Revised: 22 May, 2023 Manuscript No. R-105868; Published: 29 May, 2023, DOI: 10.37421/2684-4575.2023.5.156

crucial for timely diagnosis and effective management. By seeking medical attention, following the prescribed treatment plan, and adopting a healthy lifestyle, individuals with ulcers can achieve symptom relief, promote healing, and improve their overall well-being. Remember, proper diagnosis, treatment, and ongoing care is key to successfully managing ulcers and preventing complications [5].

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## Conclusion

Ulcers are a prevalent medical condition that can cause significant discomfort and impact quality of life. Understanding the causes, symptoms, and treatment options is essential for effective management and prevention of complications. By seeking timely medical attention, adhering to prescribed treatments, adopting a healthy lifestyle, and incorporating stress management techniques, individuals with ulcers can achieve symptom relief, promote healing, and improve their overall well-being. Remember, a comprehensive approach that addresses medical, dietary, and lifestyle factors is key to successfully managing and preventing ulcers.

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## Acknowledgement

None.

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## Conflict of Interest

None.

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**How to cite this article:** Nancy, Angelo. "Understanding Ulcers: Causes, Symptoms and Treatment Options." *J Surg Path Diag* 5 (2023): 156.