

- problem that requires hospitalization, and often surgery.
- **Obstruction** - Swelling and scarring from an ulcer may close the outlet of the stomach, preventing passage of food and causing vomiting and weight loss.
- **Cancer** - Patients who have H. Pylori in their stomach are 3 to 6 times more likely to develop stomach cancer.

How are Ulcers Diagnosed?

- **Endoscopy:** This test involves insertion of a small, lighted flexible tube with a camera which is passed through the mouth to examine the lining of the esophagus, stomach and the duodenum and if required, to remove small tissue samples to be analyzed under the microscope (biopsy). The test is usually performed using medicines to temporarily sedate the patient.
- **Upper GI Series:** Alternately, there is an X-ray test where the patients are given a chalky material (barium) to drink while X-ray are taken to outline the anatomy of the upper digestive tract.

Tests for H. Pylori:

- Urease Breath Test (UBT) - a breath test to examine the by-products of the bacteria.
- Endoscopy with biopsy - as described above.
- H. Pylori stool antigen test.
- H. Pylori Serology (blood) test (has limited role in Pakistan).

How are Ulcers Treated?

- **Diet** - In contrast to past beliefs, diet has little to do with ulcer healing, and it is now recommended that patients with ulcers only avoid foods that worsen their symptoms.
- **Abstinence from smoking** - Smoking has been shown to inhibit ulcer healing and is linked to ulcer recurrence.
- **Medical Therapy** - Most recommended regimen is the "Triple Therapy" which consists of a seven day twice a day course of treatment consisting of amoxicillin 1g and clarithromycin 500 mg, and a full-dose proton pump inhibitor (PPI, a medicine which reduces acid production eg omeprazole, lansoprazole, pantoprazole) for 6 weeks.
- **Surgical Therapy** - When an ulcer fails to heal or if complications of bleeding perforation or obstruction develop, surgery may be necessary.

Personal medical history is important

As with any other risk-benefit analysis, the determination of the risk associated with a particular patient's use of NSAIDs requires a careful look at the patient's medical history. Here are some key issues:

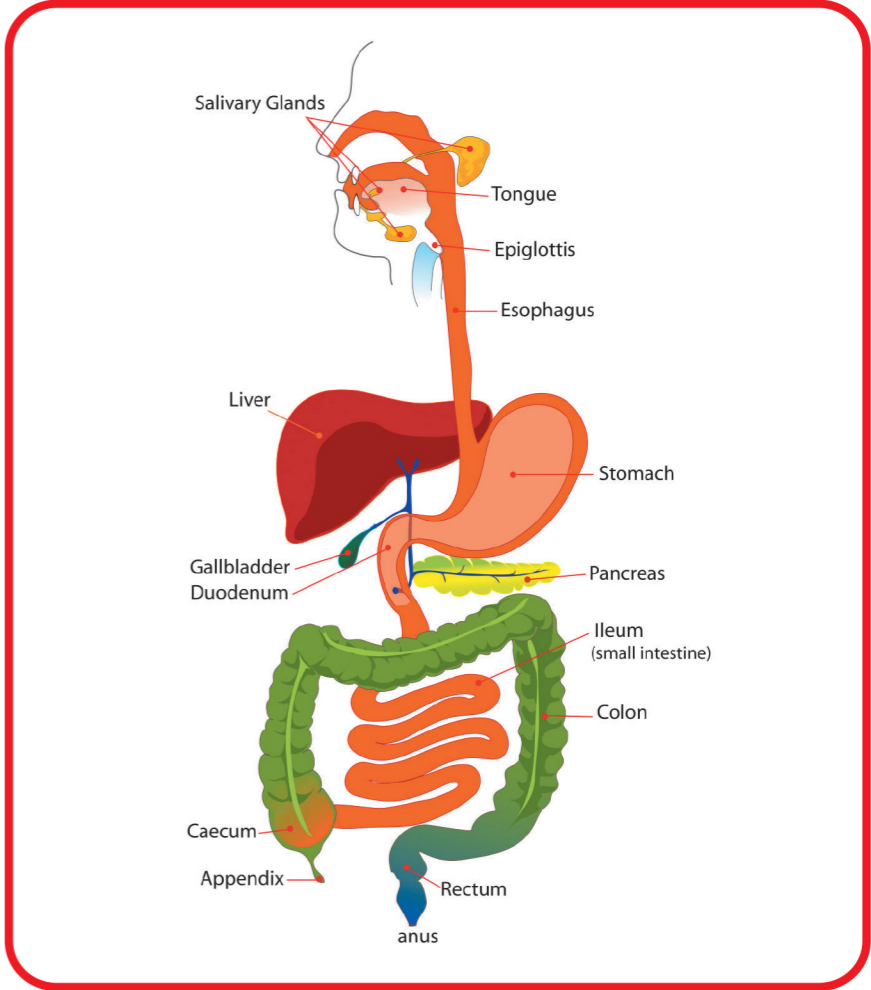
- **Age:** Has been identified as a risk factor in several studies. Older patients also often require pain medications more often or in large doses, further increasing their risk.
- **Previous Ulcer:** A history of an ulcer or an ulcer complication haven been identified in several studies as risk factors for complications due to aspirin or NSAID use.
- **Alcohol:** Alcohol, taken alone can cause irritation of the GI tract. There have been some indications that patients who consume alcohol at the same time they are taking aspirin or NSAIDs have an increased risk of damage to the intestinal lining, including ulcers and GI bleeding.
- **Steroids:** Patients taking NSAID who also are taking a prescription corticosteroid, medications like predisone (in doses over 10 mg), have been found to have a seven fold increased risk of having GI bleeding.
- **Anticoagulants:** Similarly, patients who are taking NSAIDs at the same time they are taking oral prescription anti-coagulants (for example, medications like coumadin) have been found to have a twelve fold increased risk of bleeding.
- **Frequent NSAID users:** Anyone who uses NSAIDs regularly is at risk for gastrointestinal problems. Even low-dose aspirin (81 mg) may pose some risk, although the risk is lower than with standard doses.
- **Stress and Psychological Factors:** Although stress is no longer considered a cause of ulcers, studies still suggest that stress may predispose a person to ulcers or prevent existing ulcers from healing. Some even believe that the anecdotal relationship between stress and ulcers is so strong that people with ulcers should be treated for psychological conditions.

Avoiding GI bleeding

- There are many medicines that may cause GI bleeding. Do not take any medicines, over-the-counter drugs, vitamins, herbs, or food supplements without first talking to your doctor. Do not take any medicine that has aspirin, naproxen, or ibuprofen in it without first asking your doctor.
- Always take your medicine as directed by your physician. If you are taking antibiotics, take them until they are all gone even if you feel better.
- If you have other medical conditions such as high blood pressure, you need to control them. Take medicines as directed. Some medical conditions may increase your risk of GI bleeding, especially if they are not well-controlled.

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UNDERSTANDING GI BLEEDING



The Gastrointestinal Tract

The gastrointestinal (GI) tract allows food to be converted into nutrients which are a source of energy, letting the unused matter to be removed from the body. It starts from the mouth, where the food is eaten and follows to the esophagus (food pipe), stomach, small intestine, large intestine (colon), finally ending at the anal opening. Other organ associated with the GI system include liver, pancreas and gall bladder; their secretions help in the digestion and absorption of food.

What is GI Bleeding?

GI bleeding refers to any bleeding that starts in the GI tract. It may either be mild (which may or may not be very serious) or heavy (which may have serious health consequences).

What are the Symptoms of GI bleeding?

It is important to recognize those symptoms which may accompany GI bleeding, because GI bleeding can be internal, without having pain, literally without knowing you are bleeding. Basically, the symptoms of possible GI bleeding vary, depending upon whether the source of the bleeding is in the upper part of the digestive tract (the esophagus, stomach or the beginning of the small intestine) or in the lower part (small intestine, colon or rectum).

Symptoms of Upper GI Bleeding:

- 1 vomiting bright red blood
- 1 vomiting dark clots, or coffee ground-like material
- 1 passing black, tar like stool

Symptoms of Lower GI Bleeding:

- 1 passing pure blood or blood mixed in stool
- 1 bright red or maroon colored in the stool

What are the Causes of GI Bleeding?

Upper gastrointestinal bleeding: Upper GI bleeding originates in the upper part of the GI tract-the esophagus, stomach, or duodenum (first part of the small intestine). Most often, upper GI bleeding is caused by one of the following:

- 1 Peptic ulcers
- 1 Gastritis
- 1 Esophageal varices
- 1 Mallory-Weiss tears
- 1 Gastrointestinal cancers
- 1 Injury of the gastrointestinal lining from ingested materials

Lower gastrointestinal bleeding: Lower GI bleeding originates in the portions of the GI tract further down the digestive system-such as part of the small intestine beyond the duodenum, large intestine, rectum and anus. The most common causes of lower GI bleeding include:

- 1 Diverticular disease
- 1 Gastrointestinal cancers
- 1 Inflammatory bowel disease (IBD)
- 1 Infectious diarrhea
- 1 Angiodysplasia
- 1 Polyps
- 1 Hemorrhoids and anal fissures

What are Gastroesophageal Varices?

Gastroesophageal varices are enlarged dilated veins in the lower part of the esophagus. They are found in patients with chronic liver disease who develop cirrhosis of the liver (shrunken liver) because of Hepatitis B, Hepatitis C or other causes.

What are the Symptoms of Gastroesophageal Varices?

Usually there are no symptoms. If there is only a small amount of bleeding, the only symptom may be dark or black streaks in the stools. If larger amounts of bleeding occur, symptoms may include black, tarry stools, bloody stools, light-headedness, paleness and vomiting blood.

What are the Complications of Gastroesophageal Varices?

These veins can rupture any time and bleed, sometimes massive enough to be fatal if not treated promptly.

How are Gastroesophageal Varices Diagnosed?

The test most commonly used to evaluate varices is a procedure called an Endoscopy or Esophago-gasto-duodenoscopy (EGD-the use of a camera on a flexible tube to examine the upper gastrointestinal system).

How are Gastroesophageal Varices Treated?

With the help of endoscopy, gastroesophageal varices are treated either by applying a rubber band on varices or by injecting clotting medicine directly on varices. Subsequent endoscopy and band ligation may be needed in 3-4 weeks time. Oral medications called beta-blockers are continued to decrease the pressure in the venous system of liver and veins to reduce the risk of further bleeding.

What is an Ulcer?

An ulcer is an area of the lining of stomach or duodenum that has been destroyed by the actions of gastric secretions. Their size may be very small (1-2 cm), but even small lesions can cause tremendous abdominal discomfort and pain. Duodenal (beginning of the small intestine) ulcers often occur between the age of 30 and 50, and are twice as common among men. Stomach ulcers occur more often after the age of 60 and are more commonly seen in women.

What are the Symptoms of Ulcers?

- 1 Burning pain in the upper abdomen (most common, can vary in severity and duration, lasting anywhere from a couple of minutes to several hours, often occurs between meals and sometimes awakens people from sleep, may be relieved by taking antacids or milk)
- 1 Nausea
- 1 Vomiting
- 1 Loss of appetite and weight
- 1 Bleeding

How are Ulcers Formed?

Ulcers can be caused by:

- 1 Infection with a type of bacteria called Helicobacter pylori (H. pylori).
- 1 Use of pain-killers called nonsteroidal anti-inflammatory drugs (NSAIDs), such as aspirin, naproxen, ibuprofen and many others available by prescription. Even safety-coated aspirin and aspirin in powered form can frequently cause ulcers.

What is Helicobacter Pylori (H. Pylori)?

H. Pylori is a bacterium (germ) which can infect the lining of the stomach and duodenum, causing ulcers. Most people don't realize they have H. pylori infection, because they never get sick from it. However, it is now believed that ulcers develop in most commonly people who have H. Pylori in their stomach and a hereditary/family predisposition. Antibiotics along with medications that block stomach acid can cure 80-90 percent of peptic ulcers.

Are there any Complications of Ulcers?

Yes, there are:

- 1 **Bleeding** - Internal bleeding in the stomach or the duodenum, leading to blood vomiting or blood in stool
- 1 **Perforation** - When ulcers are left untreated, digestive juices and stomach acid can literally eat a hole in the intestinal lining, a serious medical