

Gastric and Duodenal Ulcers

One of the most common gastro-intestinal disorders is Peptic Ulcer Disease (PUD), with a global incidence and prevalence of 4.8%. PUD refers to the ulceration of the stomach or small intestine (duodenal) mucosa. The complications for this condition include bleeding, perforation and obstruction at the site of of the ulceration.

What is the stomach?

The stomach is a sac-like, muscular structure that lies between the oesophagus and the first part of the small intestine called the duodenum. Ingested food passes from the esophagus to the stomach. The stomach's function is to hold food and assist in digestion by secreting acids and enzymes that breaks food down before releasing it into the small intestine.

What is the duodenum?

The duodenum is the first part of the small intestine, located between the stomach and the middle part of the small intestine called the jejunum. It is a hollow muscular tube that receives partially digested food from the stomach. The duodenum assists with further breakdown of food and absorption of nutrients.

What are stomach and duodenal ulcers?

Stomach (gastric) and small intestine (duodenal) ulcers are two types of peptic ulcers. A peptic ulcer is a sore that develops in the lining of the stomach or in the upper part of the small intestine (duodenum).

Signs and symptoms of stomach and duodenal ulcers:

- Abdominal pain or tenderness between the breast bone and belly button
- Heartburn
- Feeling full quickly when eating
- Intolerance to fatty food
- Bloating
- Nausea
- Vomiting (there may be blood in the vomit)
- Passing of black, tarry stools (indicating a bleeding ulcer)

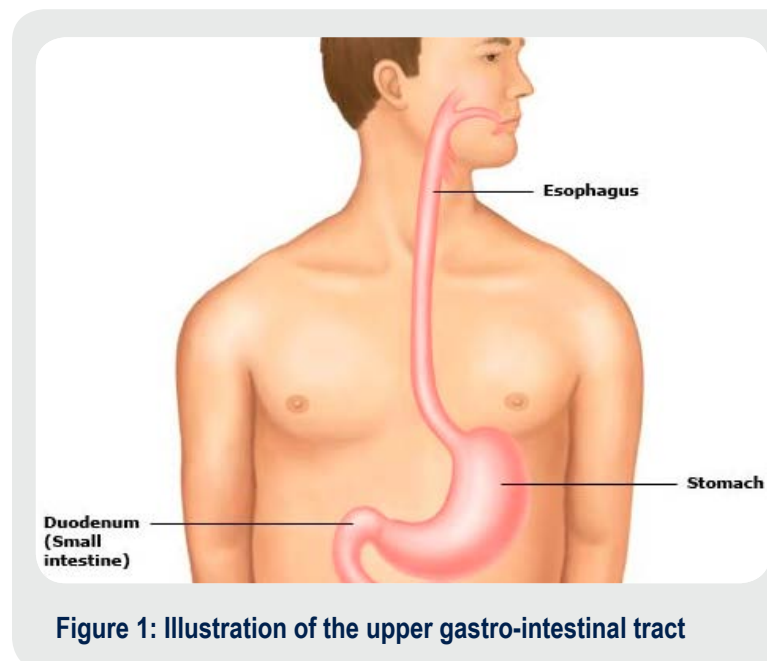


Figure 1: Illustration of the upper gastro-intestinal tract

- Unexplained weight loss and fatigue.

Complications of stomach and duodenal ulcers:

- Bleeding - may be life-threatening
- Perforation (small hole in the stomach or duodenum)
- Obstruction (narrowing and blockage where the stomach and the duodenum connects)

Risk factors for developing stomach and duodenal ulcers?

- Helicobacter Pylori (H. Pylori) infection - H. Pylori is a bacterium that is found in the intestinal tract. It causes increased acid secretion in the stomach and inflammation of the stomach lining which can lead to ulcer formation.
- Using medications such as Non-Steroidal Inflammatory Drugs (NSAIDs) - NSAIDs are often prescribed

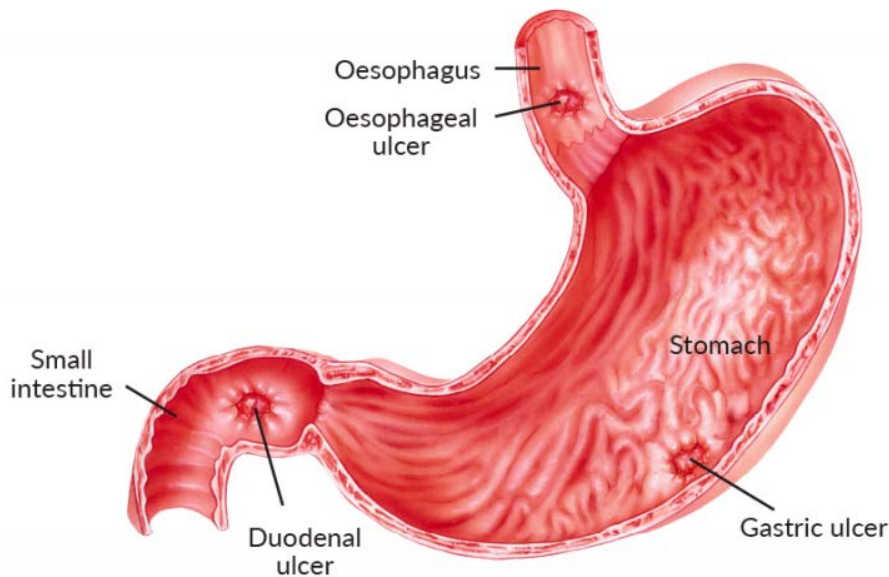


Figure 2: Illustration of peptic ulcers

to treat pain, fever and inflammation. Examples of NSAIDs are aspirin and ibuprofen. The risk for ulcer formation depends on the type, dose and duration of NSAID use.

- Smoking.
- Family history of peptic ulcers.

Diagnostic tests (Work-up) for complicated ulcers:

The tests listed below may be requested by your doctor as part of the work-up for a complicated ulcer, which is a suspected bleeding, perforated ulcer or obstructed ulcer:

- Physical Examination.
- Laboratory tests: Urea and Electrolytes (U&E), Full Blood Count (FBC), Arterial Blood Gas
- International Normalized Ratio (INR), ABO Compatibility testing, Rh testing, Liver Function Test (LFT), Amylase or Lipase.
- Chest x-ray.
- Abdominal x-ray.
- Abdominal ultrasound.
- Contrast Computerized Tomography (CT) scan.
- Gastro-intestinal endoscopy – a procedure where a light, flexible tube (endoscope) is passed through the mouth and throat to examine the gastro-intestinal tract up close, for any abnormalities.
- Biopsy – removal of tissue.

Not all the tests mentioned above are always necessary. The tests are subject to your clinical presentation and your doctor's discretion.

Prevention

There are a few ways of lowering your risk of developing peptic ulcers. These include:

- Taking medication to decrease acid secretion in the stomach, especially if you are taking NSAIDs or anticoagulants.
- Taking treatment to eradicate (destroy) H. Pylori infection. Treatment usually includes a course of antibiotics combined with medicines which suppress the production of acid and is only necessary if you tested positive for H. Pylori.
- Quitting smoking.
- Avoiding foods that irritate your stomach, e.g. spicy food, citrus fruits and fatty foods.
- Taking nonsteroidal anti-inflammatory drugs (NSAIDs including aspirin and ibuprofen) with food and not on an empty stomach.

Treatment options and the PMBs:

As part of the prescribed minimum benefits (PMBs), initial management for a bleeding or perforated peptic ulcer will depend on how much blood you have lost, or the severity of your condition. One of the following treatments might be needed initially:

- Supplemental oxygen
- Intra-venous fluids
- Blood products

Medical management for bleeding or perforated ulcers:

Includes eradication of H. Pylori infection with antibiotics and medicines which suppress the production of acid as needed.

Adrenaline injections where an ulcer might be bleeding, can be done to control and stop the bleeding.

Surgical management for bleeding or perforated ulcers:

Can include various interventions to treat the bleeding ulcer or the hole that the ulcer created. These can be performed via any of the two following general approaches:

- Laparoscopy - during this procedure, an instrument called a laparoscope is inserted through a small cut in your abdomen. The laparoscope has a light and video attached to the one end which allows the surgeon to examine your abdominal organs.
- Laparotomy - during this procedure, a larger cut is made in your abdomen to allow for examination of abdominal organs under direct vision by the surgeon.

Aftercare includes:

- Pain treatment
- Possible repeat upper endoscopy
- Follow-up with your surgeon in 6 weeks
- Repeat eradication of H. Pylori infection if needed

PMB entitlements of stomach and small intestine ulcers

Bleeding or perforated stomach (gastric) and intestinal (duodenal) ulcers is a PMB condition under the Diagnostic and Treatment Pair (DTP) code 902F. The treatment component specified for this DTP according to the PMB Regulations is surgery, endoscopic diagnosis and medical management. The diagnosis treatment and care should be funded by medical schemes irrespective of your plan option.

PMB level of care

Both open and laparoscopic surgery are PMB level of care. However, a guideline was published by Council for Medical Schemes (CMS) recommending some surgical equipment for laparoscopic procedures which should be covered as PMB level of care. This guideline also specifies the clinical state that a patient should be in, before laparoscopic procedures should be funded as PMB level of care. If the surgeon uses equipment which is not within the medical scheme's recommended basket or uses laparoscopic procedures not indicated for your clinical state, the medical scheme will not be obliged to pay for the cost of those items in full. It therefore remains the responsibility of the surgeon to ensure that the equipment used for surgical procedures will be covered in full.

References:

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WHAT ARE PRESCRIBED MINIMUM BENEFITS?

Prescribed Minimum Benefits (PMBs) are defined by law. They are the minimum level of diagnosis, treatment, and care that your medical scheme must cover. The scheme must pay for your PMB condition/s from its risk pool, and in full. There are medical interventions available over and above those prescribed for PMB conditions, but your scheme may choose not to pay for them. A designated service provider (DSP) is your scheme's healthcare provider (e.g. doctor, pharmacist, hospital) for the treatment or care for a PMB condition. If you choose to use a non-DSP voluntarily, you may have to pay a portion of the bill as a co-payment. Co-payment will not apply where a member has involuntarily used a non-DSP owing to an emergency medical condition, significant distance from a DSP, or non availability of a DSP. PMBs include 270 serious health conditions, any emergency conditions; and 25 chronic diseases. Information on these conditions can be found on the Council for Medical Schemes (CMS) [website](#).

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