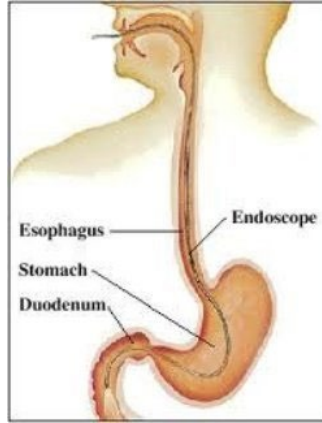


### Esophagogastroduodenoscopy (EGD)

Esophagogastroduodenoscopy (EGD) is a procedure to examine the lining of the esophagus, stomach, and duodenum (first part of the small intestine). The procedure is used to determine the cause of abdominal pain, bleeding, and to diagnose tumors, ulcers, inflammatory disease, and structural abnormalities of the esophagus, stomach, or duodenum.



### Inflammation and Ulcers

An upper GI endoscopy with a biopsy can detect inflammation inside the upper GI tract including:

- Esophagitis, inflammation of the esophagus
- Gastritis, inflammation of the stomach
- Duodenitis, inflammation of the duodenum/first part of the small intestine.

Inflammation can cause erosion and ulcers. An erosion is superficial damage to the lining of the stomach or intestine and rarely bleeds. An ulcer is deeper damage to the lining of the stomach or intestine and may cause bleeding.

Inflammation may be caused by: alcohol, medications (e.g. motrin/ibuprofen), and infections (e.g. Helicobacter pylori).

### H. Pylori

Helicobacter pylori (H. pylori) infection occurs when H. pylori bacteria infect your stomach. This usually happens during childhood. H. pylori bacteria may be passed from person to person through direct contact with saliva, vomit or fecal matter. H. pylori may also be spread through contaminated food or water.

Complications associated with H. pylori infection include ulcers, inflammation of the stomach lining, and stomach cancer. Treatment usually involves a combination of antibiotics and acid suppression.

### GERD and Barrett's Esophagus

Gastroesophageal reflux disease (GERD) occurs when gastric acid flows from the stomach into the esophagus. GERD can damage the lining of the esophagus.

Barrett's esophagus occurs when chronic or long-term reflux (regurgitation) of the stomach contents up into the esophagus damages the normal inner lining of the esophagus. This process usually takes many years to happen. Patients who have Barrett's esophagus have a higher risk of cancer of the esophagus. However, most people with Barrett's esophagus do not develop cancer.

### Gastric Intestinal Metaplasia

Gastric intestinal metaplasia (GIM) is an intermediate precancerous gastric lesion. Although the risk of gastric cancer is increased in patients with GIM, the absolute risk is modest. Surveillance EGD is performed in three years for patients at increased risk for gastric cancer: family history of gastric cancer in 1<sup>st</sup> degree relative, racial/ethnic minority (Asian, African American, Hispanic), or type of GIM (incomplete or extensive).

### Esophageal Stricture

An esophageal stricture is an abnormal narrowing of the esophagus. It often presents as **dysphagia** commonly described by patients as difficulty swallowing or sensation of something stuck in the chest or throat. The normal passage of food and liquids into the stomach is restricted. GERD, inflammatory conditions such as eosinophilic esophagitis, or tumors can lead to stricture.

### Esophageal Varices

Esophageal varices are enlarged veins in the walls of the esophagus that can rupture and bleed. Varices are typically associated with severe liver disease (e.g. liver cirrhosis). Treatment is eradication with rubber band ligation, medication, or a combination of variceal ligation and medication.

### Dysplasia

**Dysplasia** is a precancerous condition. When dysplasia is seen in the tissue sample, it is usually described as being "high-grade," "low-grade" or "indefinite" (or indeterminate) for dysplasia. Surveillance endoscopy is performed depending on the type of dysplasia: no dysplasia (EGD every 3-5 years); indefinite (medication and EGD in 2 months); low-grade (eradication therapy and radiofrequency ablation is preferred, otherwise EGD every 6 months for one year, then annually); high-grade (endoscopic eradication therapy or endoscopic resection of visible mucosal irregularities followed by radiofrequency ablation).