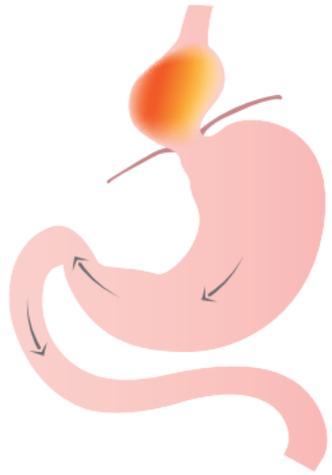


# What is a hiatal hernia?

A hiatal hernia occurs when a portion of the stomach moves up into the chest cavity.

The diaphragm separates the chest cavity from the abdominal cavity. A natural hole in the diaphragm allows the esophagus to pass from the chest to the abdomen.

When the ligaments holding the esophagus in position become loose, the hole becomes too large. This allows the stomach to partially rise up through the hole into the chest cavity.



## How does a hiatal hernia affect reflux symptoms?

The anatomy in the chest cavity maintains lower pressure than the abdominal cavity. When the stomach moves up, it's difficult to maintain adequate pressure in the stomach, which contributes to an incomplete closure of the gastrointestinal valve (GEV). This breaks down the extremely important high-pressure zone and can contribute to increased GERD symptoms, especially when lying down.

## How does a physician diagnose a hiatal hernia?

1. First, a physician performs an endoscopy procedure to examine the esophagus for erosive esophagitis and other conditions before evaluating the GEV and measuring the hiatal hernia if present.
2. The physician then performs an esophagogastroduodenoscopy (EGD), a normally quick and painless inspection of the stomach and duodenum.
3. To spot any anatomic abnormalities such as a hiatal hernia, blockages, inflammation of the esophagus, and free reflux, the physician may also perform an upper GI series. Typically lasting 30 minutes, this procedure involves the patient ingesting a solution that the physician monitors via x-ray. The procedure may rule out esophageal disorders such as achalasia, which can cause reflux-like symptoms.

# How does a physician repair a hiatal hernia?

1. Under general anesthesia, a surgeon accesses the underside of diaphragm using minimally invasive laparoscopic techniques.
2. Depending on the anatomy and size of defect, the surgeon repairs the ligaments with stiches and/or mesh. Your surgeon does not open, remove, or reroute anything during the procedure.

## Can the TIF<sup>®</sup> procedure relieve reflux for someone with a hiatal hernia?

Yes. The EsophyX device uses suction to “reduce” small sliding hiatal hernias of 2cm or less. The suction helps the physician move the GEV below the diaphragm while it’s being repaired. If your hiatal hernia is larger than 2cm, your physician performs a TIF procedure with an endoscope after repairing the sliding hiatal hernia laparoscopically.

### **Combined procedure benefits:**

- Only put under general anesthesia once
- Length of stay in the facility usually doesn’t change
- Usually return home the same day as the procedure
- Recovery time for combined procedures is the same as having the TIF procedure on its own, minor incisions heal normally



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**GERDHELP.com**



The TIF procedure may not be appropriate for your condition and results may vary. Talk to your doctor about benefits and risks.

EsophyX technologies are indicated for use in transoral tissue approximation, full thickness plication and ligation in the GI tract and are indicated for the treatment of symptomatic chronic gastroesophageal reflux disease in patients who require and respond to pharmacological therapy. It is also indicated to narrow the gastroesophageal junction and reduce hiatal hernia  $\leq$  2cm in size in patients with symptomatic chronic gastroesophageal reflux disease. Patients with hiatal hernias larger than 2cm may be included, when a laparoscopic hiatal hernia repair reduces the hernia to 2cm or less.

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