

What to expect

Before the procedure

Your physician will determine if you are a candidate by having you undergo diagnostic testing. You will receive instructions on when to stop eating and drinking just prior to the TIF procedure.

During the procedure

The TIF procedure is performed under general anesthesia and generally takes less than an hour. The EsophyX® device and an endoscope are introduced together through your mouth (transorally) and advanced into the esophagus. With visualization provided by the endoscope, the surgeon uses the EsophyX® device to reconstruct and form a new valve.

After the procedure

You may be able to return home the next day as well as go back to work and resume most normal activities within a few days. You should expect to experience some discomfort in your stomach, chest, nose, and throat for three to seven days after the procedure. While your newly reconstructed valve heals, you will be on a modified diet.

For questions or to schedule an appointment, please call **423-778-4830**.

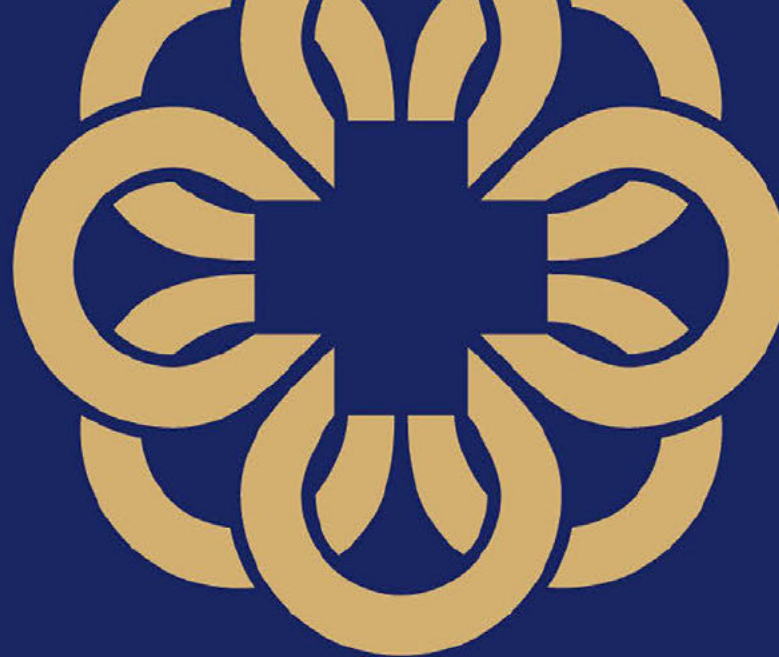
To learn more about Erlanger Academic Gastroenterology's TIF procedure, visit www.erlanger.org/tif.

Sources:

¹ www.fda.gov

² Varin, O., et al. Arch Surg. 2009; 144(3): 273-278

³ Trad KS, et al; Surg Endosc. 2016 Sept 21



The TIF Procedure

An incisionless solution for acid reflux



Gastroenterology

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Gastroenterology

Reflux, the root of discomfort.

Most people associate acid reflux with its most typical symptoms: heartburn and regurgitation. These indicators are usually attributed to gastroesophageal reflux disease (GERD), caused by the reflux, or backflow, of stomach fluids up into the lower esophagus.

But reflux can extend beyond the lower esophagus, causing a series of symptoms not immediately associated with heartburn, varying from mild to moderate to severe. You may experience any of the following atypical symptoms:

- Gas and Bloating
- Soreness of Chest and Throat/ Throat Clearing
- Trouble Sleeping
- Persistent Cough

These symptoms can indicate laryngopharyngeal reflux (LPR). Patients suffering from LPR may not experience heartburn, and therefore do not achieve sufficient relief from traditional reflux medications like proton pump inhibitors (PPIs), which only reduce the acid content of the stomach.

What causes reflux?

Reflux is caused by changes in the gastroesophageal valve (GEV) that allows acid to flow back from the stomach into the esophagus. The GEV is the body's natural antireflux barrier.

What is gastroesophageal reflux disease (GERD)?

While experiencing occasional heartburn and acid reflux is normal, symptoms surfacing consistently more than twice a week could be a sign of GERD.

GERD symptoms may affect patients differently and involve symptoms which may vary from mild to moderate to severe. You may experience any of the typical and atypical symptoms listed below:

- Heartburn
- Regurgitation
- Gas and Bloating
- Soreness of Chest and Throat/ Throat Clearing
- Trouble Sleeping
- Persistent Cough

Treatment options

Depending on the severity of GERD-related symptoms, treatment may involve lifestyle modifications, medical therapy or antireflux surgery.

Dietary and lifestyle changes may help mild GERD sufferers with infrequent symptoms find relief.

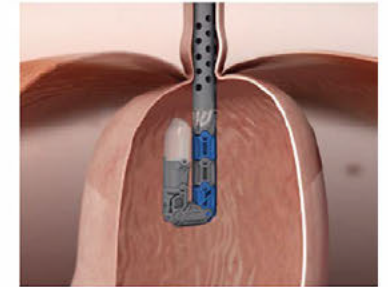
Over the counter and prescribed pharmaceuticals provide temporary relief, but do not treat the underlying anatomical problem or stop the disease from worsening. Proton pump inhibitors (PPIs), the most effective medical therapy for GERD, are generally approved for 8 weeks of use. While safe and effective for most patients, studies evaluating long-term PPI use demonstrate a series of undesirable side effects—visit FDA.gov for more information.¹

Conventional antireflux surgery has been long considered an effective solution to treating GERD, but typically includes side effects, such as difficulty swallowing (26%), bloating (36%), and increased flatulence (65%).²

The TIF procedure for reflux treats the underlying cause of GERD without incisions. This innovative procedure rebuilds the antireflux valve and restores the body's natural protection against reflux.

What is the TIF procedure for reflux?

Transoral Incisionless Fundoplication (TIF) is a procedure that treats LPR and GERD at its source. This incisionless approach uses the EsophyX[®] device to rebuild an antireflux valve to restore the body's natural protection against acid reflux.



By accessing the gastroesophageal junction through the mouth, there are no scars, minimizing complications, and possibly leading to a quicker recovery.

FAQs

Is the TIF procedure effective?

Yes! In a 2016 study, 90% of patients experienced a reduction of their symptoms below the LPR threshold. More than 88% of patients experienced elimination of all daily troublesome atypical symptoms. 71% of patients were able to completely stop taking their PPIs after the TIF procedure.³

Is the TIF procedure safe?

The TIF procedure has an excellent safety profile. It has been performed on more than 20,000 patients with minimal complications. Clinical studies demonstrate that TIF patients rarely experience long-term side effects commonly associated with traditional antireflux surgery such as chronic dysphagia (trouble swallowing), gas bloat syndrome, and increased flatulence.

What are the benefits of the TIF procedure?

- No external skin incisions—no scarring
- No internal cutting or dissecting of the natural anatomy—more rapid recovery
- Very safe. Fewer adverse complications than other antireflux surgical procedures
- Does not limit future treatment options