

# TIF<sup>®</sup> PROCEDURE WITH Esophyx<sup>®</sup> Z+ DEVICE



**Treating the Root  
Cause of Reflux**  
for Long-Term GERD Relief  
Without the Side Effects<sup>1</sup>



 **GERDHELP**<sup>®</sup>.com

# What is GERD?

Gastroesophageal reflux disease (GERD) is a chronic condition caused by changes in the gastroesophageal valve that allow acid to flow back from the stomach into the esophagus. GERD can have a significant impact on quality of life and can result in both typical and atypical bothersome symptoms.

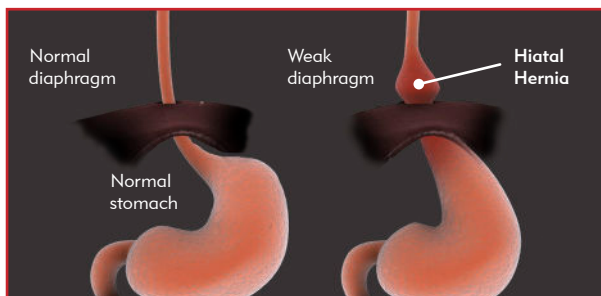
## COMMON SYMPTOMS INCLUDE

- ▶ HEARTBURN
- ▶ CHEST PAIN
- ▶ REGURGITATION
- ▶ TROUBLE SWALLOWING
- ▶ FOOD SENSITIVITY

When reflux extends beyond the lower esophagus, it can cause symptoms not immediately associated with heartburn, including trouble sleeping, sore throat, persistent cough, and gas & bloating. These symptoms can indicate laryngopharyngeal reflux (LPR).

# What is a Hiatal Hernia?

Hiatal hernias are a common finding contributing to reflux symptoms. A hiatal hernia occurs when a portion of the stomach moves up into the chest cavity. A large hiatal hernia can contribute to chronic acid reflux when the hiatus (the hole in the diaphragm that allows food and liquids to pass into the stomach) enlarges, allowing stomach contents to flow back into the esophagus, causing heartburn.

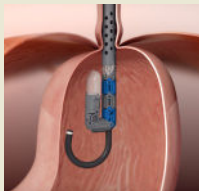


*When left untreated, reflux can lead to serious conditions, including Barrett's esophagus and esophageal cancer.*

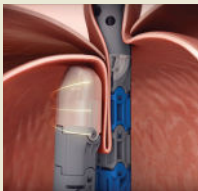
# What is the TIF 2.0<sup>®</sup> procedure?

TIF, or transoral incisionless fundoplication, is a procedure that treats symptomatic GERD by reconstructing the antireflux barrier to restore the body’s natural protection against reflux without incisions.

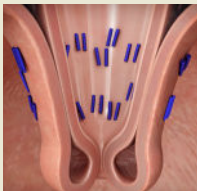
By restoring the natural shape, location, and effectiveness of the esophageal valve, the TIF 2.0 procedure addresses the root cause of reflux.



First, the esophagus is lengthened.



Then, the top of the stomach is gently folded and partially wrapped around the lower esophagus.



The wrap is held in place with SerosaFuse<sup>®</sup> Fasteners, which are made of non-resorbable polypropylene.

# What is the cTIF<sup>®</sup> procedure?

The cTIF procedure is when the TIF 2.0 procedure is performed directly after a laparoscopic hiatal hernia repair, under the same general anesthesia setting.

	TIF 2.0	cTIF
Minimally Invasive	✓	✓
Incisionless	✓	
Restores Natural Anatomy	✓	✓
Repairs Small Hernia (<2cm)	✓	
Repairs Large Hernia (2-5cm)		✓
No Metal Implants	✓	✓
Shorter Recovery Time <sup>4</sup>	✓	✓

The TIF 2.0 procedure is always incisionless. However, in a cTIF procedure, the hiatal hernia repair, which requires small incisions, is completed first and then followed by the incisionless TIF 2.0 procedure to fix the faulty valve.

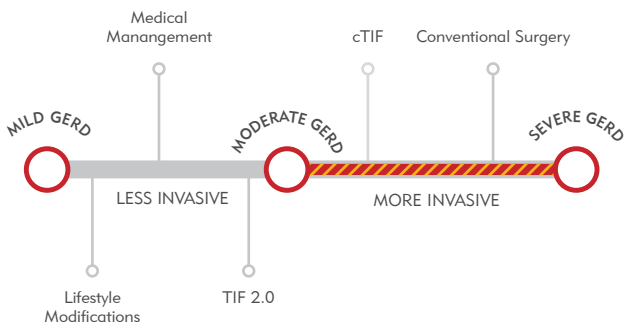
# Why TIF 2.0 or cTIF?

No dysphagia or gas bloat seen with traditional antireflux surgeries<sup>1</sup>

No metal implants

Most patients off of daily PPIs<sup>2</sup>

Shorter recovery time<sup>4</sup>



Medications can provide temporary symptom relief, but do not treat the underlying anatomical problem or stop GERD from progressing.

Conventional antireflux surgery can be an effective solution, but typically includes side effects such as difficulty swallowing, bloating, and increased flatulence. TIF 2.0 and cTIF treat the underlying cause of GERD, without the side effects.<sup>1</sup>

# Frequently Asked Questions

**IS IT EFFECTIVE?** Clinical studies show that TIF 2.0 and cTIF are effective for treating typical and atypical symptoms of GERD. Most patients no longer take daily PPIs and report having effective symptom control.<sup>1,2</sup>

**IS IT SAFE?** Clinical studies demonstrate that patients rarely report experiencing long-term side effects associated with traditional antireflux surgery.<sup>1,3</sup> Please note that there is still potential for adverse events associated with the risk of using the EsophyX<sup>®</sup> Z+ device in the TIF 2.0 procedure. Please consult your clinician to discuss those risks.



“

I had my TIF 2.0 procedure in August of 2021 and I haven't taken a PPI since! Now my life is totally back to normal. I haven't thought about my GERD symptoms in years.

– Dillon  
*Real TIF Patient*

”



Scan the QR code to learn more about  
TIF 2.0 and cTIF



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The enclosed information is not intended nor recommended as a substitute for medical advice, diagnosis or treatment. Always seek the advice of a qualified physician regarding any medical questions or conditions.

The TIF 2.0 procedure for reflux may not be appropriate for your condition and results may vary. Talk to your doctor about benefits and risks.

#### Sources:

1. Janu, et al. HH+TIF: Efficacy and safety in two community hospitals. Surg Innov 2019 Sep.
2. Haseeb, et al. Impact of Second Generation Transoral Incisionless Fundoplication on atypical GERD symptoms: a systematic review and meta-analysis. Gastrointest Endosc, 2022 Nov.
3. Merit Medical Systems, Inc., Data on File
4. Jaruvongvanich, Veeravich, et al. "881 Multicenter Comparative Study of Hiatal Hernia Repair with Transoral Incisionless Fundoplication versus Nissen Fundoplication for the Treatment of Gastroesophageal Reflux Disease." Gastrointestinal Endoscopy, vol. 91, no. 6, 2020, <https://doi.org/10.1016/j.gie.2020.03.609>.

Merit Medical defines the term "cTIF" as a **consecutive** Transoral Incisionless Fundoplication which consists of a Hiatal Hernia Repair (HHR) followed by a Transoral Incisionless Fundoplication (TIF) procedure under a single anesthesia setting.



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