

# Facing Surgery for GERD (Gastroesophageal Reflux Disease)?

Learn about minimally invasive  
**da Vinci® Surgery**



**da Vinci**. **Surgery**

# The Condition

## **GERD, Hiatal Hernia**

Gastroesophageal reflux disease or GERD occurs when stomach acid flows back into your esophagus (tube from the mouth to the stomach) and irritates the lining. GERD can occur when your lower esophageal sphincter (valve between your esophagus and stomach) weakens and causes stomach contents to rise (reflux).

The most common symptoms of GERD are frequent acid reflux and heartburn. Other symptoms may include a dry cough, wheezing, asthma, pneumonia, nausea and vomiting.<sup>1</sup>

GERD is sometimes caused by a hiatal hernia which occurs when part of your stomach moves up toward your diaphragm or chest. Other causes of GERD may include: obesity, pregnancy, certain medicines, smoking, or second-hand smoke.<sup>1</sup> Most people can manage their GERD symptoms with lifestyle changes and/or medicines, while others may need surgery.



## Surgery Options

Surgery to ease or stop reflux and repair hiatal hernia in patients with GERD is called Nissen fundoplication. This surgery involves tightening the lower esophageal sphincter by wrapping the top of the stomach around the outside of the lower esophagus.

Your doctor may use open surgery or minimally invasive surgery, which includes traditional laparoscopy or robotically-assisted *da Vinci* Surgery.

**Open Surgery:** During open surgery, a large incision (cut) is made in your abdomen. This allows doctors to reach your organs as they operate.

**Minimally Invasive Surgery:** During minimally invasive surgery, also known as laparoscopy, your surgeon operates through a few small incisions using long, thin instruments and a tiny camera that guides doctors as they operate.

Another minimally invasive surgery option is robotically-assisted ***da Vinci* Surgery**.



Open Surgery  
Incision

*da Vinci* Surgery/  
Laparoscopy Incisions

# *da Vinci* Surgery:

## A Minimally Invasive Surgery Option

If your doctor suggests surgery for GERD and its symptoms, ask about minimally invasive *da Vinci* Surgery.

The *da Vinci* Surgical System gives surgeons:

- Magnified 3D HD view inside your body
- Tiny instruments that bend and rotate far greater than the human hand
- Enhanced vision, precision, and control

Your doctor controls the *da Vinci* System, which translates his/her hand movements into smaller, precise movements of tiny instruments inside your body.

**The *da Vinci* System has brought minimally invasive surgery to more than 3 million patients worldwide.**

If you are thinking of having surgery, ask your doctor about the potential benefits of *da Vinci* Surgery.

### **Risks & Considerations Related to Nissen**

**Fundoplication (acid reflux surgery):** tear/hole in the stomach lining, tear in the small intestine or esophagus, the stomach wrap around the esophagus pushes into the chest or breaks down, narrowing or tightening of the esophagus that makes swallowing difficult, collapsed lung, difficulty swallowing, bloating and discomfort from gas buildup, hiatal hernia which occurs when the stomach bulges into the chest through a hole in the diaphragm (muscle separating the chest from the abdomen).

### **Important Patient Safety Information:**

Serious complications may occur in any surgery, including *da Vinci*<sup>®</sup> Surgery, up to and including death. Risks include, but are not limited to, injury to tissues and organs and conversion to other surgical techniques. If your doctor needs to convert the surgery to another surgical technique, this could result in a longer operative time, additional time under anesthesia, additional or larger incisions and/or increased complications. Individual surgical results may vary. Patients who are not candidates for non-robotic minimally invasive surgery are also not candidates for *da Vinci* Surgery. Patients should talk to their doctor to decide if *da Vinci* Surgery is right for them. Patients and doctors should review all available information on non-surgical and surgical options in order to make an informed decision. Please also refer to [www.daVinciSurgery.com/Safety](http://www.daVinciSurgery.com/Safety) for Important Safety Information.

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Your doctor is one of a growing number of surgeons worldwide offering *da Vinci*<sup>®</sup> Surgery.

For more information and to find a *da Vinci* surgeon near you, visit:  
[www.daVinciSurgery.com](http://www.daVinciSurgery.com)

<sup>1</sup> National Digestive Diseases Information Clearinghouse; National Institutes of Health; Gastroesophageal Reflux (GER) and Gastroesophageal Reflux Disease (GERD) in Adults. From: <http://digestive.niddk.nih.gov/ddiseases/pubs/gerd/#symptoms>.