

Facing Surgery for GERD (Gastroesophageal Reflux Disease)?

Learn about minimally invasive
da Vinci® Surgery



da Vinci. **Surgery**

The Conditions:

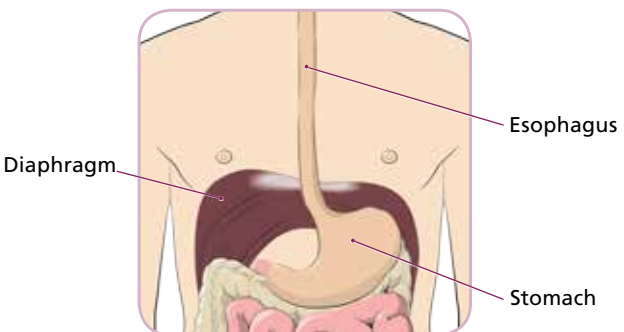
GERD, Hiatal Hernia

Gastroesophageal reflux disease or GERD is a common disease that occurs when stomach acid flows back into your esophagus (tube that leads 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 signs and symptoms of GERD are frequent acid reflux and heartburn. Other symptoms may include a dry cough, wheezing, asthma, pneumonia, nausea and vomiting.¹ About 5-7% of people worldwide suffer from GERD.²

GERD is sometimes caused by a hiatal hernia. Hiatal hernias occur 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.¹ GERD can strike at any age.¹

Most people can manage the symptoms of GERD with lifestyle changes and medicines. For others, these remedies only provide temporary relief.



The Digestive Tract

The Surgery:

Nissen Fundoplication

Treatment options often depend on your symptoms, how often they occur, your age and overall health. If medicine and lifestyle changes do not ease your symptoms, your doctor may suggest surgery.

Surgery to repair hiatal hernia or reduce/stop reflux 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.

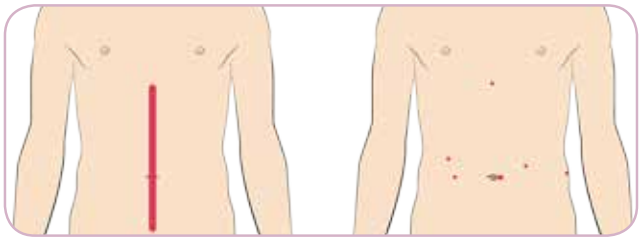
Your doctor may perform the procedure using open surgery, laparoscopy or robotically-assisted *da Vinci* Surgery.

With open surgery, an incision is made in your abdomen which must be large enough for your surgeon to fit his or her hands inside your body to reach your organs.



Laparoscopy or laparoscopic surgery is minimally invasive. This means your surgeon operates through a few small incisions in the abdomen using long, thin instruments and a tiny camera. The camera sends images to a video screen in the operating room to guide doctors as they operate.

There is another minimally invasive surgical option for patients facing surgery: state-of-the-art *da Vinci* Surgery.



Open Surgery
Incision

da Vinci Surgery/
Laparoscopy Incisions



da Vinci Surgery:

A Minimally Invasive Surgical 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 vision system
- Wristed instruments that bend and rotate far greater than the human hand
- Enhanced vision, precision, and control

If you are thinking about 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 Information for Patients:

Serious complications may occur in any surgery, including *da Vinci*[®] Surgery, up to and including death. Examples of serious or life-threatening complications, which may require prolonged and/or unexpected hospitalization and/or reoperation, include but are not limited to, one or more of the following: injury to tissues/organs, bleeding, infection and internal scarring that can cause long-lasting dysfunction/pain. Risks of surgery also include the potential for equipment failure and/or human error. Individual surgical results may vary.

Risks specific to minimally invasive surgery, including *da Vinci* Surgery, include but are not limited to, one or more of the following: temporary pain/nerve injury associated with positioning; temporary pain/discomfort from the use of air or gas in the procedure; a longer operation and time under anesthesia and conversion to another surgical technique. 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.

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. For Important Safety Information, including surgical risks, indications, and considerations and contraindications for use, please also refer to www.davincisurgery.com/safety and www.intuitivesurgical.com/safety.

All people depicted unless otherwise noted are models. © 2015 Intuitive Surgical. All rights reserved. All product names are trademarks or registered trademarks of their respective holders. PN 871257 Rev B 12/2015

The Enabling Technology: *da Vinci* Surgical System

The *da Vinci* Surgical System is designed to provide surgeons with enhanced capabilities, including high-definition 3D vision and a magnified view. Your doctor controls the *da Vinci* System, which translates his or her hand movements into smaller, precise movements of tiny instruments inside your body.



Though it is often called a "robot," *da Vinci* cannot act on its own. Surgery is performed entirely by your doctor. Together, *da Vinci* technology allows your doctor to operate through just a few small openings, similar to traditional laparoscopy.

Over the last decade, the *da Vinci* System has brought minimally invasive surgery to over 3 million patients worldwide. *da Vinci* - changing the experience of surgery for people around the world.

Your doctor is one of a growing number of surgeons worldwide offering *da Vinci*[®] Surgery.

For more information and to find a *da Vinci* surgeon near you, visit:

www.daVinciSurgery.com

¹ 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>. ² International Foundation for Functional Gastrointestinal Disorders. "GERD Costs America Nearly \$2 Billion Each Week in Lost Productivity." From: <http://www.iffgd.org/site/news-events/press-releases/2005-1125-gerd-costs>.