

What are the benefits of using the *da Vinci*® Surgical System over traditional open methods of surgery?

Some of the major benefits experienced by surgeons using the *da Vinci*® Surgical System over traditional open methods of surgery have been greater surgical precision, increased range of motion, improved dexterity and enhanced 3D visualization. Benefits patients have experienced over open surgery include: shorter hospital stay, less pain, less risk of infection, less blood loss and transfusions, less scarring and faster recovery and return to normal daily activities. None of these benefits can be guaranteed, however, as surgery can be both patient and procedure specific.



This brochure is provided for general information purposes only and is meant to be just one part of your decision-making process. Consult your doctor or surgeon about whether robotic surgery may be appropriate for you and about the risks and benefits of all medical treatment options. Like any printed material, it may become out of date over time. If you have questions about the *da Vinci*® Surgical System or the Patient Brochure, please consult with your physician.

This brochure is not intended to render medical advice, diagnosis, treatment or other medical services, and thus is not a substitute for the advice of a doctor, or a recommendation for any particular treatment option. It is important that patients considering the option of robotic surgery rely on the advice of a doctor who, by exercising good clinical judgment and taking into consideration the medical history and circumstances of the patient, is best able to advise whether the *da Vinci* Surgical System may be appropriate for an individual patient.

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For more information about *da Vinci*® Surgical System and Intuitive Surgical visit www.intuitivesurgical.com

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da Vinci™ Nissen Fundoplication



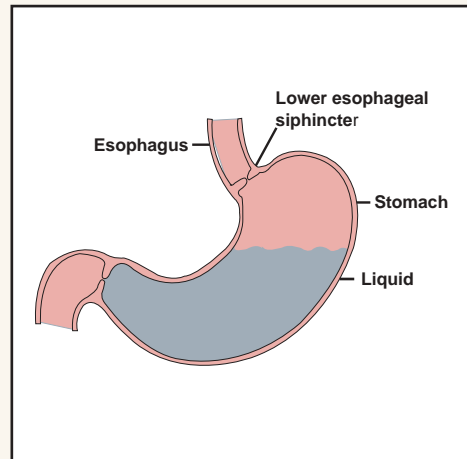
Changing the Experience of Surgery

da Vinci™ Nissen Fundoplication

Gastroesophageal reflux disease (GERD), is a common disorder that affects an estimated 21 million Americans. Although GERD affects 5 to 7 percent of the world's population, its symptoms are often misunderstood and is often left untreated. It is estimated that only half of the patients with chronic heartburn are identified and only half of those receive treatment and of those treated half are treated adequately meaning only 12 percent are being optimally managed.

What is robotic assisted surgery?

Chronic heartburn, also known as gastroesophageal reflux disease symptoms are caused by stomach acid that backs up (refluxes) into the esophagus, the tube that carries food from the mouth to the stomach. The acid is irritating to the esophagus and causes the main symptom of GERD/heartburn—a burning pain that may be felt in the chest and/or back of the throat.



What causes chronic heartburn?

When you swallow, a muscular valve known as the lower esophageal sphincter, or LES, which is located where the esophagus joins the stomach, opens to let food into your stomach and then closes to keep your stomach contents from coming back up. The major cause of GERD is that this valve does not function the way it should either because it is weak or because it relaxes inappropriately. Hiatal hernia is a common cause of a weak LES.

Diet and lifestyle also play a role. Fatty foods, mints, chocolate, alcohol, coffee, and tea all relax the LES. So does nicotine, from cigarettes or chewing tobacco or even hormonal changes associated with pregnancy can temporarily weaken the LES. Obesity is another factor that can lead to GERD because the pressure of extra weight pushing on your abdomen may "overpower" the LES, allowing reflux to occur. The same mechanism for reflux may also occur when you bend over at the waist.



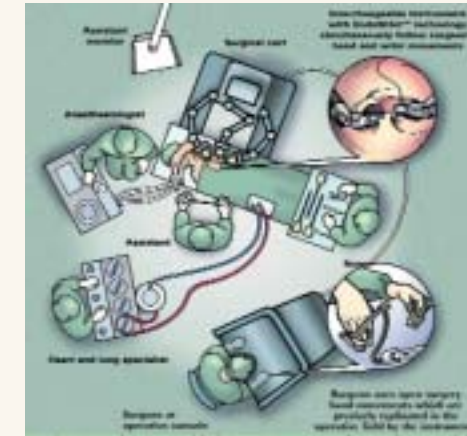
How is GERD treated?



Laparoscopic Nissen fundoplication surgery is the most common surgery used to treat gastroesophageal reflux disease. This surgery strengthens the valve between the esophagus and stomach (lower esophageal sphincter), which keeps acid from backing up into the esophagus as easily. The surgery is performed through five small pencil-size incisions.

There's also another minimally invasive method called the *da Vinci™* Nissen Fundoplication. This method involves a similar process but incorporates the latest advancements in robotics and computer technology, which allows your surgeon to perform minimally invasive procedures in a manner never experienced before.

What is the *da Vinci®* Surgical System?



The *da Vinci®* Surgical System is a totally "intuitive" laparoscopic surgical robot. It's not a robot in the sense of one you would imagine but one that integrates the latest advancements in robotics, computer-enhanced technology and the surgeon's skill. The System consists of several components: a surgeon console, patient-side cart, instruments and image processing equipment.

Will the *da Vinci®* System make my surgeon unnecessary?

On the contrary, it is designed to enable your surgeon to be more precise, advancing his/her technique and enhancing his/her capability to perform complex minimally invasive surgery. The System replicates your surgeon's movements in real time. It cannot be programmed, nor can it make decisions on its own to move in any way or perform any type of surgical maneuver without your surgeon's input.

