



## Acid Reflux Surgery

### Correction of Acid Reflux with Laparoscopy

It is helpful to understand some intestinal anatomy when trying to understand laparoscopy. The esophagus moves food down the throat into the stomach with muscular contractions. The lower esophageal sphincter (LES) is at the end of the esophagus. To prevent reflux, the LES needs to remain tightly closed until ingested food or liquid arrives. The LES relaxes when this ingested material arrives allowing the food and liquid to pass into the stomach. Then the LES contracts to prevent the contents of the stomach that contain acid, bile salts, and enzymes from moving up the esophagus.

### Laparoscopy

Most females are familiar with laparoscopy. Gynecologists use this technique to tie the Fallopian tubes and also in the inspection of female reproductive organs. This technique is now employed in the correction of severe acid reflux disease and esophagitis. Using new video technology, the laparoscope is now actually a miniature video camera. Image magnification is now possible and can show the organs of abdomen in detail.

### Laparoscopic Fundoplication

Fundoplication is the medical term for folding or wrapping. During this procedure, a surgeon actually folds the upper stomach. The patient is given a general anesthesia for this procedure. Surgeons use carbon dioxide to inflate the abdomen through a small incision at the naval. A thin tube with a video camera, is inserted into that incision. Four incisions are then made in the upper part of the abdomen and other instruments necessary for the surgery are inserted into them. These instruments behave like the hands of the surgeon. These instruments allow the surgeon to dissect and suture during surgery. The upper part of the stomach is wrapped and sutured around the esophagus. This surgical technique restores normal pressure to the LES and subsequently prevents stomach contents containing acid from refluxing back into the esophagus. The patient can take clear liquids immediately after surgery and are most likely to be discharged on the same day.

The five tiny incisions leave only slight blemishes and heal rather quickly. Most patients can return to normal activities within a week. A diet considerate of acid reflux is recommended for a period of one to two weeks. Pain is usually very minimal most generally requires no medication after the first initial days after surgery.

### The Benefits of Laparoscopic Surgery

Elimination or improvement in heartburn symptoms without need for medication is the main benefit of this type of surgical procedure. The risk stricture of the esophagus is reduced as well.

No large or painful incisions are required for this surgical procedure. The surgical procedure is now considered same day surgery reducing hospital stay and promoting a fast recovery. The

hospital expenses are usually less in comparison to older surgical methods and with quick recovery times there are far less lost days from work.

### **Are there Complications?**

There is always risk with general anesthesia, although it is very rare, during any type of surgery. Internal bleeding or infection can also occur after surgery. Gas bloating is a common uncomfortable side effect of this surgical technique, but it is short term and usually subsides within the first week after surgery. Once the LES muscle has been tightened, the patient may experience difficulty belching resulting in a discomfort. In some case involving especially obese patients, the surgeon may be unable to perform the laparoscopic technique.

### **Other Treatment Options**

Doctors prescribe medications to reduce acid contained in the stomach thereby lessening the damaging effects of reflux. The PPI drugs can nearly eliminate stomach acid. Patients usually experience no adverse side effects from taking these drugs over long periods of time and this in turn may make surgery unnecessary. Patients need surgery usually when drug based treatments are ineffective, or when the patient chooses to opt out of long term drug treatment for surgery.

### **Who Should not Have the Procedure?**

In some cases this surgical procedure is not recommend. The following circumstances are general cause for caution but each case should be individually evaluated:

- Poor normal muscle function of the esophagus.
- This is condition is called dysmotility
- Pregnancy
- Esophageal cancer
- Precancerous states of the esophagus

**The following conditions make this surgical procedure difficult and often times not recommended:**

- Extreme obesity
- Previous surgery producing adhesions
- A shortened esophagus