

## PATIENT INFORMATION ON LAPAROSCOPIC ANTI-REFLUX SURGERY

### What is Gastroesophageal Reflux Disease (GERD)?

• Although “heartburn” is often used to describe a variety of digestive problems, this term more accurately describes the main symptom of gastroesophageal reflux disease (GERD). In this condition stomach acids reflux, or “back up”, from the stomach into the esophagus. Patients usually characterize heartburn as a harsh, burning sensation behind the breastbone (sternum). This pain may radiate to the back of the chest or into the throat and neck. Many adults in the United States experience heartburn at least once a month. Other symptoms of reflux include vomiting, difficulty swallowing, chronic coughing, or wheezing.

### What Causes GERD?

• When you eat, food travels from your mouth to your stomach through a tube called the esophagus. A small ring of muscle, called the lower esophageal sphincter (LES), is located at the lower end of the esophagus. The LES acts like a one-way valve, allowing food to pass through to the stomach, then closing immediately afterwards to prevent reflux of acidic stomach juices into the esophagus. Reflux occurs when the LES malfunctions and allows acid to irritate the lower esophagus. This inflames the lining of the esophagus and may eventually lead to ulceration, scarring, and narrowing of the esophagus.

### What Contributes to GERD?

• Some people are born with a naturally weak sphincter (LES). For others, however, fatty and spicy foods, certain medications, tight clothing, smoking, drinking alcohol, vigorous exercise, or changes in body position (bending over or lying down) cause the LES to relax, producing reflux. A hiatal hernia (a term erroneously used interchangeably with reflux disease) may or may not be present in patients with reflux. There are a number of people with reflux who do not have a hiatal hernia, just as there are many people with a hiatal hernia who do not reflux.

### How is GERD Treated?

- Reflux is generally treated in three progressive steps:
  1. **Lifestyle Changes:** In many cases, changing diet, losing weight, reducing smoking and alcohol consumption, and altering eating and sleeping patterns reduce the frequency and harshness of symptoms.
  2. **Drug Therapy:** If symptoms persist after these lifestyle changes, drug therapy may be required. Antacids such as Maalox, Riopan, and Amphogel neutralize stomach acids. Over-the-counter medications (such as Pepcid AC and Tagamet AC) reduce the amount of acid produced by the stomach. Both may be effective in relieving symptoms, but if they do not work, stronger prescription drugs may be required. This therapy needs to be discussed with your surgeon.
  3. **Surgery:** Patients who do not improve with lifestyle changes or drug therapy, or who continually require medications to control their symptoms, are candidates for surgery. Surgery is very effective in treating GERD. However, until recently this operation required a large abdominal incision resulting in significant pain and a recovery period of six weeks or more. Now we use a laparoscope to do the procedure, avoiding the necessity of a large abdominal incision.

### How is Laparoscopic Anti-Reflux Surgery Performed?

- Laparoscopic anti-reflux surgery (commonly referred to as **Laparoscopic Nissen Fundoplication**) involves reinforcing the “valve” between the esophagus and the stomach by wrapping the upper portion of the stomach around the lowest portion of the esophagus--much the way a bun fits around a hot dog.
- In a laparoscopic procedure, surgeons insert cannulas (narrow tubes) through small incisions (1/4 to 1/2 inch) to enter the abdomen. The laparoscope, which is connected to a tiny video camera, is inserted through the cannula, and gives the surgeon a clear, magnified view of the patient's internal organs on a television screen. Instruments such as forceps and scissors are inserted through other incisions and the entire operation is performed “inside” without making a large incision.

### What are the Risks of Laparoscopic Anti-Reflux Surgery?

Although the operation is considered safe, complications may occur, as they may occur with any operation.

#### Complications during the operation may include:

Adverse reaction to general anesthesia, bleeding, or injury to the esophagus, spleen, or the stomach.

#### Complications after the operation may include:

Infection of the wound, abdomen, or blood.

### What Happens if the Operation Cannot be Performed Laparoscopically?

• In a small number of patients the laparoscopic method is not feasible because of the inability to visualize or handle the organs effectively. Factors that increase the possibility of converting to an “open” procedure include obesity, bleeding problems during the operation, or a history of prior abdominal surgery causing dense scar tissue. The decision to perform an open procedure is made by your surgeon either before or during the actual operation and is based strictly on patient safety.

### What are the Side Effects of this Operation?

• Long-term side effects of this procedure are generally uncommon.

- Some patients develop temporary difficulty swallowing immediately after the operation. This usually resolves within one to three months after surgery. Occasionally, these patients require a simple procedure to expand or dilate the esophagus (endoscopic dilation). Rarely they need another operation.
- There may be a limited ability to belch or vomit following this procedure. Some patients complain of abdominal bloating.
- Rarely, patients report no improvement in their symptoms.

### **What are the Expected Results after Laparoscopic Anti-Reflux Surgery?**

- Studies have shown that the vast majority of patients who undergo the procedure become symptom-free or have significant improvement in their symptoms.

#### **The advantage of the laparoscopic approach is that it usually provides:**

1. Reduced post-operative pain.
2. Shorter hospital stay.
3. A faster return to work.
4. Improved cosmetic result.

### **What Preparation is Required for Laparoscopic Anti-Reflux Surgery?**

- To determine if you are a candidate for laparoscopic anti-reflux surgery, your surgeon will perform a thorough medical evaluation. Diagnostic tests will be done to evaluate whether or not this operation will be of benefit to you.
- You should refrain from eating, drinking, and chewing tobacco after midnight the night before your operation. You also should refrain from smoking 24 hours before your operation, due to the high level of carbon monoxide smoking delivers to the bloodstream. People who smoke prior to general anesthesia are 20 times more likely than non-smokers to have episodes of inadequate oxygen supply to the heart (which could be interpreted as a heart attack).
- If you take medication on a daily basis, our surgeons request that only heart and blood pressure medications be taken with a sip of water the morning of your operation (unless otherwise instructed). If you take aspirin, blood thinners, or arthritis medication, your surgeon will discuss the proper time to discontinue these before your operation. If you are on insulin, take half of your usual morning dose the day of surgery, unless otherwise indicated by your doctor. Your blood sugar will be checked at the hospital before your operation.
- If you take antibiotics prior to a dental procedure, please alert your surgeon. You may also require an antibiotic prior to your surgery.
- You should bathe or shower the night before, or the morning of, your operation, taking care to clean the umbilicus (belly button) with a Q-tip using soap and water. Your surgeon will tell you if any type of bowel preparation is needed before surgery.
- Routine pre-operative testing may be required (blood tests, EKG, chest x-ray). Depending on your medical condition, you may need clearance from your cardiologist, pulmonologist, or family physician before your operation can be performed.

### **What to Expect After Surgery:**

- Most patients will stay over night and go home the next day. If the patient develops any type of a problem in the post-operative period, he will remain in the hospital and be released after the problem is resolved.
- Patients are encouraged to engage in light activity the first 2 to 4 days after surgery, then to increase activity daily. The more active you are, the better you will feel.
- Different patients experience different degrees of pain, but most will have some pain for 2 to 4 days after the operation. In addition to incisional pain, laparoscopic operations can cause shoulder pain or chest heaviness which diminishes over several days. Narcotic pain medicine is prescribed with one or two refills. Most people take fewer than 10 tablets, but some patients take enough to require a prescription refill. Be sure to eat before taking pain medicine to avoid nausea or vomiting.
- If nausea occurs and does not subside, please call the office nurse and have your pharmacy number ready. If you feel excessive gas or abdominal bloating you may take an over-the-counter medication such as Mylicon or Maalox-Plus. If you develop worsening pain, a temperature over 101°, redness around the incisions, or yellowish drainage from the incision sites, you may have a wound infection and should call your surgeon as soon as possible.
- If you become constipated (narcotic pain pills can contribute to this), you can take an over-the-counter laxative such as Milk of Magnesia, a Fleets enema, Dulcolax suppositories, or mineral oil, or some warm prune juice.
- Your incisions may ooze watery fluid for a day or two. As long as the wound is oozing, keep it covered with a band-aid or dry gauze dressing. It is normal to develop swelling and bruising around the incisions the first one to two weeks after surgery. You can also develop bleeding at the incision site that results in a hematoma (collection of blood) under the skin. This produces a hard lump that will dissolve in four to six weeks.
- You should not drive for 3 to 5 days after surgery, especially while on narcotic pain medication, since it can cause drowsiness. Once you stop the medication and most of your pain is gone, you may drive.
- You may shower, bathe, or swim (no lakes please) the day after surgery. When sleeping for long periods of time, muscles can become stiff and sore. If you are stiff and sore in the morning stand under a hot shower, this will loosen your muscles.
- You should avoid hard meats & fatty foods after surgery. We suggest soft foods, ground meats, and plenty of liquids for the first 2 to 3 weeks after surgery.
- Please call your surgeon's office to make follow-up appointment:



