

Gastroesophageal Reflux Disease

What is GERD?

GERD is the condition in which acid from the stomach refluxes up from into the esophagus.

What causes GERD?

When you eat, the food travels from your mouth to your stomach through a tube called the esophagus. At the lower end of the esophagus is a small ring of muscle called the lower esophageal sphincter (LES). The LES acts like a one-way valve, allowing food to pass through into the stomach. Normally, the LES closes immediately after swallowing to prevent any reflux of the stomach juices into the esophagus. GERD occurs when the LES does not function properly allowing acid to flow back and burn the lower esophagus. This flow of acid into the esophagus causes inflammation and eventually damages the esophagus.

What contributes to GERD?

Some people are born with a naturally weak sphincter (LES). For others, however, fatty and spicy foods, certain types of medication, tight clothing, smoking, drinking alcohol, vigorous exercise or changes in body position (bending over or lying down) may cause the LES to relax, causing reflux. When a part of the stomach projects above the diaphragm stretching the esophageal hiatus it weakens the LES.

What symptoms do the patients with GERD experience?

The commonest symptom of GERD is heartburn that is described as a burning sensation in the area in between your ribs or just below your neck. The feeling may radiate through the chest and into the throat and neck. Other symptoms may also include bringing fluid up to the back of the throat (regurgitation), difficulty in swallowing and chronic coughing or wheezing.

How is GERD diagnosed?

The doctors diagnose GERD from the typical symptoms that a patient describes. When the symptoms are atypical in nature or do not respond to the initial treatment an endoscopic examination may be carried out. This is carried out with intravenous sedation to relax the patient. A thin, flexible tube is passed from the mouth into the esophagus and stomach to examine them. This often reveals inflammation or ulcers in the esophagus that point to damage caused by the refluxing acid.

Patients who have typical symptoms of GERD but a normal endoscopic examination require a test called 24-hour pH metry. In this test, the patient wears a small wire probe placed through the nose into the esophagus for a 24-hour period. Numbing medicine will be placed in your nose to make insertion of the probes more comfortable. The patient follows his or her usual eating and activity routines after the proper position of the probe. The probe monitors the pH in the lower esophagus from minute to minute and sends signals to a small box attached to a belt that is worn around the waist. After 24 hours the wire probe is removed and the box is attached to a computer. The computer downloads the data collected over 24 hours and analyses it for changes in the pH from minute to minute. It then generates a report with certain values that allow the doctor to decide whether or not the patient suffers from GERD. Another test called manometry may also be required in patients being considered for surgery.

How is GERD treated?

Patients who have GERD are often advised some lifestyle modifications and medication as the first line of treatment.

Lifestyle modifications

- Avoid foods or substances that increase reflux of acid into the esophagus, such as:
- Nicotine (cigarettes)
- Caffeine or coffee
- Chocolate
- Fatty or oily foods
- Alcohol
- Eat smaller, more frequent meals
- Not to eat within 2-3 hours of bedtime
- Avoid bending, stooping, abdominal exercises or tight belts all of which increase abdominal pressure and cause reflux
- If overweight, lose weight as obesity is likely to increase abdominal pressure
- At nighttime elevate the head end of the bed 8 to 10 inches by putting pillows or a wedge under the upper part of the mattress. Gravity helps keep stomach acid out of the esophagus while sleeping

Drugs: Some patients with severe symptoms may be prescribed drugs to reduce the secretion of stomach acid or to increase the muscle strength of the lower esophagus, thereby reducing acid reflux.

When is surgery required for GERD?

Patients who do not respond well to lifestyle changes or medications or those who continually require medications to control their symptoms, will have to live with their condition or may undergo a surgical procedure. Surgery is very effective in treating GERD.

How is laparoscopic surgery performed for GERD?

This operation is performed under general anesthesia. The surgeon makes a small (1cm) incision in the upper abdomen and introduces a cannula or a tube inside the abdomen. He will insert a telescope attached to a miniature video camera through the cannula that gives him and the operating team a magnified view of your internal organs on a video monitor. He will then place four other additional cannulas through tiny (5mm) cuts to accommodate special long instruments. At the surgery, the lower end of the esophagus is completely mobilized. The widened hiatus is narrowed adequately by suturing it and then a collar-like wrap is created by wrapping a part of the stomach around the lower esophagus (fundoplication). This fundoplication acts as a valve. This prevents the acid from the stomach from coming back into the esophagus.

What happens after laparoscopic fundoplication?

The patient does experience some amount of pain for about 12 to 24 hours after laparoscopic fundoplication depending on individual tolerance. Also, some nausea and vomiting is not uncommon in the first 12 hours. Patients are always given medications to relieve the pain and take care of the nausea. Usually, the patient is allowed to drink fluids within 6 to 8 hours of surgery and is allowed soft blenderized food from the day after surgery. Activity is dependent on how the patient feels, but all patients are encouraged to get up and walk as soon as they are comfortable. Most patients go home within a 48 hours after laparoscopic fundoplication. In general, patients recover completely within 10 – 15 days. All patients having a fundoplication need to follow a blenderized diet for around 6 weeks as the area of surgery is healing. Also they are advised to avoid eat slowly, eat small frequent meals and avoid carbonated drinks. After the initial period of 6 weeks a patient is allowed to eat normal food.

How soon can I resume work?

In our society patients often prefer to take things easy for weeks after any operation because of a fear that they may harm themselves by being active. After laparoscopic fundoplication the recovery is quite rapid. Soon after returning home the patients are allowed all activities they feel comfortable with. Depending on the nature of their job, most patients are able to return to work within ten to fifteen days following a laparoscopic fundoplication. Patients with light, desk jobs usually return in a few days while those involved in heavy lifting may require a little more time.

Are there any side effects of laparoscopic fundoplication?

As the fundoplication creates a high-pressure zone or a valve, the esophagus may take some time to get used to the new way of functioning and pushing the food through this new valve. Some patients develop temporary difficulty in swallowing immediately after the operation. This usually resolves within a few months. Occasionally patients may require a procedure to stretch the esophagus (endoscopic dilation) or rarely re-operation. Some patients (5% – 10%) develop a bloating sensation after eating and are unable to belch. This is called “gas bloat”. The ability to belch and or vomit may be limited following this procedure. Patients undergoing surgery are always counseled about both these phenomenon prior to surgery.

What are the advantages of laparoscopic fundoplication?

- Less pain from the incisions after surgery
- Shorter hospital stay
- Shorter recovery time
- Faster return to normal diet
- Faster return to work or normal activity
- Better cosmetic healing

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Disclaimer

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