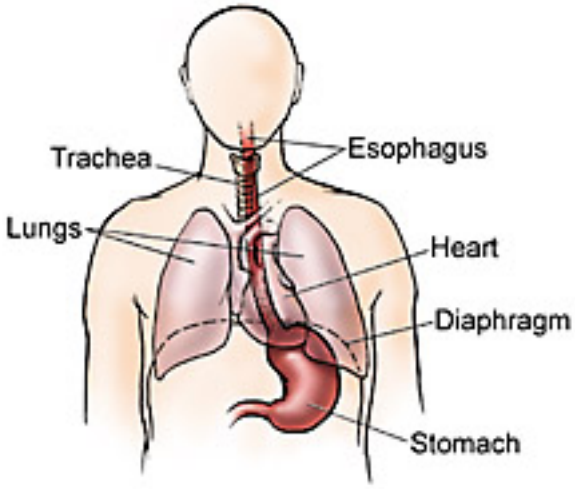
WHAT IS GASTROESOPHAGEAL REFLUX DISEASE (GERD)?

The term gastroesophageal reflux describes the movement (or reflux) of stomach contents back up into the esophagus, the muscular tube that extends from the neck to the abdomen and connects the back of the throat to the stomach. Because the stomach manufactures acid as an aid to digestion, this phenomenon is often referred to as acid reflux. Most people experience acid reflux from time to time as heartburn, a burning sensation below the breast bone that occurs after eating or at night. When the frequency of acid reflux is much greater than normal, or complications develop as a result of acid reflux, the condition is known as gastroesophageal reflux disease, or GERD.

WHO GETS GERD?

No specific type of person has GERD. It can occur in infants, in the elderly, and at any age in between. GERD is not related to the types of food people eat, does not occur more often among members of a family, and is not related to occupation, income, race, or social status. GERD is thought to affect 10 to 20 million people in the U.S.



There are many theories as to the underlying cause for GERD. Most center around the function of the valve-like tissue which is located at the junction of the esophagus and stomach and is supposed to prevent stomach contents from refluxing into the esophagus. (Click on the illustration to enlarge it.)

WHAT CAUSES GERD?

There are many theories as to the underlying cause for GERD. Most center around the function of the valve-like tissue which is located at the junction of the esophagus and stomach and is supposed to prevent stomach contents from refluxing into the esophagus. People with GERD usually have an abnormal function of this valve. The valve may have a pressure that is lower than normal, it may open at inappropriate times, or it may be displaced into the chest (a condition known as hiatal hernia) resulting in abnormal function. Stomach contents, including stomach acid, bile salts, and pancreatic digestive juices, can cause severe irritation when they come into contact with the lining of the esophagus.

GERD can be aggravated by other factors in addition to a malfunctioning valve. Some factors include obesity, slow stomach emptying, weak muscular contractions in the esophagus, exercise, pregnancy, smoking, certain hormones, many foods, and some medications.

HOW DO I KNOW IF I HAVE GERD?

People who have GERD usually have symptoms that provide a clue that there is a problem. The most common symptom is heartburn, a burning sensation located under the breast bone that occurs after eating or at night. Some patients experience regurgitation of partially digested food into the back of the throat, a process that is distinctly different from forceful vomiting. Irritation of the esophagus can cause poor coordination of the esophageal muscles or scarring of the lining of the esophagus, which is experienced as sticking of food in the chest after it is swallowed. Some symptoms that are less common include sore throat, hoarseness, a sour taste in the back of the throat, and breathing difficulties similar to asthma.
Most people who frequently experience heartburn have sought relief from over-the-counter medications such as antacids or acid-suppression drugs. If these relieve the heartburn, it is likely that the heartburn is due to acid reflux.

WILL HAVING GERD CAUSE ME PROBLEMS?

The vast majority of people with GERD will lead a completely normal life. However, when GERD is severe, complications can develop. Chronic irritation of the esophagus by stomach contents may cause scarring and narrowing of the esophagus, making swallowing difficult. GERD may also irritate the muscles in the esophagus, causing discoordinated activity during swallowing. Severe injury to the esophagus may lead to bleeding or ulcer formation. Patients who experience regurgitation could aspirate stomach contents into their lungs resulting in pneumonia. Chronic irritation of the esophagus may also lead to the growth of abnormal lining cells, a condition known as Barrett's esophagus. GERD has also been shown to be a risk factor for the development of cancer at the site where the esophagus and stomach join.

SHOULD GERD BE TREATED?

Treatment is appropriate if GERD is severe. The aim of treatment is the relief of symptoms such as heartburn. Most drug treatments are not designed to stop reflux but instead focus on reducing stomach acid so that irritation of the esophagus is minimized. The majority of people experience adequate relief with over-the-counter medications such as antacids or acid-suppression drugs.

WHEN IS FURTHER EVALUATION NECESSARY?

If you think you have GERD and do not get adequate relief from antacids or acid-suppression medications, further evaluation by a physician is warranted. This evaluation can be performed by a family physician or by a specialist in gastroenterology.
Additional evaluation, when indicated, usually includes upper gastrointestinal endoscopy. This is performed under sedation in an outpatient setting. A small, flexible telescope is passed through your mouth, down your esophagus and into your stomach, permitting the physician to inspect the lining of the esophagus and stomach and to take small tissue samples (biopsies) if necessary. This permits the physician to determine if there is irritation of the esophageal lining. Some patients undergo an x-ray examination of the esophagus and stomach to look for a hernia. In a few patients two additional tests are performed, including an evaluation of the strength and coordination of the esophageal muscles (manometry) and an assessment of the amount of stomach acid that is refluxed into the esophagus during a 24-hour period (esophageal pH study).

HOW IS GERD TREATED?

There are several components to the treatment of GERD. The first component consists of alterations in lifestyle. Most people benefit substantially from weight loss. Avoiding tight or restrictive clothing is also recommended. Avoiding eating for several hours before going to sleep at night helps to keep the stomach empty, reducing reflux. Some people benefit from elevating the head of the bed 6" to 8" above the foot of the bed, allowing gravity to help prevent reflux episodes. Smoking cessation is important. Refrain from eating spicy and fatty foods, peppermint, caffeine, and chocolate. Seek the advice of your physician for help in eliminating medications that might promote reflux.

The second component of treatment is drug therapy. Most people get adequate relief from antacids or over-the-counter acid suppression medications. If these fail to provide sufficient relief, prescription medications may be necessary to further suppress stomach acid production. Some patients also benefit from drugs that improve emptying of the esophagus and stomach.
The third component of treatment is modification of the valve between the esophagus and stomach. More than 95% of patients with GERD get sufficient relief from lifestyle changes and medical therapy and do not require such interventions.

When additional interventions are necessary, there are a variety of options to choose from. For patients without large hiatal hernias and who have mild to moderate reflux symptoms, there are endoscopic options for therapy. These include stitching the esophagus and stomach to reinforce the valve, applying radiofrequency current to the valve to strengthen it, and injecting a bulking substance into the tissues of the valve to increase the valve pressure. All of these options are new, and the long-term results of such treatments have yet to be determined.
The other option for strengthening the valve is surgical therapy, which is a standard treatment for which long-term results are known and are very good. It is the best additional therapy for patients with severe symptoms and for patients who have a hiatal hernia.

IS SURGERY NECESSARY?

Surgery is indicated for a small group of patients with GERD. The most common indication for surgery is the failure of medical therapy to adequately relieve symptoms of GERD. Some patients are unable to tolerate medical therapy due to side effects from the medications themselves. Other patients experience complications of GERD such as scarring, bleeding, or respiratory symptoms that are sometimes best treated with an operation. There is currently debate over whether young adults with significant GERD symptoms should be considered for surgery even if they obtain adequate relief from medical therapy.

WHAT CAN I EXPECT IF SURGERY IS RECOMMENDED?

Most patients who are recommended to have surgery for GERD will have undergone an endoscopic examination of the esophagus prior to operation. Many will have also had an x-ray examination of the esophagus, a manometric pressure study, or an esophageal pH study, depending on their specific symptoms.

All operations for GERD should be considered major surgery even if the operations are safe and the risks they pose are small. Most operations are performed using a laparoscopic approach under a general anesthetic. Four or five small punctures are made in the abdomen permitting insertion of a telescope for viewing and instruments to do the operation. This can be accomplished in some patients on an outpatient basis or with just one overnight stay in the hospital. If laparoscopy is not feasible, the operation is performed through an open abdominal incision or an incision on the left side of the chest. These larger operations require a hospital stay of at least several days.

The aims of surgery for GERD are to correct any hernia which might exist and to wrap a portion of the stomach around the esophagus, thus creating a new valve mechanism to prevent reflux. If complications of GERD exist, such as scarring or ulcer formation, these are also corrected at the same time. The likelihood of having a successful operation that relieves symptoms of GERD sufficiently so that no medications are necessary is about 95%.