

Cardiothoracic Treatments for Swallowing Problems

People who have been diagnosed with a swallowing problem, may be referred to a cardiothoracic surgeon. Swallowing problems, called dysphagia, are a set of disorders that involve difficulty moving food or liquid from the mouth to the stomach, including:

- Reflux Disease, the backward movement of food and digestive acids and enzymes into the esophagus;
- Hiatal Hernia, the movement of part of the stomach into the chest cavity; and
- Achalasia, a nerve disorder that causes the esophageal contractions to cease and affects the functioning of the lower esophageal sphincter.

A cardiothoracic surgeon treats swallowing disorders with surgical procedures, which can be open surgical procedures or minimally invasive. In open surgical procedures, the patient is placed under general anesthesia and the surgeon makes large incisions. In minimally invasive procedures, called a laparoscopic procedure, the patient is given a local or regional anesthetic, and the surgeon makes small incisions, through which long, thin instruments are threaded, including one with a fiberoptic camera, which the surgeon uses to guide the work.

Reflux disease

Cardiothoracic surgeons treat reflux disease with a surgical procedure called fundoplication. Fundoplication is designed to strengthen the lower esophageal sphincter, the muscular ring that opens and closes to allow food and liquid into the stomach. The surgeon makes several small incisions in the abdomen. (In the open procedures, the surgeon will make one long incision in the middle of the abdomen.) To

increase visibility, the surgeon will also fill the abdominal cavity with gas. Long, thin flexible instruments are then threaded into the incisions. Using these instruments, the surgeon will wrap the fundus, which is a part of the stomach that lies close to the esophagus, around the lower esophagus and esophageal sphincter. The surgeon will then suture the fundus to the lower esophagus and lower esophageal ring. The increased pressure reinforces the lower esophageal sphincter, preventing reflux. The incisions are closed and the patient is taken to a recovery room. Most patients are discharged the following day.

What is reflux disease?

Reflux disease, also called gastro esophageal reflux disease (GERD), is the backward flow of stomach contents up the esophagus, the tube that carries food from the mouth to the stomach. Reflux disease results from a malfunctioning lower esophageal sphincter, a muscular ring at the junction of the esophagus and the stomach, which opens to allow food into the stomach and closes tightly to keep food and digestive acids and enzymes from moving backward into the esophagus.

Hiatal hernia

Surgical repair for hiatal hernia is almost always performed for a type of hiatal hernia called a paraesophageal hernia. The procedure can either be an open surgical repair through a large incision in the chest called a thoracotomy, or through the abdomen, called a laparotomy. Many physicians use a minimally invasive procedure, in which smaller incisions are made, called laparoscopic. Because it often accompanies GERD, a hiatal

hernia is often repaired at the same time as fundoplication. With either form of the surgery, the surgeon moves the part of the stomach and esophagus that have moved through the diaphragm below the diaphragm, and tightens the hiatus with sutures.

What is hiatal hernia?

Hiatal hernia occurs when a small part of the stomach pushes up through the hiatus, the opening in the diaphragm, which is a sheet-like muscle that separates the abdomen from the chest.

Achalasia?

The goal of treatment of achalasia is to allow the lower esophageal sphincter to open more easily. Cardiothoracic surgeons can do this mechanically in a procedure called esophageal dilation. In this procedure, after the patient has been sedated, the physician inserts a long, flexible tube called an endoscope down the patient's esophagus to the lower esophageal ring. Once in place, the physician then inflates a balloon inside the sphincter, forcing it to open more widely. In addition, physicians can inject botulinum toxin (botox) into the sphincter, which paralyzes the muscles of the lower esophageal sphincter, relaxing it. This procedure is relatively new and the long-term results are not known.

Surgical procedures to treat achalasia include esophageal myotomy, a procedure performed while the patient is under general anesthesia. The surgeon can use open surgical techniques or can perform the procedure laparoscopically. For open surgery, the

physician will make one large incision in the abdomen. For the minimally invasive procedure the physician will make several small incisions and use long, thin flexible surgical instruments to partially cut the muscle tissue of the lower esophageal sphincter to weaken it and allow it to open more easily.

What is achalasia?

Achalasia is a nerve-related disorder that interferes with peristalsis, which is the involuntary constriction and relaxation of the muscles of the esophagus. Peristalsis creates the wave-like movements that push the food through the esophagus to the stomach. Achalasia often also interferes with the opening of the lower esophageal sphincter, a muscular ring at the junction of the esophagus and the stomach, which opens to allow food into the stomach and closes tightly to keep in the contents of the stomach. The failure of the lower esophageal sphincter to open easily causes the portion of the esophagus above it to enlarge.