



California Pacific
Medical Center

A Sutter Health Affiliate

Community Based, Not For Profit

Diagnosis and Treatment Options for Gastroesophageal Reflux Disease (GERD)

CENTER FOR COMPLEX DIGESTIVE DISEASE

At California Pacific Medical Center we are committed to bringing new and advanced diagnostic tools, medical treatments and surgical options to the physicians and patients we serve. Through this procedure profile, our physicians illustrate surgical capabilities and techniques that provide you with a window into their practice of diagnosis, treatment and patient follow-up.

For patient referrals:
(888) 637-2762

www.cpmc.org/advanced/gj

Nearly 21 million Americans suffering from GERD use over-the-counter H2 receptor blockers or are prescribed proton pump inhibitors (PPI) to control their symptoms. Although the major symptoms of GERD can usually be managed effectively with medications and lifestyle changes, continuously exposing the esophagus to harsh stomach acid can lead to more serious complications.

While many patients have GERD symptoms, our Center for Complex Digestive Disease Motility Program has the technology and expertise to diagnose a symptom's root cause. Comprehensive testing allows diagnosis of complex problems such as paraesophageal hernias, diffuse esophageal spasm or achalasia, and identifies candidates for endoscopic or laparoscopic repairs of these serious conditions. As a comprehensive foregut motility center, we offer state-of-the-art diagnostic and treatment options.

Medical Interventions

For many people who suffer from GERD or GERD-like symptoms, H2 blockers or PPI medications have been extremely successful in suppressing stomach acid production. Additionally, diagnosing and treating *Helicobacter pylori* (*H. pylori*) bacteria has helped to relieve GERD-like symptoms in many patients. However, the suppression of acid in conjunction with lifestyle modifications and weight loss treats only the symptoms and not the cause, and medications can be an expensive lifetime treatment option. Complications from GERD that go untreated can increase a patient's chances for more serious problems including inflammation, ulcers, strictures, dysphagia, asthma or esophageal cancer. For many medically refractory patients, surgical intervention is the only option available that will bring relief from GERD.

Diagnosing GERD

Diagnosing GERD is the first step in identifying the best treatment option for patients. Historically, diagnosis was made using an

upper GI or 24-hour pH test with a trans-nasal catheter. These tests can be uncomfortable and irritating to the throat and nasal passage; patients tended to avoid testing. The Motility Program offers an innovative diagnostic tool for patients with severe chronic reflux disease



Bravo capsule



Bravo capsule attached to esophagus.

known as the Bravo pH test. With the Bravo pH test, a tiny transmitter, about the size of a vitamin, is endoscopically attached to the wall of the esophagus. The capsule sends pH level data to a pager-sized recording device worn by the patient who is able to continue his/her regular daily routine and consume a normal diet. After 2 or 3 days the transmitter capsule is naturally sloughed off and eliminated

through a normal bowel movement. The patient then returns the recording device to the motility office and we later analyze the data for diagnostic evaluation.

Additional diagnostic tools include endoscopy and esophageal manometry. Using an endoscope, physicians are able to see the inside of the esophagus and stomach to biopsy and diagnose conditions like Barrett's esophagus. Esophageal manometry measures the pressure and contractions of the lower esophageal sphincter (LES) muscle, identifying or ruling out LES muscle weakness as the cause of GERD.

Laparoscopic and Endoscopic Interventions

Laparoscopic and endoscopic treatments for GERD have emerged as alternatives to chronic medication treatment. Since the primary physiological cause of GERD is the physical barrier loss at the gastro-esophageal junction (GEJ), the goal is to "tighten" the LES valve, thereby reducing reflux.

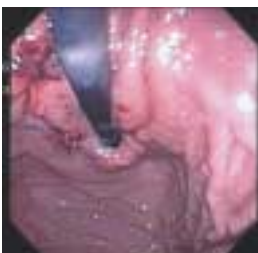
Diagnosis and Treatment Options for Gastroesophageal Reflux Disease (GERD)

Intervention Indications

Candidates for interventional procedures are patients with severe and chronic GERD, GERD accompanied by paraesophageal or hiatal hernias suffering from uncontrollable symptoms, or patients failing to respond to H2 blocker and PPI medication therapy.

Endoscopic Interventions

GASTROPLICATION



Pleating of GEJ sphincter using EndoCinch.

Gastroplication or endoscopic sewing attempts to restore functionality of the anti-reflux mechanism surrounding the esophagogastric (cardia) by

using an esophageal sewing technique. The endoscopist places a series of stitches in the folds of the cardia to create a pleat in the mucosa at the GEJ. The endoscopic sewing machine, a product distributed by Bard Technologies called EndoCinch, received FDA approval in early 2000. We are currently investigating additional endoscopic techniques for GERD through our research clinical trials and will have these available for use in the near future.

ESOPHAGEAL IMPLANT



Biopolymer in EG junction.

An alternative endoscopic procedure, Enteryx, a Boston Scientific product, uses a liquid polymeric material that is injected into the muscle of

the LES. Enteryx forms a soft, spongy permanent implant in the sphincter muscle and is intended to reduce the symptoms of GERD by helping the LES

keep stomach fluids and acids from backing up into the esophagus. It does not affect the stomach's ability to produce acid or other digestive fluids. This procedure is not recommended for patients with esophageal varices.

What can patients expect? The procedure does not require an incision, therefore, is usually done in the outpatient GI lab. Most patients return home the same day as treatment and resume normal daily activities one day following the procedure. Patients usually experience a sore throat and may experience some nausea for the first few days postoperatively. Most pain can be controlled with over the counter analgesics such as Motrin or Tylenol.

Laparoscopic Intervention

Laparoscopic Fundoplication constructs



Stomach wrapped around fundus stitched in place.

a new esophageal valve by wrapping the upper portion of the stomach (fundus) around the lower end of the esophagus. The wrap is

sutured into place and supports the sphincter muscle controlling this valve so that stomach acid is not allowed to push its way up into the esophagus.

Many patients with GERD also have a paraesophageal or hiatal hernia caused by an opening in the diaphragm allowing the stomach to bulge into the chest cavity. These conditions can cause increased heartburn and difficulty swallowing. The hiatal hernia is believed to be caused by a variety of factors including obesity, trauma, stress, and heavy lifting.

The procedure lasts approximately 90 minutes to 2 hours and reduces the hospital stay to 1 or 2 days, with a 1 to 2 week recovery period.

What are the risks of the operation?

The risks unique to laparoscopic fundoplication for GERD include bleeding, infection, and conversion to an open operation. These complications occur in less than 1% of patients treated laparoscopically. More serious, yet extremely obscure, complications include gastric or esophageal perforations, vagal nerve injury, tissue ulceration or ischemia, or splenopancreatic injury. The long-term recurrence rate is 10–15%.

What can patients expect? Most patients feel well enough to go home within 1 or 2 days and return to their normal activities within 2 weeks. Generally, patients can walk a few hours after surgery. A soft diet is started the day after surgery and patients usually advance to a regular diet within 6 weeks after surgery. Pain is controlled with oral narcotic medications.

Patient Referral and Insurance Coverage

Patients will need a referral from their primary care provider or physician specialist prior to scheduling their diagnostic options, or interventional endoscopic or laparoscopic surgical evaluation.

Treatment for GERD is a surgical option covered by Medicare, Medi-Cal and most private insurance companies. In order to avoid unexpected medical expenses, it is always best for your patients to contact their insurance company prior to treatment to confirm coverage for this service and obtain prior authorization.

For more information

Please contact our specialty referral coordinators at 1 (888) 637-2762.

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