

Gastroesophageal Reflux Disease

Gastroesophageal reflux is a backward flow or reflux of stomach contents into the esophagus. Everybody has some reflux. Abnormal amounts of gastroesophageal reflux can cause gastroesophageal reflux disease (GERD). This occurs when the sphincter of smooth muscle between the esophagus and the stomach does not function properly. This muscle band is called the lower esophageal sphincter (LES).

What causes GERD?

Each time you eat, stomach acids are released. Normally the lower esophageal sphincter acts as a guard to prevent stomach acids from backing up into the esophagus. An increase of the pressure in the stomach and/or relaxation of the muscle tone of the valve may cause reflux to occur. Factors that cause an increase in pressure are:

- Full stomach
- Obesity
- Lying down
- Bending forward
- Pregnancy
- Tight clothing.

Factors that loosen the muscle tone of the valve can be caused by:

- Pregnancy
- Nicotine
- Alcohol, coffee, tea,
- Chocolate
- Mint
- Fatty foods.

What are signs and symptoms of GERD?

Signs and symptoms of GERD include:

- Heartburn
- Sour taste in the mouth
- Pain occurring in the middle of the chest or stomach
- Chronic cough
- Choking sensation
- Increased trouble breathing while asleep



- Swallowing problems
- Sore throat
- Recurrent pneumonia
- Chronic sinusitis.

How is GERD diagnosed?

A physician diagnoses gastroesophageal reflux from a history of signs and symptoms. He or she may order tests such as a barium swallow, esophageal pH impedance study or endoscopy (EGD) to help diagnose this condition.

What is the treatment for GERD?

The following treatments may be recommended to help prevent acid reflux:

Lifestyle changes:

- **If you are overweight, talk with your health care provider about losing weight.**
- **If you smoke, giving up smoking is important.** Your healthcare provider will have ideas to help you quit.
- **Relax.** While stress hasn't been linked directly to heartburn, it is known that it can lead to behaviors that can trigger heartburn.

Dietary measures:

- **Limit certain food** including: citrus and tomato products (if they cause pain), strong spices, caffeinated and decaffeinated coffee and tea, carbonated drinks, fatty foods, chocolate, peppermint, spearmint and alcohol.
- **Eat smaller, more frequent meals rather than three large ones.** A full stomach can put extra pressure on the lower esophageal sphincter (LES), which will increase the chance that some of this food will reflux into the esophagus.
- **Avoid food or liquids for 2-3 hours before bedtime.** Lying down with a full stomach can cause stomach contents to press harder against the LES, increasing the chances of refluxed food.

Physical measures:

- **Elevate the head of the bed 5-6 inches.** Lying flat presses the stomach's contents against the LES. With the head higher than the stomach, gravity helps reduce this pressure. You can elevate your head in a couple of ways. You can place bricks, blocks or anything that's sturdy securely under the legs at the head of your bed. You can also use a wedge-shaped pillow to elevate your head.
- **Avoid bending forward at the waist.** This will squeeze the stomach, forcing food up against the LES.
- **Avoid wearing tight-fitting clothing.** Clothing that fits tightly around the abdomen will squeeze the stomach, forcing food up against the LES, causing food to reflux into the esophagus. Clothing that can cause problems includes tightfitting belts and slenderizing undergarments.

Medications

Medications that may be prescribed to help this condition include:

Proton Pump Inhibitors (PPIs)

Acid suppressing medicines that are used most commonly for people with symptomatic GERD

- Prilosec® (omeprazole)
- Nexium® (esomeprazole)
- Prevacid® (lansoprazole)
- Protonix® (pantoprazole)

- Aciphex® (rabeprazole)
- Dexilant® (lansoprazole)

H2 Antagonists

Acid suppressing medicines that are used to treat mild GERD

- Tagamet® (cimetadine)
- Zantac® (ranitidine)
- Pepcid® (famotidine)
- Axid® (nizatidine)

Promotility Agents

Medicines that move the food through the stomach more quickly

- Reglan® (metoclopramide)
- Gablofen®, Liorensal® (baclofen)
- Urencholine® (bethanechol)

Occasionally surgery may be recommended to help eliminate gastroesophageal disease.

Visit our website for more information about support groups, clinical trials and lifestyle information.

PTE.055 © Copyright June 1994 Revised 2000, 2003, 2008, 2010, 2016

NOTE: This information is provided to you as an educational service of National Jewish Health. It is not meant to be a substitute for consulting with your own physician.

National Jewish Health is the leading respiratory hospital in the nation. Founded 119 years ago as a nonprofit hospital, National Jewish Health today is the only facility in the world dedicated exclusively to groundbreaking medical research and treatment of patients with respiratory, cardiac, immune and related disorders. Patients and families come to National Jewish Health from around the world to receive cutting-edge, comprehensive, coordinated care. To learn more, visit njhealth.org.