



## Stanford Voice & Swallowing Center Gastroesophageal Reflux Disease (GERD), Laryngopharyngeal Reflux (LPR) and Chronic Laryngitis

***Definition:*** The stomach is the reservoir for food and liquid that is consumed during the day. It serves as a holding area for the food while digestion begins and while room is being made in the intestines downstream. The average person consumes about four liters of food and liquid per day. In addition to this amount, the stomach will produce two to five liters of fluid, which contains very strong acid and powerful digestive enzymes. Normally the esophagus (food tube) acts as a one-way path for food and liquid. Occasionally, this one-way path becomes a two-way path allowing the acid and enzymes to percolate back up the esophagus and even into the mouth. Acid and enzymes regurgitating into the esophagus is called **gastroesophageal reflux disease (GERD)**. When this acid rises high enough to reach the inside of the throat, this is called **laryngopharyngeal reflux (LPR)**.

***The Problem:*** In LPR, the delicate tissues of the throat and voice box are bathed in acid. If this happens only occasionally, as it does in many people, the voice box simply recovers and a person may not experience any lasting symptoms. If this happens frequently or in the setting of another condition or behavior that causes throat inflammation, a person may develop **chronic laryngitis**:

- Hoarseness or voice changes
- Pain with talking
- Throat clearing
- Sensation of lump or mucous in throat
- Food getting stuck in throat
- Difficulty or painful swallowing
- Cough
- Spasm of the vocal cords and difficulty breathing

**If acid is getting into the throat and it is not controlled, these symptoms can last months or years.**

***But I don't have GERD!***

Patients with GERD often experience heartburn. This may be due to the large amount of acid coming in to the esophagus, which can lead to inflammation of the lining of the esophagus and pain in the chest region. The esophagus can handle much more acid than the tissues of the throat, so that a little acid in the esophagus may not cause problems, but the same amount of acid reaching the throat may cause the problems listed above. 50% of patients with LPR never experience heartburn and have no symptoms of GERD. When patients show signs of LPR but have no symptoms of heartburn, we often say that the reflux is ***silent***. Sometimes, patients will have both GERD and LPR together.

## Causes

Those things that increase the amount of acid and fluid produced by your stomach, that increase the ability of the acid to regurgitate up the esophagus and into the throat, and that contribute to inflammation of the throat and vocal tissues are all potential causes LPR and chronic laryngitis:

- Eating prior to retiring to bed
- Fatty diet, caffeine, tea, mint
- Licorice and chocolate
- Obesity, pregnancy, tight clothing
- Stressful lifestyle
- Alcohol and tobacco
- Voice overuse/shouting
- Throat clearing
- Lifting weights/straining
- Coughing
- Talking after voice gets hoarse or throat gets sore
- Colds/flu
- Irritation from medical procedures such as intubation or endoscopy

## Treatment

Because GERD and LPR are both due to acid reflux, they are treated similarly with dietary and behavioral changes as well as medication. In order to allow the inflammation of the throat and vocal tissues to subside, several important maneuvers must be performed as well.

- Elevate the head of bed 4-6 inches with a brick or a phone book under the legs of the head of the bed. An extra pillow alone will not help.
- No eating or drinking 2 hours prior to bedtime
- Eliminate caffeine, mint, chocolate
- Limit sodas, especially at night
- Lose weight
- Reduce your stress
- Take your acid medication daily – it will help protect your throat while it is healing.
- Drink plenty of water
- Do not clear your throat- If you feel the need to clear it, take a drink of water instead
- Get your cough under control - take Robitussin DM around the clock
- Rest your voice – delegate speaking chores to others while recovering
- If your voice gets hoarse, stop talking. It is being overused
- If it hurts to talk, stop! Do not talk through the pain
- Get into the habit of carrying a water bottle with you

## How long will it take until I get better?

Improvement and relief take time! It may take up to six weeks before the first signs of relief are seen. In about 50% of patients, improvement may take up to six months. Your doctor may change your medication depending on your symptoms and your examination, and your symptoms may wax and wane. But nearly all people do get better in time, so it is important to stay the course.