

GASTROESOPHAGEAL REFLUX (GERD); LARYNGOPHARYNGEAL REFLUX (LPR)

In order to understand the conditions of GERD and LPR, we must first look at some of the architecture of the body. Between the abdomen and the chest there is a domed layer of muscle and tendons known as the *diaphragm*. This might be thought of as both the ceiling of the abdominal cavity and the floor of the chest. The esophagus, the passage between the throat and the stomach, is in the chest above the diaphragm. The stomach lies below the diaphragm. There is a teardrop shaped opening, called a "hiatus", in the diaphragm where the esophagus and the stomach join. At this junction there is a marvelously complex system that keeps stomach acid out of the esophagus within the stomach where it belongs.

"GERD" is the general term for the symptom complex that occurs when acid escapes the protective mechanisms of the stomach and ascends into the esophagus. "LPR" is a more specific term describing the symptoms that occur as the acid affects the *larynx* or "voice box" and the *pharynx* or throat. LPR symptoms include hoarseness, dry cough, problems swallowing, and foreign-body sensation ("lump in the throat"). Whereas GERD can be treated by a primary care physician or gastroenterologist, LPR is often best-handled by an otolaryngologist (ENT).

To relieve the symptoms of LPR, we will often prescribe medicine that decreases the acid production. Many of these medications **must** be taken first thing in the morning on an **empty** stomach, or they are fairly ineffective due to decreased absorption into the bloodstream. Raising the pH of the stomach contents that might be refluxing into the esophagus (making it *more* neutral and *less* acidic) results in reducing the inflammation of the esophagus, larynx, and pharynx. It is not an overnight treatment, often taking weeks or months for complete resolution of symptoms. Be patient and consistently take your medicine as prescribed.

Lifestyle Modifications

- Elevate the head of the bed 6-8 inches with two bricks under the headboard on each side, OR purchase a foam wedge to put above or below the sheet. Your pharmacy or Bed Bath and Beyond will have these. (Extra pillows only elevate the head, and are not as effective.)
- Avoid eating or drinking anything for 3 hours prior to bedtime. (If you are a diabetic and your blood sugar drops, don't hesitate to take something by mouth to restore your blood sugar.)
- Avoid caffeine, alcohol, tobacco, chocolate, mints, tomato-based foods (Mexican, Italian, BBQ)
- Avoid throat clearing, at all costs.
- Take the prescribed medication in the morning upon awakening.
- Zantac 150mg (ranitidine) at night.

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