

# What is Laryngopharyngeal Reflux?

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Laryngopharyngeal reflux or LPR is very similar to gastroesophageal reflux disease (GERD) or heartburn in that stomach acid comes back up the esophagus into the throat. However, people with LPR usually do not get the typical burning in the chest associated with GERD. The amount of acid that comes back up is often such a small amount that it doesn't burn in the esophagus but causes irritation in the throat - similar to the sensation of lemonade stuck at the top of the throat. LPR is often called silent reflux because it usually does not cause heartburn.

## Symptoms of Laryngopharyngeal Reflux:

In children and infants may include:

- hoarseness
- cough
- reactive airway disease (asthma)
- noisy breathing or pauses in breathing while sleeping
- trouble feeding, spitting up, or inhaling food
- trouble gaining weight

In adults:

- typical GERD symptoms such as heartburn, burning sensation in back of throat, bitter taste in mouth in the morning
- excessive throat clearing
- cough
- hoarseness
- lump sensation in the throat persistent even when not eating
- sensation of postnasal drip or excess throat mucus
- sore throat
- trouble swallowing or breathing
- choking or gagging at night or after coughing

The symptoms are often worse at night (rather than after meals as with GERD). A person with LPR often finds themselves coughing and/or gagging at night. When you are lying down, the acid finds its way up into the throat more easily than during the day when you are upright and have gravity to help keep the acid down in your stomach. Sometimes, you may have already found that sleeping up on a couple of pillows at night helps you sleep.

## **What causes LPR? Why would I have it if I have never had heartburn?**

LPR can be a lifelong condition or temporary. If someone has GERD, they are prone to having LPR. The same foods and conditions that cause GERD also exacerbate LPR. Certain foods, tobacco use and especially stress can cause a flare up of GERD/LPR.

Foods that worsen GERD/Reflux

- caffeine
- carbonated drinks
- chocolate
- peppermint
- tomato and citrus foods
- fried and fatty foods
- spicy foods

Often, LPR will occur after an illness or stressful event in a person's life. The illness is often something that causes a lot of coughing such as bronchitis or pneumonia. The person coughs so much and so forcefully that they force acid up from the stomach with each cough. Some patients report actually throwing up when they cough - and that is stomach acid coming back out of the mouth (still reflux!). The throat is now exposed to the acid and becomes irritated. Now, every bit of saliva or mucus dripping from the nose triggers a cough and now the cough is lingering even though the pneumonia or bronchitis is long gone. A stressful event often loosens the lower esophageal sphincter/LES (the "valve" separating the esophagus and stomach), allowing acid to reflux up the esophagus and cause symptoms.

### **Damage from Laryngopharyngeal Reflux**

Persistent stomach acid in the throat can cause long term irritation and damage:

- subglottic stenosis - narrowing of the airway below the vocal cords
- ulcer in the larynx/voice box
- lung irritation/damage
- vocal cord changes/Reinke's edema

### **Diagnosing Laryngopharyngeal Reflux**

Your doctor will perform a detailed history and physical exam including questions about your diet, stress, and any recent illnesses. Your Ear, Nose and Throat doctor will perform an examination of your voice box with a mirror and/or endoscopy (an office procedure using a small scope through the nose or mouth to visualize the voice box). Sometimes 24 hour pH monitoring is needed to detect acid in the esophagus and throat. A barium swallow exam (an xray that is obtained while a patient is swallowing a radiopaque fluid) can also visualize reflux.

## **Treating Laryngopharyngeal Reflux**

Treatment of LPR often involves lifestyle and diet modifications similar to that of GERD. Treatment of any residual illness (bronchitis, sinusitis, allergy, asthma, etc) should be done. If a person has persistent symptoms of postnasal drip, often treatment with allergy medications (such as antihistamines, nasal steroids and/ or nasal antihistamines) can decrease nasal mucus and allow the throat a chance to rest. If a person does not usually have allergies, these treatments can often be discontinued once the LPR is resolved. Often, medications to treat GERD are started. These medications either neutralize the stomach acid (antacids), reduce the acids (H2 blockers) or block the acid producing cells in the stomach (proton pump inhibitors/PPIs). If you are taking a PPI for LPR, it is important to try to take it before you eat to get the maximal benefit from the medication (often just the thought of food will get the stomach acid going!). If your symptoms are worse at night, you may find that the PPI is more beneficial in the evening rather than in the morning (which is more helpful for GERD symptoms). Even with medications, the symptoms of LPR can take a few months or even longer to go away. The irritation and/or damage to the throat needs time to heal and recover. Management of stress is also key to recovery.

### **Tips for Reducing Reflux and LPR**

- If you use tobacco, QUIT. Smoking may make you reflux.
- Don't wear clothing that is too tight, especially around the waist (trousers, corsets, belts)
- Do not lie down just after eating...in fact, do not eat within three hours of bedtime.
- Sleep with your head elevated 4 to 6 inches
- Avoid caffeine (especially coffee and tea), soda pop (especially cola) and mints.
- Do not drink alcohols
- Lose weight
- Wear loose clothing
- Eat small meals and slowly

If these treatments are not enough, you might need an esophageal endoscopy and/or consideration of surgery called fundoplication (a procedure where the stomach is wrapped around the lower esophagus to tighten the LES) to control reflux.