

## **Laryngopharyngeal Reflux (LPR)**

### **Symptoms of LPR:**

- Hoarseness
- Difficulty swallowing
- Excessive mucous in the throat
- Chronic cough
- Chronic throat clearing
- Sensation of a lump in the throat

### **What is gastroesophageal reflux disease (GERD)**

GERD results when acid gets past the one way valve at the bottom of the esophagus and escapes from the stomach. The lining of the stomach is very good at resisting injury from acid, but the rest of your body is not. Small amounts of acid in the esophagus or throat can cause injury to the lining of these structures and cause symptoms of heartburn or those listed above.

Laryngopharyngeal reflux refers to acid coming all the way up into the throat and causing symptoms due to injury of the voice box (larynx) or throat (pharynx).

### **How does LPR differ from heartburn?**

LPR is not the same as heartburn. In fact, less than 30 percent of people with LPR have heartburn symptoms. Most people with heartburn do not develop the symptoms listed above. Nobody is quite sure why some patients develop heartburn and others develop LPR symptoms. Part of the answer is probably due to the differences in the ability to resist acid in the voice box and esophagus. People who have weak defenses in the esophagus probably get heartburn, while those who are susceptible to acid injury in the larynx get the symptoms listed above. Many patients develop symptoms following minor trauma to the larynx (voice box) from a cold, excessive coughing, and intubation for anesthesia or even due to eating something sharp like a fish bone. The injury decreases the ability of the larynx to resist acid exposure and may make the larynx hyper-sensitive.

### **What effect can acid reflux have on the voice?**

Acid reflux can cause laryngitis symptoms such as hoarseness, voice strain and fatigue; and limitations in the ability to change pitch and loudness. It may also cause non-voice symptoms such as the sensation of a lump in the throat, pain or tightness in the throat, frequent coughing or throat clearing, and a bad or sour taste in the mouth.

## **Treatment of LPR**

There are two major ways to treat LPR, with medications and through behavioral and lifestyle changes. Both of these routes of treatment are very important. In rare cases, surgery may be recommended to help prevent acid reflux.

## **Medical treatment of LPR**

Most patients with LPR will be given medications called proton pump inhibitors (PPI). These medications are extremely effective at preventing the production of acid by the stomach.

Common side effects of these medications include headache and stomach upset or diarrhea. If you develop side effects, switching to a different proton pump inhibitor may allow acid control without side effects. There are currently numerous PPIs on the market.

Other medications are occasionally used to treat LPR. Ranitidine (Zantac) is occasionally used instead of PPIs or in conjunction with PPIs.

## **Behavioral treatment to reduce LPR**

There are lifestyle changes that you can make that may significantly improve your symptoms:

- Do not eat for 2-3 hours before going to bed at night
- Do not exercise right after eating
- Elevate the head of your bed 4-6 inches with blocks or bricks, or use a wedge shaped pillow. Do not prop yourself up with regular pillows which could increase reflux
- Stop smoking
- Manage your weight control
- Eat a lower fat diet
- Avoid spicy foods, citrus, chocolate, caffeine
- Avoid alcohol, especially in the evening
- Avoid peppermint
- Avoid throat clearing and manage chronic cough
- If you snore, talk to your doctor about the possibility of sleep apnea which can increase reflux



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