

Laryngopharyngeal Reflux (LPR): Information Sheet

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 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?

Laryngopharyngeal reflux is not the same as heartburn. In fact, less than 30 percent of people with LPR have heartburn. 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, but part of the answer is probably due to 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 from a cold, excessive coughing, intubation for anesthesia or even due to eating something sharp like a fish bone. This injury decreases the ability of the larynx to resist acid exposure.

Treatment of LPR

There are two major ways to treat LPR, medications and changes to your behavior. Both of these 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 inhibitor (PPIs). These medications are extremely effective at preventing the production of acid by the stomach. Common side effects of these medications include headaches and stomach upset or diarrhea. If you develop side effects, switching to another proton pump inhibitor may allow acid control without side effects.

There are five proton pump inhibitors currently available:

- Aciphex (rabeprazole)
- Nexium (esomeprazole)
- Prevacid (lansoprazole)
- Prilosec (omeprazole)
- Protonix (pantoprazole)

Currently, only omeprazole is available as a generic. PPIs are quite expensive, and your insurance company may ask you to use a specific medication. Because Protonix is currently the cheapest of these medications, most insurance companies want their patients on Protonix. If your insurance company requests that you use a different medication than what was prescribed, please call the office and we will provide a new prescription. Some insurance companies require pre-authorization for these medications, so we kindly ask that you send any necessary paperwork to the office so we can fill it out the necessary forms.

Other medications are occasionally used to treat LPR. Ranitidine (Zantac) is occasionally used instead of PPIs or in conjunction with PPIs. In addition, bicarbonate gum is available over-the-counter and is a useful adjunct to medical therapy with PPIs. Chewing two to three pieces after each meal, or as needed, can help decrease the incidence and severity of gastric reflux.

Behavioral Changes to Decrease LPR

There are two simple lifestyle changes that you can make that may significantly improve your symptoms.

1. ***Do not eat for two to three hours before going to bed at night.*** This minimizes the amount of acid that is present in your stomach when you lay down flat. Any acid remaining in your stomach when you lay down can easily flow into your esophagus and throat, and gravity no longer pulls it back down into your stomach.
2. ***Elevate the head of your bed by four to six inches.*** You can do this with bricks, boards, or coffee cans partly filled with gravel. Alternatively, you can place a foam wedge on top of the mattress. Extra pillows are not sufficient. Elevating your throat above your stomach helps reduce acid exposure by using gravity to pull refluxed acid back down into the stomach.

There are several other lifestyle changes you may also find helpful:

1. If you smoke tobacco, stop! In addition to all the other health effects of tobacco use, smoking worsens reflux and makes your larynx more susceptible to damage.
2. Change to a low-fat diet, and avoid the following foods:
 - a. Fried foods
 - b. Cheese
 - c. Eggs
 - d. Chocolate
3. Limit the amount of butter and red meat you consume
4. Avoid caffeine (e.g., coffee, tea, soda)
5. Avoid alcohol, especially in the evening
6. Avoid peppermint