# LARYNGOPHARYNGEAL REFLUX

During gastroesophageal reflux (GER), the contents of the stomach and upper digestive tract may flow back (reflux) all the way up the esophagus, beyond the upper esophageal sphincter (a ring of muscle at the top of the esophagus), and into the back of the throat and possibly the back of the nasal airway. This is known as laryngopharyngeal reflux (LPR), which can affect anyone.



### WHAT ARE THE SYMPTOMS OF LPR?

In adults the symptoms of LPR include a bitter taste, a sensation of burning, or something "stuck" in the back of the throat. Some patients have hoarseness, difficulty swallowing, a need for throat clearing, and the sensation of drainage from the back of the nose ("postnasal drip"). Some may have difficulty breathing if the voice box is affected. Many patients with LPR do not experience the symptom of heartburn associated with gastroesophageal reflux disease (GERD).

In infants and children, LPR may cause breathing problems such as cough, hoarseness, stridor (noisy breathing), asthma, sleep-disordered breathing, feeding difficulty (spitting up), turning blue (cyanosis), aspiration, pauses in breathing (apnea), apparent life-threatening event (ALTE), and even a severe deficiency in growth. Proper treatment of LPR, especially in children, is critical.

While GERD and LPR may occur together, patients can also have GERD alone (without LPR) or LPR alone (without GERD). If you experience any symptoms on a regular basis (twice a week or more), then you may have GERD or LPR. For proper diagnosis and treatment, you should be evaluated by your primary care doctor or an otolaryngologist-head and neck surgeon (ENT doctor).

## WHO GETS LPR?

Women, men, infants, and children can all have LPR. These disorders may result from physical causes or lifestyle factors. Physical causes can include a malfunctioning or abnormal lower esophageal sphincter muscle (LES), hiatal hernia, abnormal esophageal contractions, and slow emptying of the stomach. Lifestyle factors include diet (chocolate, citrus, fatty foods, spices), destructive habits (overeating, alcohol and tobacco abuse) and even pregnancy. Young children experience GERD and LPR due to the developmental immaturity of both the upper and lower esophageal sphincters. It should also be noted that some patients are just more susceptible to injury from reflux than others. A given amount of refluxed material in one patient may cause very different symptoms in other patients. Unfortunately, LPR and GERD are often overlooked in infants and children, leading to repeated vomiting, coughing in GERD, and airway and respiratory problems in LPR, such as sore throat and ear infections. Most infants grow out of GERD or LPR by the end of their first year, but the problems that resulted from the GERD or LPR may persist.

# WHAT ROLE DOES AN EAR, NOSE, AND THROAT SPECIALIST HAVE IN TREATING LPR?

Laryngopharyngeal reflux is primarily treated by an otolaryngologist or ear, nose, and throat specialist. Symptoms related to LPR, including throat discomfort, laryngitis, hoarse voice, and airway or swallowing problems, are all conditions commonly treated by otolaryngologists. These problems require an otolaryngologist-head and neck surgeon, or a specialist who has extensive experience with the tools that diagnose GERD and LPR. They treat many of the complications of GERD and LPR, including: sinus and ear infections, throat and laryngeal inflammation and lesions, as well as a change in the esophageal lining called Barrett's esophagus, a serious complication that can lead to cancer. Your primary care physician or pediatrician will often refer a case of LPR to an otolaryngologist-head and neck surgeon for evaluation, diagnosis, and treatment.

#### **HOW IS LPR DIAGNOSED AND TREATED?**

LPR (and GERD) can be diagnosed or evaluated by a physical examination and the patient's response to a trial of treatment with medication. Other tests that may be needed include an endoscopic examination (a long tube with a camera inserted into the nose, throat, windpipe, or esophagus), biopsy, x-ray, examination of the esophagus, 24-hour pH probe with or without impedance testing, esophageal motility testing (manometry), and emptying studies of the stomach. Endoscopic examination, biopsy, and x-ray may be performed as an outpatient or in a hospital setting. Endoscopic examinations can often be performed in your ENT's office, or may

require some form of sedation and occasionally an esthesia.

Most people with LPR respond favorably to a combination of lifestyle changes and medication. Medications that could be prescribed include antacids, histamine antagonists, proton pump inhibitors, pro-motility drugs, and foam barrier medications. Some of these products are now available over the counter and do not require a prescription. Children and adults who fail medical treatment or have anatomical abnormalities may require surgical intervention. Such treatment includes fundoplication, a procedure where a part of the stomach is wrapped around the lower esophagus to tighten the muscle (sphincter), and endoscopy, where hand stitches or a laser are used to make the lower esophageal sphincter tighter.

## LIFESTYLE CHANGES TO PREVENT LPR

- Avoid eating and drinking within two to three hours before bedtime
- Do not drink alcohol
- Eat small meals and eat slowly
- Limit problem foods: caffeine, carbonated drinks, chocolate, peppermint, tomato, citrus fruits, and fatty and fried foods
- Lose weight
- Quit smoking
- Wear loose clothing