# Another Complication of Reflux: Laryngeal Pharyngeal Reflux (LPR)

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**At A Glance**

- Reflux of gastric acid can cause several throat problems
- Symptoms and treatment of LPR are often different from typical GERD symptoms
- LPR will usually heal well with proper diagnosis and treatment

Many patients with throat discomfort are surprised when they are told that they have laryngeal pharyngeal reflux (LPR). Gastric acid can cause significant inflammation when it falls on the vocal cords. If this happens repeatedly, a person can be left with a number of bothersome throat problems, such as hoarseness, frequent throat clearing, coughing, or the sensation that there is something stuck in their throat. Certainly, there are individuals with gastroesophageal reflux disease (GERD) who have throat discomfort. People with GERD have gastric acid reflux back-up into the esophagus. This typically causes heartburn and regurgitation (a sense of fluid coming up). Many patients with LPR do not have any of the typical GERD symptoms. This has lead to some controversies and misunderstandings about LPR.

First of all, is LPR a symptom of GERD? Are patients with LPR a special subset of GERD? Is LPR a completely different medical problem? There is not a good answer to these questions, as there is some truth to each of them. However, as a physician, it is easier to manage LPR if one approaches it as a completely different problem. Patients with GERD nearly always have heartburn; they usually improve quickly with appropriate medical treatment; they frequently require life-long medical treatment; and they are at risk for developing significant damage to the lining of the esophagus, including esophagitis or Barrett's esophagus. On the other hand, LPR is quite different. Many patients do *not* have heartburn; they require larger doses of medications for weeks to months before seeing any improvement; they usually do *not* require long-term treatment; and they rarely develop complications.

**Causes**

LPR frequently begins after an upper respiratory illness. However, some of the symptoms seem to linger after the cold or flu is better. The theory is that there is some reflux of stomach acid into the throat, which irritates the already irritated vocal cords. If the acid reflux continues, the damage to the vocal cords will progress. The amount of acid reflux required to cause this is very small, which explains why most of these patients do not have heartburn. The injury may be more profound in people who use their voice vigorously, such as singers or teachers.

**Symptoms**

Individuals with persistent throat symptoms, such as hoarseness, frequent throat clearing, or coughing should seek medical attention. The feeling that there is something stuck in the throat, a globus sensation, is a classic symptom of LPR. Throat pain, weight loss, or smoking history should be considered worrisome symptoms. Throat pain is an uncommon manifestation of LPR. Most patients eventually have a laryngoscopy by an ear, nose and throat (ENT) doctor. With this test, the ENT physician can visualize the vocal cords and look for the characteristic findings of LPR, such as swelling. Unfortunately, many patients with normal examinations or a little redness are told *incorrectly* that they have LPR.

**Treatment**

Once the diagnosis is suspected, two things will help. First, the reflux needs to be well controlled. This usually requires a twice a day dose of a proton pump inhibitor. These are powerful medications to suppress stomach acid and relieve acid reflux. It often requires treatment for 2–6 months before significant improvement is seen. Secondly, attempts to improve vocal hygiene should be undertaken. The patient should drink plenty of liquids to prevent a dry throat. Caffeine, alcohol,

antihistamines, and menthol containing cough drops all have a drying effect and should be avoided. Obviously, patients should avoid tobacco. They should be careful to not to overuse the voice by shouting, whispering, speaking for a long period of time, or clearing the throat.

Throat clearing is a common symptom. However, it tends to aggravate the injury. We suggest three things that may help stop the throat clearing behavior: 1) try swallowing to clear the throat; 2) exhale forcefully rather than cough; and 3) gently tap the vocal cords together rather than a forceful effort to clear the throat.

Patients who improve should talk to their doctor to try to stop their anti-reflux medications. The majority of individuals with LPR do *not* require life-long medical treatment for their reflux. Those who do not improve should see their doctor and consider a repeat laryngoscopic examination to re-evaluate the diagnosis. The doctor may also consider doing a test to precisely measure acid reflux, such as ambulatory pH monitoring. In this test, a thin catheter is passed through the nose and into the esophagus. The pH can be measured every few seconds for 24 hours. Rarely, patients with LPR have severe enough symptoms that they require anti-reflux surgery.

Individuals with LPR usually do well with proper diagnosis and treatment, but it may take several months for this to happen. The keys to success are an accurate diagnosis, good control of acid reflux, and good vocal hygiene during the healing process.

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