Laryngopharyngeal Reflux (LPR), also called SILENT Reflux, occurs when there is a backflow of acid from your stomach up to the level of the voice box (larynx) and throat (pharynx). LPR can occur during the day or night, even if a person has not eaten anything.

Symptoms of Silent Reflux (LPR)
- Hoarseness
- Too Much Mucus in the Throat/Phlegm Sensation
- Lump Sensation in the Throat
- Frequent Throat Clearing
- Chronic Cough
- Difficulty Swallowing
- Pitch Breaks When Talking
- Possibly Heartburn

Many people with LPR do NOT experience heartburn. This is because the material that is refluxed does not stay in the esophagus very long, meaning, it does not have enough time to irritate the esophagus and cause heartburn. This is why LPR is called “Silent Reflux.” Other symptoms, such as a lump in the throat, hoarseness, throat clearing/coughing, difficulty swallowing, can occur when only small amounts of refluxed material come all the way up to the level of the throat and voice box. This is because the voice box and throat are more sensitive to injury and irritation from stomach acid compared to the esophagus.
over night. This is performed as an outpatient within the physician’s office. A transponder is worn around the waist for the duration of the study to record the data. The patient is requested to maintain an activity log for that period of time, including items consumed at meals. The tube is removed the following day. This test can assist with determining the best treatment for a patient, including dietary modifications, timing and dosage of medication. It has also been useful to monitor patients with already known reflux.

Esophagoscopy
This is performed by a Gastroenterologist and involves direct visualization of the esophagus and upper portion of the stomach with a flexible telescope. This test is generally performed at an outpatient surgical center or hospital setting. Patients with LPR might be referred for this based on findings from other testing.

LPR Management
LPR is generally treated with a combination of the following:

**Dietary Modifications**
Dietary modifications are extremely important in managing reflux and can sometimes be effective without other intervention. Avoid or minimize reflux triggers within the diet:
- Alcohol
- Fried/Fatty Foods
- Spicy Foods
- Tomato-Based Foods
- Citrus
- Caffeinated Beverages
- Carbonated Beverages
- Chocolate
- Peppermint/Spearmint

**Medications**

**Proton pump inhibitors (PPIs)**
Group of medications that target the acid production at the cellular level. The medications typically are timed-released and work for approximately 24 hours. They help to reduce inflammation by suppressing acid production. Examples include: Prilosec (Omeprazole), Aciphex, Prevacid, Protonix, and Dexilant.

**H2 Blockers**
Group of medications that block the histamine receptors in acid producing cells in the stomach. These typically take effect within an hour, but are only effective for a short duration of time. They do not suppress acid production like PPIs do. Examples include: Pepcid, Tagamet, Zantac.

**Antacids**
Group of medications used to neutralize the acid in the stomach, but do not suppress acid production. Examples include: Mylanta, Maalox, Tums. Mylanta/Maalox liquid may be recommended an hour before bed to minimize irritation to the esophagus upon lying down.

**Other Recommended Modifications**
- Smoking Cessation
- Eat Smaller Meals
- Avoid Eating Within 2-3 Hours of Bedtime or Lying Down
- Raise Head of Bed 6-8 inches or Use Pillow Wedge if Needed
- Weight Management
- Stress Management
- Avoid Tight Fitting Clothing

Diagnosing Laryngopharyngeal Reflux (LPR)
LPR is difficult to diagnose because the symptoms are different than those associated with gastroesophageal reflux disease, also known as GERD. Often patients are referred to specialists in Otolaryngology (Ear, Nose and Throat) to further evaluate symptoms. These specialists often use a thin flexible fiber optic lens to visualize the throat and larynx. Inflammation and redness located in the back part of the voice box is usually indicative of reflux changes. Based on these findings, reflux management may be recommended.

Tests that might be ordered may include the following:

**Barium Swallow Study**
The Barium Swallow study is a test in which you swallow liquid mixed with barium contrast (chalky white material). The barium can be seen on the x-ray and allows the doctor to evaluate how you swallow. It helps determine if there is any narrowing or other abnormality of the throat or esophagus, in addition to reflux.

**pH Monitoring**
Watson Clinic now offers a special test that is designed to specifically measure the acid in the throat over a 24-hour period of time. It involves placing a small, soft, flexible tube in the nose