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**LARYNGOPHARYNGEAL REFLUX DISEASE**  
**Recommendations to Prevent Acid Reflux**

**WHAT IS REFLUX?**

When we eat something the food reaches the stomach by traveling down a muscular tube called the esophagus. Once food reaches the stomach, the stomach adds acid and pepsin (a digestive enzyme) so that the food can be digested. The esophagus has two sphincters (bands of muscle fibers that close off the tube) that help keep the contents of the stomach where they belong. One sphincter is at the top of the esophagus (at the junction with the upper throat) and one is at the bottom of the esophagus (at the junction with the stomach). The term REFLUX means a backward or return flow, and usually refers to the backward flow of stomach contents through the sphincters and into the esophagus or throat.

**WHAT IS GERD AND WHAT IS LARYNGOPHARYNGEAL REFLUX DISEASE (LPRD)?**

Some people have an abnormal amount of reflux of stomach acid up through the lower sphincter and into the esophagus. This is referred to as GERD or Gastroesophageal Reflux Disease. If the reflux makes it all the way up through the upper sphincter and into the back of the throat, it is called LPRD or Laryngopharyngeal Reflux Disease. The structures in the throat (pharynx, larynx, and lungs) are much more sensitive to stomach acid and digestive enzymes, so a small amount of reflux into this area can result in more damage.

**WHY DON'T I HAVE HEARTBURN OR STOMACH PROBLEMS?**

This is a question that is often asked by patients with LPRD. The fact is that very few patients with LPRD experience significant heartburn. Heartburn occurs when the tissue in the esophagus becomes irritated. Most of the reflux events that can damage the throat happen without the patient ever knowing that they are occurring.

**COMMON SYMPTOMS OF LPRD:**

|   |                                      |
|---|--------------------------------------|
| Hoarseness  | Asthma-like symptoms                 |
| Chronic (ongoing) cough                               | Referred ear pain                    |
| Frequent throat clearing                              | Post-nasal drip                      |
| Pain or sensation in throat                           | Singing - difficulty with high notes |
| Bad/bitter taste in mouth (especially in the morning) | Problems with swallowing             |
| Feeling of lump in throat                             |                                      |

**DIAGNOSIS OF LPRD:**

The following signs seen by the physician are strong indicators of LPRD:

1. Red, irritated arytenoids (structures at the back of the vocal folds).
2. Red, irritated larynx.
3. Small laryngeal ulcers.
4. Swelling of the vocal folds.
5. Granulomas in the larynx.
6. Evidence of hiatal hernia (may or may not be associated with reflux).
7. Significant laryngeal pathology of any type.



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**DEFINITIVE DIAGNOSTIC TESTING FOR LPRD:**

The 24-hour Pharyngo-Esophageal pH monitoring is the gold standard for monitoring reflux events associated with LPRD. A small tube is passed through the nose into the esophagus in order to monitor the amount and type of reflux during a typical day. One of the biggest advantages is that it allows the testing of the patient's system while performing his/her daily routine. In LPRD patients, it is important that the upper channel is placed at the level of the laryngeal (voice box) inlet.

**TREATMENT FOR LPRD:**

1. **Stress:** Take significant steps to reduce stress! Make time in your scheduled to do activities that lower your stress level. Even moderate stress can dramatically increase the amount of reflux.
2. **Foods:** You should pay close attention to how your system reacts to various foods. Each person will discover which foods cause an increase in reflux. The following foods have been shown to cause reflux in many people. It may be necessary to avoid or minimize some of the following foods:
  - A. Spicy, acidic and tomato-based foods like Mexican or Italian foods.
  - B. Acidic fruit juices such as orange juice, grapefruit juice, cranberry juice, etc.
  - C. Fast foods and other fatty foods.
  - D. Caffeinated beverages (coffee, tea, soft drinks) and chocolate
  - E. Peppermint
  - F. Dairy (milk, cheese) may cause rebound acid.
3. **Mealtime:**
  - A. Don't gorge yourself at mealtime.
  - B. Eat sensibly (moderate amounts of food).
  - C. Eat meals several hours before bedtime.
  - D. Avoid bedtime snacks.
  - E. Don't exercise immediately after eating.
4. **Body Weight:** Try to maintain a healthy body weight. Being overweight can dramatically increase reflux.
5. **Nighttime Reflux:** If the 24-hour pH monitoring demonstrates nocturnal reflux, elevate the head of your bed 4 to 6 inches with books, bricks, or a block of wood to achieve a 10-degree slant. Do not prop the body up with extra pillows, this may increase reflux by kinking the stomach. Recent studies have shown that reflux occurs much more often during the day when upright. This suggestion may be much less important than once believed.
6. **Tight Clothing:** Avoid tight belts and other restrictive clothing.
7. **Smoking:** If you smoke, STOP! This dramatically increases reflux and the possibility of many other physical conditions.

**MEDICATIONS FOR LPRD:**

1. The most successful form of medical treatment for LPRD has been with the use of proton pump inhibitors (Prevacid, Aciphex, Protonix, or Nexium). Other medications such as H2 blockers (Axid, Pepcid, Tagamet, Zantac) and antacids (Tums, Gaviscon, Mylanta) may have some added benefits.
2. From the beginning of treatment until improvement may take one to three months on average.