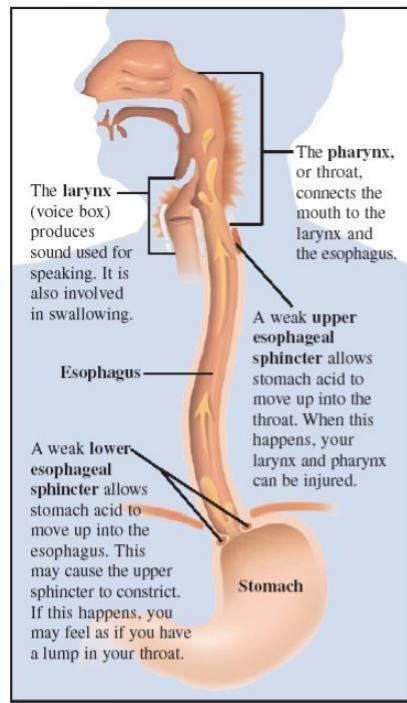


## Laryngopharyngeal Reflux

Your doctor has diagnosed you as having Laryngopharyngeal Reflux Disease (LPR). This condition develops when stomach acid travels up into your throat. Although you may experience “heartburn” or “indigestion,” many of our patients do not have these complaints.

### How Reflux Affects Your Throat



Some of the more common symptoms our patients experience include: a sensation of drainage down the back of the throat or excessive mucus the feeling of something caught in the throat (sometimes a tickling or burning sensation)

- throat clearing
- chronic cough
- postnasal drip
- sore throat
- hoarseness
- difficulty swallowing
- loss of high-end vocal range

### Diagnosis of LPR:

Your doctor can often diagnose LPR by examining your throat and vocal cords with a rigid or flexible telescope. The voice box is typically red, irritated and swollen from acid reflux damage. This swelling and inflammation will eventually resolve with medical treatment, although it may take a few months.

At other times, you may have to undergo a dual-channel pH probe test to diagnose your condition. This process involves placing a small tube (catheter) through your nose and down into your swallowing passage (esophagus). The catheter is worn for a 24-hour period and measures the amount of acid that refluxes into your throat. This test is not often necessary, but it can provide critical information in certain cases.

### Treatment of LPR:

Most of the time, LPR is well controlled with medications (Proton Pump Inhibitors, or PPIs), as described on the back of this sheet. Occasionally, surgery is needed in severe cases or those that don't resolve with medications. The recommended surgery is called a laparoscopic nissen fundoplication, and a general surgeon performs it. Positive proof of reflux disease is needed first, generally by a pH probe study. With some patients, the doctor must examine the esophagus (swallowing tube) for premalignant changes.

One of the first things you must do is make some changes in your lifestyle. Many foods and drinks can make your symptoms worse, and it is important that you eliminate those. In addition, being overweight, smoking and drinking alcohol are all factors that worsen reflux disease. It is important to work on the following areas as well:

1. **CUT OUT CAFFEINE.** Specifically, avoid coffee (highest caffeine content), tea and caffeinated soft drinks. Soft drinks such as Coke and Pepsi are particularly bad because they are very acidic (pH of 2.3), and the carbonation leads to belching and further reflux of acid into the throat. Other acidic juices (orange, grapefruit, cranberry) can worsen reflux.
2. **AVOID CHOCOLATE AND MINTS.**
3. **AVOID ALCOHOL**, especially in the late evening and before bedtime.

4. QUIT SMOKING.
5. ELIMINATE FRIED, FATTY AND SPICY FOODS FROM YOUR DIET. A low-fat diet is the best way to avoid reflux. Onions and garlic are notorious for causing reflux.
6. LOSE WEIGHT if you're overweight. Avoid tight-fitting clothing.
7. STOP EATING AT LEAST THREE HOURS BEFORE GOING TO BED. Eating a heavy meal just before going to sleep is especially bad for your reflux condition.
8. TAKE THE MEDICINES YOUR DOCTOR HAS PRESCRIBED FOR YOU. In most cases, your doctor will prescribe a "proton pump inhibitor" (PPI) drug such as Nexium, Prevacid, Protonix, Prilosec or Aciphex. These drugs are typically prescribed for TWICE A DAY, which is double the usual dose for routine reflux disease. Please see below for more details on your medication.
9. ELEVATE THE HEAD OF YOUR BED FOUR TO SIX INCHES by placing wood or cinder blocks under the headboard.

Most of our patients have daytime reflux disease, and this step is not necessary for two-thirds of our patients. If your symptoms are worse in the morning (indicating active reflux at night), this step is important. Placing several pillows under your head does not substitute for raising the head of the bed; in fact, this maneuver can make the problem worse.

**Important information** about your medications: If you are taking a Proton Pump Inhibitor (PPI) such as the following: Nexium, Protonix, Prevacid, Aciphex or Prilosec (omeprazole), it is important to take your medicines 30 minutes to one hour before meals. Most of these medicines are given twice a day, which will mean taking a pill before breakfast and dinner. The medicine is absorbed better if taken this way.

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### **Reflux Regimen:**

#### **Medication:**

1. If your physician prescribes medications for your condition, take the medications for as long as directed and obtain refills until your physician tells you the medication should be discontinued. Sometimes office-based procedures can be done to evaluate the adequacy of therapy.
2. Antacids, such as Mylanta II, can be taken one hour after each meal and one hour before bedtime.

#### **Behavioral Modifications:**

1. If you are overweight, try to achieve your ideal body weight as soon as possible. See your primary care physician regarding a weight reduction program.
2. Elevate the head of your bed.
3. You will have periodic voice and laryngeal examinations to monitor for laryngeal and voice improvement.

#### **Diet Modifications:**

1. Three hours should elapse between cessation of the intake of any food or drink and bedtime.
2. Avoid intake of any food or drink that contains cocoa (chocolate, hot cocoa, chocolate cake, etc.).
3. Avoid intake of alcohol, especially before bedtime.
4. Avoid intake of any food or drink that contains caffeine (colas, tea, coffee, Mountain Dew, etc.)
5. If you smoke, discontinue. If you do not smoke, DO NOT START.

Recommended foods	Foods that may cause distress
<b>Beverages:</b> Skim, 1%, 2%, low-fat milk, buttermilk, juices (except citrus), decaffeinated, non-mint herbal teas	Whole milk, chocolate milk, citrus juices, carbonated beverages, tomato juice, mint tea, coffee (regular or decaf), alcohol
<b>Breads and cereals:</b> Plain breads, cereals, rolls, bagels, low-fat crackers, low-fat muffins	Croissant, donuts, sweet rolls
<b>Desserts:</b> Angel food cake, sponge cake, low-fat cookies, gelatin, sherbet, fruit ice, low-fat yogurt or ice cream	Pies, cookies, cakes, ice cream, any desserts containing chocolate
<b>Fats:</b> Reduced calorie/low-fat dressings, mayonnaise, small amounts of vegetable oil	Gravies, heavy cream, meat drippings
<b>Fruits:</b> Fresh, frozen and canned fruits as tolerated	Orange, lemon, tangerine, pineapple, grapefruit, citrus juices
<b>Meat and meat substitutes:</b> Lean meat, poultry (without skin), fish (fresh or packed in water), shellfish, low-fat yogurt, low-fat cheese, tofu, dried beans and peas, eggs	Fried meat, poultry, fish or eggs, regular lunch meat, hot dogs, sausages
<b>Potatoes and starches:</b> Baked, boiled, mashed with low-fat milk, pasta, rice	French fries, potato chips, pasta with cream sauces
<b>Soups:</b> Fat-free broths, homemade soups (cream soups with low-fat milk)	Regular soups and tomato-based soups
<b>Vegetables:</b> Plain fresh, frozen and canned	Fried or creamy-style vegetables and tomato products
<b>Spices:</b> Salt, vinegar, garlic oregano, sage, pepper	Cajun spices, spearmint, peppermint, chili, jalapeño peppers