



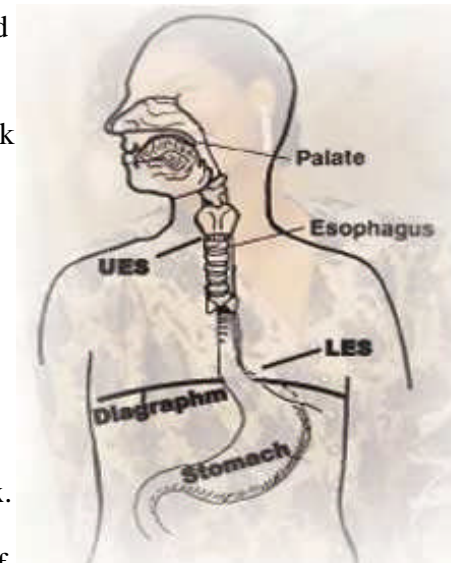
Gastroesophageal Reflux (GERD) & Laryngopharyngeal Reflux (LPR)

What is GERD?

Gastroesophageal reflux, often referred to as "**GERD**" occurs when acid from the stomach backs up into the esophagus. A ring of muscle at the bottom of the esophagus, the *lower esophageal sphincter (LES)*, contracts to keep the acidic contents of the stomach from "refluxing" or coming back up into the esophagus. In those who have GERD, the LES does not close properly, allowing acid to move up the esophagus.

When stomach acid touches the sensitive tissue lining the esophagus and throat, it causes a reaction similar to squirting lemon juice in your eye. This is why GERD is often characterized by the burning sensation known as "*heartburn*."

In some cases, reflux can be **SILENT**, with no symptoms until significant other problems arise or symptoms not realized to be connected to the reflux. Almost all individuals have experienced reflux, but the disease (GERD) occurs when reflux happens on a frequent basis often over a long period of time.



What is LPR?

During gastroesophageal reflux, the acidic stomach contents may reflux all the way up beyond the esophagus, beyond the upper esophageal sphincter (UES: 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 "**Laryngo-Pharyngeal Reflux (LPR)**", which can affect anyone. Many times, a person with LPR has symptoms of LPR but does not recognize those symptoms as being reflux related or caused. Thus it may be referred to as "**Silent Reflux**."

What are the symptoms of GERD and LPR?

The symptoms of GERD and / or LPR may include persistent heartburn, acid regurgitation, nausea, hoarseness in the morning, or trouble swallowing. Some people have GERD without heartburn. Instead, they experience pain in the chest that can be severe enough to mimic the pain of a heart attack. GERD can also cause a dry cough and bad breath. Some people with LPR may feel as if they have food stuck in their throat, a bitter taste in the mouth on waking, or difficulty breathing although uncommon. Adults with LPR have a many symptoms or even just one or two of the symptoms.

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SYMPTOMS OF LPR & GERD

- **Bitter taste**
- **Sensation of burning in the throat**
- **Something "stuck" in the throat**
- **Difficulty swallowing or a "lump" sensation in their throat**
- **Hoarseness, especially in the morning**
- **Halitosis (bad breath)**
- **Frequent throat clearing**
- **Chronic non-productive cough**
- **Persistent Post-nasal drainage**
- **Asthma like symptoms**
- **Frequent bronchitis or asthma flare-ups**
- **Referred ear pain,**
- **Neck pains / sore throats**

LPR is DIFFERENT from GERD!

The "classic symptoms" of GERD in most patients:

- Heartburn - 83%
- Cough - 47%
- Dysphagia (difficulty swallowing) – 40%
- Regurgitations (bitter / sour / acidic taste) - 23%

On contrast, the typical symptoms of LPR in the typical ENT patient:

- Hoarseness - 71%
- Chronic cough – 51%
- Dysphagia (difficulty swallowing) – 51%
- Throat clearing (constant phlegm or PND) – 42%
- Globus (lump sensation) – 47%
- Heartburn or typical regurgitation – 10-33%

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 for GERD or an otolaryngologist-head and neck surgeon (ENT doctor).

Diagnosing and Treating GERD and LPR

In adults, 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 throat and larynx, 24 hour pH probe, acid reflux testing, esophageal motility testing (manometry), Barium Swallow Esophagography (Normal in 77%), EGD – Esophagoscopy (Normal in 80%), Gastric emptying studies (Nuclear medicine). and esophageal acid perfusion "Bernstein test" – (normal in 70%). Laryngeal Endoscopic examinations can often be performed in your ENT's office.

TREATMENT for GERD and LPR

Most people with GERD and LPR, respond favorably to a combination of lifestyle changes and medication. Medications that could be prescribed include antacids, anti-histamines, Proton-Pump Inhibitors, Gastric pro-motility drugs, and even 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 “Nissan fundoplication” a procedure where a part of the stomach is wrapped around the lower esophagus to tighten the LES.

ADULT LIFESTYLE CHANGES TO CONTROL and PREVENT LPR

- Avoid eating and drinking within 2-3 hrs prior to bedtime
- Do NOT drink Alcohol
- Eat small meals, and eat slowly
- Limit “problem foods”
 - Caffeine
 - Carbonated beverages
 - Chocolate
 - Peppermint
 - Spices / Tomatoes and citrus foods
 - Fatty and fried food.
- Lose weight (10% of current weight)
- Quit smoking
- Raise the Head of the bed – about 4 inches

MEDICATIONS

Proton pump Inhibitors(PPI)

These are the strongest medications. These work best if taken 30 minutes prior to a meal.

NEXIUM (Esemeprozole) 20 or 40mg: Maximum dose – 80mg / day.

PROTONIX (Pantoprozole) 20 or 40mg

PRILOSEC (Omeprazole) 10, 20, 40mg

PREVACID (Lansoprozole) 15 or 30mg

ACIPHEX (Rabeprozole) 20mg

ZEGRED (Omeprozole / Sodium Bicarbonate) 20/1100, 40/1100

KAPIDEX (Dexlansoprazole) 30 or 60mg

H-2 Blockaid Medications (Over-the-counter medications)

ZANTAC (Ranitidine) 75 or 150 mg

PEPCID (Famatodine) 20 or 40 mg

TYPICAL REGIMEN is a double medication for at least 3- 6 month regimen. Dr Bickert typically prescribes:

- **NEXIUM 40mg** once a day (In severe cases – twice a day regimen for one month).
- **ZANTAC 150mg** at night before bed. (May use 300 mg)

Other alternative options if your insurance company refuses to cover the above medications are the over-the-counter (OTC) versions which are usually about half dose of a prescription level.

- **OTC Prilosec (20mg)** (must take 2 tablets to reach/achieve the prescription strength)
- **OTC Prevacid (15mg)** (must take 2 tablets to reach/achieve the prescription strength)

PRESCRIPTION INFORMATION

If Dr. Bickert has prescribed one of the following medications (or similar) as part of your treatment plan, please understand that on occasion, these medications are limited in their coverage through insurance drug plans. If your insurance company requests a prior authorization for the medication, please understand the insurance company's protocol takes time to complete and may result in a delay in the availability of your prescription. Your insurance company's protocols are exactly that...your insurance company's protocols, not Lone Star Ear, Nose and Throat Care's rules or decisions. Therefore, these protocols may sometimes conflict with Dr. Bickert's treatment plan for you.

Proton Pump Inhibitors, such as:
Nexium (Esomeprazole)
Prilosec (Omeprazole)
Protonix (Pantoprazole)
Prevacid (Lansoprazole)

On occasion, your insurance company may request a change in prescription or in dosage to meet your drug plan coverage requirements. These requests are considered on a case by case basis. Dr. Bickert WILL NOT change or alter your treatment plan in order to obtain better coverage from your insurance company. He will only consider a change in treatment if the drug or dosage to be changed is comparable in results.

INFORMATION ABOUT REFILLS

All refill requests should be requested through your pharmacy. Please allow at least 24 hours for a refill request. No refill requests will be considered on weekends and holidays, so please plan accordingly.

*Your insurance is a contract **between you and your insurance company**, and is ultimately your responsibility. It is extremely important for you to know your coverage. Thank you for your understanding.*

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