



## ***Gastroesophageal Reflux Disease (GERD), Laryngopharyngeal Reflux (LPR), and Nasal & Sinus Symptoms***

### **What is GERD/LPR?**

When you eat, food passes from your mouth, down your throat into your “food pipe”. This is called the esophagus. The esophagus empties into the stomach. A muscle called the lower esophageal sphincter is present at the junction of the esophagus and stomach and tightens closed after entering the stomach to prevent stomach contents from returning to the esophagus. Backward motion of stomach contents is called reflux. When it returns to the esophagus it is called Gastroesophageal Reflux (GERD) but when the contents find themselves up in the throat again it is referred to as Laryngopharyngeal Reflux (LPR). When stomach acid enters the esophagus it can cause symptoms of heartburn. Some people reflux and are unaware it is occurring so-called silent reflux.

Interestingly, recent medical publications have revealed the presence of pepsin ( a stomach enzyme) in the middle ear of children with otitis media (middle ear infections). Also, H. pylori, the bacteria that is associated with stomach ulcers has been identified in the nasal passages of some individuals with rhinosinusitis. This information is not adequate proof that ear and nasal disease could be occurring in part because of GERD or LPR. Further investigations are underway to better define any such relationship.

### **Signs & Symptoms that have been attributed to GERD or LPR include:**

- Heartburn
- Chronic hoarseness
- Throat clearing
- Sensation of a lump in your throat
- Tight sensation in your throat upon swallowing
- Sensation of mucus or phlegm in your throat
- Acid taste
- Halitosis
- Post-nasal drip

### **LPR & GERD can cause serious health problems which include:**

- Asthma
- Bronchitis
- Choking problems
- Very rarely it is associated with cancer of the esophagus

Several tests can be ordered to determine if you have this problem. A 24 hour pH-probe is believed the gold standard to determine the presence of GERD/LPR but it is only accurate as often as 85% of the time. A barium swallow of your esophagus and stomach is an X-ray test that can document GERD/LPR only if it occurs when the reflux is active at the time the test is done. An upper endoscopy of your GI tract can show any evidence of pre-malignant or malignant conditions in the stomach.



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### **Several factors are associated with why reflux occurs:**

- Position of the body – upright posture helps prevent reflux
- Size of your meals – smaller meals reduce reflux
- Nature of the food you eat can irritate or weaken the esophagus

### **Lifestyle changes you can make to treat reflux include:**

- Stop smoking
- Low fat diet
- Eat smaller meals more often
- Do not lie down within 3 hours of eating
- Avoid bedtime snacks
- Raise the head of your bed by 6”
- Avoid:
  - Chocolate
  - Mint
  - Cheese
  - Acidic juices
  - Caffeinated beverages – coffee, tea
  - Soda pop
  - Alcoholic beverages

### **Medications can also bring about relief these include:**

- Antacids - Maalox, Mylanta, Gelucil, Gaviscon, Roloids, Tums
- H2 blockers – ranitidine/Zantac®, famotidine/Pepcid AC®, cimetidine/Tagamet®, nizatidine/Axid®
- Proton Pump Inhibitors – (omeprazole/Prilosec®, lansoprazole/Prevacid®, esomeprazole/Nexium®)

**Adverse Effects:** Acid pump inhibitors (Prilosec®, Prevacid®, and Nexium®) may alter absorption of pH dependent drugs such as ketoconazole/Nizoral® and itraconazole/Sporonox®. Common side effects are diarrhea and headache. Occasionally, these medicines are associated with the very symptoms they are intended to treat, abdominal pains and cramps. Some patients tolerate one medication better than another even though they are similar.

### **How long will I need treatment for?**

GERD/LPR is a chronic and occasionally intermittent problem. It may take months of continuous therapy before it is controlled. Rarely surgery is necessary when the problem is severe or medications cannot be tolerated. Once the initial problem is controlled some patients can switch from continuous medication to therapy on an as needed basis. The medicines used to treat GERD/LPR are generally deemed to be safe and well tolerated.