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## LARYNGOPHARYNGEAL REFLUX (7/13)

Everyone has some degree of **Gastroesophageal reflux (GER)**. This is contrasted with **Gastroesophageal Reflux Disease (GERD)**. This occurs when regurgitation of the stomach contents into the esophagus with enough frequency to cause symptoms or esophageal inflammation. GERD is a common and well know problem. As many as 60 million Americans complain of heartburn, indigestion or acid belching every day. 18 million Americans take medication of heartburn more than twice a week. However, not everyone has these obvious symptoms. Some people instead complain of difficulty swallowing, a feeling of mucus or thick phlegm in the throat, sensation of a ball in the throat (globus pharyngeus), chronic sore throat, chronic irritative cough, hoarseness, chronic throat clearing, frequent gagging and post nasal drip. This is referred to as **Laryngopharyngeal reflux (LPR)**.

LPR refers to the backflow of stomach contents into the throat. It has become increasingly apparent that LPR differs in many ways from classic GERD. Patients with LPR appear to have different symptoms, findings, and patterns of reflux and response to treatment than do patients with GERD. Unlike GERD symptoms, LPR symptoms do not resolve in a matter of days to weeks; often it takes several months for resolution to occur. It is important to note that although most patients with LPR do not have GERD, some patients do indeed have both LPR and GERD. **In fact, 70% of patients with documented LPR do not have indigestion or heartburn.** The throat is more fragile than the esophagus to the effects of acid reflux and results in inflammation with only minimal exposure. Unfortunately, most medication prescribed for GERD last at most 14 hours leaving the throat unprotected for many hours each day. As a result, prescription Proton Pump Inhibitor (PPI) medication to block acid production in the stomach needs to be taken **twice daily** preferably one hour prior to a significant meal.

	<b>GERD</b>	<b>LPR</b>
<b>Symptoms</b>		
Heartburn and/or regurgitation	++++	+
Hoarseness, cough, difficulty swallowing, globus sensation, sore throat, throat clearing, gagging	+	++++
<b>Findings</b>		
Esophageal inflammation	++++	+
Larynx (voice box) inflammation	+	++++
<b>Pattern of Reflux</b>		
Lying down (nocturnal) reflux	++++	+
Upright (daytime) reflux	+	++++
Both	+	++
<b>Response to Treatment</b>		
Effectiveness of dietary and lifestyle modifications	++	+
Effectiveness of over the counter antacids and anti-reflux medication ( <i>Tagamet, Zantac, Pepcid</i> , etc)	++	+
Successful treatment with <b>once daily</b> Proton Pump Inhibitor (PPI) medication ( <i>Prilosec, Nexium, Prevacid, Protonex, Aciphex</i> , etc)	+++	+
<b>Successful treatment with twice-daily</b> Proton Pump Inhibitor (PPI) medication ( <i>Prilosec, Nexium, Prevacid, Protonex, Aciphex</i> , etc) <b>when used for 3 months</b>	++++	+++

**Lifestyle Modifications**

If symptoms such as those just listed occur, a trial of the simple steps that control acid reflux is recommended.

- ◆ Avoid strenuous exercise after eating.
- ◆ Loss excess pounds if you are overweight.
- ◆ Do not over eat at mealtimes. It is preferred to eat small, more frequent meals than large meals.
- ◆ Avoid wearing tight fitting clothes.
- ◆ Eat the last meal/snack of the day no fewer than three hours before going to sleep. In addition try to eat the heavier meal of the day at noon, and a lighter one in the evening. The purpose of these suggestions is to have the stomach relatively empty when one lies down so that there is not a lot of "back pressure" to push stomach contents up the esophagus.
- ◆ Avoid the following substances which may increase stomach acidity or loosen the valve separating the esophagus from the stomach.

Chocolate	Peppermint
Caffeinated beverages	Spearmint
Coffee	Tomato-based products
Tea	Spicy foods
Alcohol	Onions
Carbonated beverages (Cola, soft drinks)	High fat meals
Citrus juices	Acidic foods
Smoking (nicotine)	Aspirin or ibuprofen

- ◆ Use 4 to 6-inch bed blocks under the head posts of the bed. Most commonly, old books or wooden blocks work well for this purpose. This procedure puts the entire bed on a slight downward slant from head to foot. Gravity now assists in keeping stomach contents where they belong. Raising the head with pillows defeats the purpose since it kinks the abdomen, puts excessive pressure on the stomach, and may results in more acid reflux.
- ◆ Left sided sleep positioning.
- ◆ Baking soda chewing gum.
- ◆ Take medication as prescribed.
- ◆ Use a bedtime dose of either an anti-secretory agent (*Tagamet, Zantac, Pepcid, Prilosec, Nexium, Prevacid, Protonex, Aciphex, etc.*) or a simple antacid (*Gaviscon, Mylanta, Maalox, Amphogel, etc.*) in order to reduce stomach acidity.
- ◆ Some prescription and over the counter medications can cause heartburn. Always inform your doctor of all medications. The following medications may contribute to reflux pharyngitis.

Antidepressants	Estrogen
Antihistamines	Heart medicine
Theophylline	Tranquilizers
Narcotic pain medication	Blood pressure medication
Anti-inflammatory medication (aspirin, ibuprofen, naproxen, <i>Motrin, Advil, Aleve, Lodine, Mobic, etc.</i> )	<i>Tylenol, Celebrex, Bextra, and Vioxx</i> are not a problem.

- ◆ It is recommended that a trial of the above measures be continued for a minimum of two to four months, and that none of the treatments outlined be omitted.