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Laryngopharyngeal Reflux

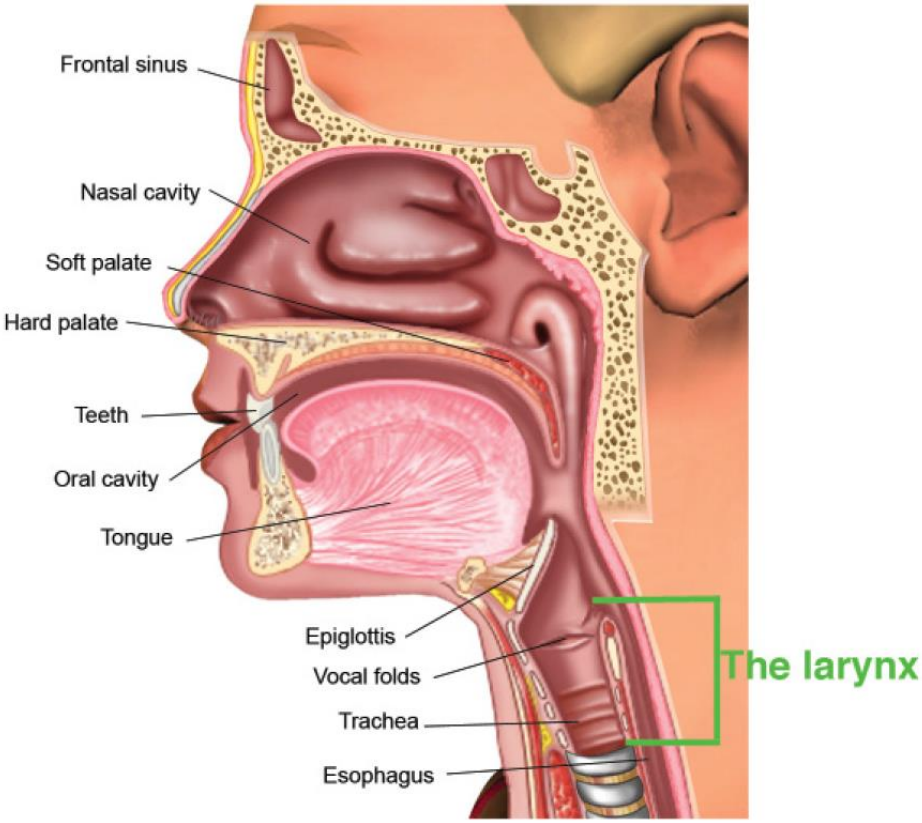
What is laryngopharyngeal reflux (LPR)?

Food or liquids that are swallowed travel through the esophagus and into the stomach where acids help digestion. Each end of the esophagus (upper and lower) has a sphincter, a ring of muscle, that helps keep the acidic contents of the stomach in the stomach or out of the throat. When these rings of muscle do not work properly, you may get heartburn or gastroesophageal reflux (GER). Chronic GER is often diagnosed as gastroesophageal reflux disease or GERD. Sometimes, acidic stomach contents will reflux all the way up to the esophagus, past the ring of muscle at the top (upper esophageal sphincter or UES), and into the throat. When this happens, acidic material contacts the sensitive tissue at back of the throat and even the back of the nasal airway. This is known as laryngopharyngeal reflux or LPR. Often, LPR occurs "silently" or without the usual symptoms of GER.

GERD and/or LPR are often caused by or can occur from:
- Overweight
- Pregnancy
- Hiatal hernia (part of the stomach protrudes through the diaphragm into the chest)
- Eating large meals
- Lying down right after you eat

What are symptoms of LPR?

There are various symptoms of LPR. Adults may be able to identify LPR as a bitter taste in the back of the throat, more commonly in the morning upon awakening, and the sensation of a "lump" or something "stuck" in the throat, which does not go away despite multiple swallowing attempts to clear the "lump." Some adults may also experience a burning or dry sensation in the throat. A more uncommon symptom is difficulty breathing, which occurs because the acidic, refluxed material comes in contact with the voice box (larynx) and causes the vocal cords to close to prevent aspiration of the material into the windpipe (trachea). This event is known as "laryngospasm."



Symptom summary of LPR?

- Chronic cough/ Nocturnal cough
- Hoarseness/ Raspy voice
- Reactive airway disease (asthma)
- Sleep disordered breathing (SDB)/ Snoring
- Ear pain
- Feeding difficulty
- Aspiration
- Pauses in breathing (apnea)
- Drainage in throat
- Feeling of a lump in the throat
- Constant clearing of the throat

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What are the complications of LPR?

Chronic exposure of the laryngeal structures to acidic contents may cause long term problems such as a narrowing of the area below the vocal cords (subglottic stenosis), hoarseness, and possibly ear problems like persistent middle ear fluid, and even symptoms of "sinusitis." The direct relationship between LPR and the latter mentioned problems are currently under research investigation.

What can I do to help prevent LPR?

• Avoid smoking and alcohol
• Maintain a healthy weight
• No spicy/acidic foods or beverages
• Avoiding foods that trigger symptoms
• Taking medication prescribed
• Avoid tight clothing
• Elevate the head of the bed by placing 6 inch blocks under the feet at the head of the bed.

How is LPR diagnosed?

Currently, there is no standardized test to identify LPR. Most of the time treatment for a period of 8 weeks is the best and most cost effective method of diagnosing LPR. If patient's notice any symptoms of LPR, they may wish to discuss with their PCP a referral to see a gastroenterologist or otolaryngologist for evaluation. An otolaryngologist may perform a flexible Fiberoptic nasopharyngoscopy/ laryngoscopy, which involves sliding a 4 mm scope through the nostril, to look directly at the voice box and related structures or a 24 hour pH monitoring of the esophagus. He or she may also decide to perform further evaluation, for example a direct laryngoscopy. LPR remains a diagnosis of clinical judgment based on history given by the patient, the physical exam, endoscopic, and other evaluations.

Summary of diagnostic testing:

Your provider may order the following tests:
• pH probe
• Esophageal manometry (a test to measure pressure in the esophagus)
• X-rays
• Endoscopy, a procedure performed by a Gastroenterologist in which a thin flexible tube with a tiny camera is placed in your mouth and down into your esophagus and stomach.

How is LPR treated?

Since LPR is an extension of GER, successful treatment of LPR is based on successful treatment of GER. Basic recommendations may include smaller and more frequent meals sitting in a vertical position after eating for at least 30 minutes. A trial of medications including H2 blockers or proton pump inhibitors may be necessary. Those who fail medical treatment, or have diagnostic evaluations demonstrating anatomical abnormalities may require surgical intervention by a qualified general surgeon (such as a laparoscopic fundoplication).

How is LPR treated?

• Over the couther Antacids (like Gaviscan, Maalox, or Mylanta) to take before meals and/or at bedtime
• Medicine that decrease the amount of acid you stomach makes
• Weight loss to decrease the pressure on your stomach
• Eating smaller meals
• No eating within 2-3 hours of bedtime, avoid late night snacking or meals.
• Raising the head of your bed about 6 inches to help the acid stay in your stomach.