

LARYNGOPHARYNGEAL REFLUX (LPR)

1. **What is laryngo pharyngeal reflux:** When acid contents of stomach back flows into throat, the acid burns the mucosa or lining of throat (Pharynx) or Voice box (Larynx) giving rise to symptoms of Laryngo pharyngeal reflux (LPR).LPR is also somewhat similar to another condition called GERD or stomach acid back flowing into Esophagus. LPR can occur in the absence of GERD also that is why it is called 'Silent Reflux'.
2. **What causes LPR:** At either ends of esophagus there are two sphincters consisting of ring of muscles which prevent back flow of stomach contents. When the sphincters do not work well or develop incompetence then LPR develops.
3. **What are the symptoms of LPR:** LPR can also occur in infants and children giving rise to the following symptoms:
 - Hoarseness
 - Barking type chronic cough
 - Reactive airway leading to Asthma
 - Feeding problems
 - Noisy breathing
 - Inability to gain weight

In adults the symptoms can be the following:

- Excessive throat clearing
- Chronic persistent cough
- Change in voice
- Feeling of lump in throat
- Sensation of Post nasal drip or mucus collecting in throat
- Breathing trouble, sometimes patient may feel choking sensation

4. **What complications can LPR cause:** LPR can lead to the following complications in small children like:
 - Narrowing of airway below the vocal cords
 - Contact ulcers in posterior portion of Voice box or larynx
 - Sometimes recurrent ear infection
 - Asthma

In adults LPR can give rise to the following complications:

- Scarring of voice box or larynx
- Can give rise to throat cancer
- Chronic lung diseases like Asthma, Bronchitis etc;.

5. **How is LPR is diagnosed:** _ENT Specialist can easily diagnose by taking careful history, physical examination supplemented by the following tests like:
- Endoscopic examination preferably with video laryngoscopy using either flexible or rigid endoscopy
 - Continuous pH monitoring: a catheter is inserted through nose into esophagus and stomach, whose sensors can estimate the pH level at the level of larynx, esophagus and stomach over a period of 24 hours.
6. **How to treat LPR:** In case of children the following measures are required:
- Small and frequent feeds
 - After feeds keep the child vertical for about 30 mins.
 - H2 receptor blocking drugs or Proton pump inhibitor drugs

In case of adults:

- Lifestyle modification like timely meals, losing weight, avoiding smoking and alcohol, avoiding aerated drinks etc;.
- Avoid lying down for one and half hour after having major meals
- Elevate the head end of bed by 4 to 6 inches
- H2 receptor blocking drugs or Proton pump inhibitor drugs
- sometimes a pro kinetic drug like Domperidon, Mosapride,
- Antacids

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