

# WHAT ARE THE PATHOPHYSIOLOGICAL MECHANISMS UNDERLYING THE DEVELOPMENT OF HOARSENESS IN LARYNGOPHARYNGEAL REFLUX DISEASE ?

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## Abstract:

**Objective:** To date, any recent pathophysiological model trends to explain the occurrence of hoarseness related to laryngopharyngeal reflux disease (LPRD). The aim of this paper is to shed light on the etiopathogenesis and pathophysiological mechanisms underlying the development of hoarseness related to laryngopharyngeal reflux disease (LPRD).

**Data Sources:** PubMed, EMBASE, and The Cochrane Library were searched for the terms reflux, laryngopharyngeal, laryngitis, voice, and hoarseness.

**Review Methods:** Experimental and clinical studies providing substantial information about the occurrence of voice disorders, laryngeal histological changes or any pathophysiological process related to LPRD were included by two independent investigators.

**Results:** Of the 104 studies reviewed, 47 studies met our inclusion criteria were analyzed. LPRD leads to significant macroscopic and microscopic histopathological changes in the mucosa of the vibratory margin of the vocal folds. More and more studies suspect that epithelium cell dehiscence, microtraumatism, inflammatory infiltrate, Reinke space dryness, mucus drying, and epithelium thickening are probably responsible of the hoarseness related to reflux and the impairment of the subjective and objective voice quality evaluations.

**Conclusion:** Additional experimental and clinical studies are needed to elucidate the pathophysiological mechanisms underlying the development of hoarseness in LPRD.