



## Voice Disorders

Most changes in the voice result from a medical disorder. Failure to seek a physician's care can lead to hoarseness and more serious problems.

### *Laryngitis*

Laryngitis is a swelling of the vocal cords usually due to an infection. A viral infection (a "cold") of the upper respiratory track is the most common cause for infection of the voice box. When the vocal cords swell in size, they vibrate differently, leading to hoarseness. The best treatment for this condition is to rest or reduce your voice use and stay well hydrated. Since most of these infections are caused by a virus, antibiotics are not effective. It is important to be cautious with your voice during an episode of laryngitis, because the swelling of the vocal cords increases the risk for serious injury such as blood in the vocal cords or formation of vocal cord nodules, polyp, or cysts.

### *Vocal Cord Lesions*

Benign noncancerous growths on the vocal cords are caused by voice misuse or overuse and from trauma or injury to the vocal cords. These lesions ("bumps") on the vocal cord(s) alter vocal cord vibration. This abnormal vibration results in hoarseness and a chronic change in one's voice quality, including roughness, raspiness, and an increased effort to talk. The most common vocal cord lesions include vocal nodules also known as "singer's nodes" or "nodes" which are similar to "calluses" of the vocal cords. They typically occur on both vocal cords opposite each other. These lesions are usually treated with voice rest and speech therapy (to improve the speaking technique thus removing the trauma on the vocal cords). Vocal cord polyp(s) or cyst(s) are other common vocal cord lesions caused by misuse, overuse, or trauma to the vocal cords and frequently require surgical removal after all nonsurgical treatment options (i.e., speech therapy) have failed.

### *Gastroesophageal Reflux Disease And Laryngopharyngeal Reflux Disease*

Reflux (backflow of gastric contents) into the throat of stomach acid can cause a variety of symptoms in the esophagus (swallowing tube) as well as in the throat. Hoarseness (chronic or intermittent), swallowing problems, a foreign body sensation, or throat pain are common symptoms of gastric acid irritation of the throat, called laryngopharyngeal reflux disease (LPRD). LPRD is difficult to diagnose because approximately half of the patients with this disorder have no heartburn symptoms which traditionally accompany gastroesophageal reflux disease (GERD).

Your gastric acid can flow up to the throat at any time. The at-night aspect of LPRD is thought to be the hardest to diagnose because there are usually no specific symptoms while the reflux occurs. Consequently, patients will awake with throat irritation, hoarseness, and throat discomfort without knowing the cause. An examination of the throat by an otolaryngologist will determine if stomach acid is causing irritation of the throat and voice box.

### ***Poor Speaking Technique***

Improper or poor speaking technique is caused from speaking at an abnormally or uncomfortable pitch, either too high or too low, and leads to hoarseness and a variety of other voice problems. Examples of this condition are when young adult females, in a work environment, consciously or subconsciously choose to speak at a lower than appropriate pitch and with a heavy voice. Percussive speaking, a voice too loud or focusing on the first syllable of each word, is another improper speaking technique that may result in injury or trauma to the vocal cords and muscles causing “vocal fatigue”.

Other factors leading to improper speaking technique include insufficient or improper breathing while talking, specifically breathing from the shoulders or neck area instead of from the lower chest or abdominal area. The consequence of this practice is increased tension in the throat and neck muscles, which can cause hoarseness and a variety of symptoms, especially pain and fatigue associated with talking. Voice problems can also occur from using your voice in an unnatural position, such as talking on the phone cradled to your shoulder. This requires excessive tension in the neck and laryngeal muscles, which changes the speaking technique and may result in a voice problem.

### ***Vocal Cord Paralysis***

Hoarseness and other problems can occur related to problems between the nerves and muscles within the voice box or larynx. The most common condition is a paralysis or weakness of one or both vocal cords. Involvement of both vocal cords is rare and is usually manifested by noisy breathing or difficulty getting enough air while breathing or talking. However, one vocal cord can become paralyzed or severely weakened (paresis) after a viral infection of the throat, after surgery in the neck or cheek, or for unknown reasons.

The immobile or paralyzed vocal cord typically causes a soft, breathy, weak voice due to poor vocal cord closure. Most paralyzed vocal cords will recover on their own within several months. There is a possibility that the paralysis may become permanent, which may require surgical treatment. Surgery for unilateral vocal cord paralysis involves positioning of the vocal cord to improve the vibration of the paralyzed vocal cord with the non-paralyzed vocal cord. There are a variety of surgical techniques used to reposition the vocal cord. Sometimes speech therapy may be used before or after surgical treatment of the paralyzed vocal cords or sometimes as the sole treatment. Treatment choices depend on the nature of the vocal cord paralysis as well as the patient’s voice demands.



## ***Throat Cancer***

Throat cancer is a very serious condition requiring immediate medical attention. When cancer attacks the vocal cords, the voice changes in quality, assuming the characteristics of chronic hoarseness, roughness, or raspiness. These symptoms occur at an early stage in the development of the cancer. It is important to remember that prompt attention to changes in the voice facilitate early diagnosis thus early and successful treatment of vocal cord cancer can be obtained.

Persistent hoarseness or change in the voice for longer than two to four weeks in a smoker should prompt evaluation by an otolaryngologist to determine if there is cancer of the larynx (voice box). Different treatment options for this cancer of the voice box include surgery, radiation therapy, and/or chemotherapy. When vocal cord cancer is found early, typically only surgery or radiation therapy is required, and the cure rate is high (greater than 90 percent).

Hoarseness or roughness in your voice is often caused by a medical problem. Contact an otolaryngologist—head and neck surgeon if you have any sustained changes to your voice.



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