



## Hoarseness

### Insight into voice changes

- What causes hoarseness?
- What can you do to treat it?
- When should you see an ENT?
- and more...

Abnormal changes in the voice are called “hoarseness.” When hoarse, the voice may sound breathy, raspy, strained, or show changes in volume or pitch (depending on how high or low the voice is). Voice changes are related to disorders in the sound-producing parts (vocal cords or folds) of the voice box (larynx). While breathing, the vocal cords remain apart. When speaking or singing, they come together and, as air leaves the lungs, they vibrate, producing sound. Swelling or lumps on the vocal cords hinder vibration, altering voice quality, volume, and pitch.

### *What are the causes of hoarseness?*

**Acute Laryngitis:** The most common cause is acute laryngitis—swelling of the vocal cords that occurs during a common cold, upper respiratory tract viral infection, or from voice strain. Serious injury to the vocal cords can result from strenuous voice use during an episode of acute laryngitis.

### **Voice Misuse:**

- Speaking in noisy situations
- Excessive use
- Telephone use with the handset cradled to the shoulder
- Using inappropriate pitch (too high or too low) when speaking
- Not using amplification when public speaking

**Benign Vocal Cord Lesions:** Prolonged hoarseness can occur when you use your voice too much, or too loudly for extended periods of time. These habits can lead to nodules, polyps, and cysts. Vocal nodules (singers’ nodes) are callus-like growths of the vocal cords. Vocal cord polyps and cysts also occur in those who misuse their voice, but can also occur in those who do not.

**Vocal Hemorrhage:** If you experience a sudden loss of voice following a yell or other strenuous vocal use, you may have developed a vocal cord hemorrhage. Vocal cord hemorrhage occurs when one of the blood vessels on the surface of the vocal cords ruptures and the soft tissues fill with blood. It is considered a vocal emergency and should be treated with absolute voice rest and examination by an otolaryngologist (ear, nose, and throat doctor).

**Gastroesophageal Reflux (GERD):** A common cause of hoarseness is gastro-esophageal reflux, when stomach acid comes up the swallowing tube (esophagus) and irritates the vocal cords. Many patients with reflux-related changes of voice do not have heartburn. Usually, the voice is worse in the morning and improves during the day. These people may have a sensation of a lump or mucus in their throat and have an excessive desire to clear it.

**Laryngopharyngeal Reflux (LPRD):** If the reflux makes it all the way up through the upper sphincter and into the back of the throat, it is called LPRD rather than GERD. The structures in the throat (pharynx, larynx, and lungs) are much more sensitive to stomach acid and digestive enzymes, so smaller amounts of the reflux into this area can result in more damage.

**Smoking:** Smoking is another cause of hoarseness. Because smoking is the major cause of throat cancer, if smokers become hoarse, they should see an otolaryngologist.

**Neurological Diseases or Disorders:** Hoarseness can also appear in those who have neurological diseases such as Parkinson's or a stroke, or may be a symptom of spasmodic dysphonia, a rare neurological disorder that usually affects only the voice, but sometimes affects breathing. A paralyzed vocal cord may be the cause of a weak, breathy voice. If the hoarseness persists for more than three months and other causes have been ruled out, a neurologist may be helpful for diagnosis.

**Other Causes:** These include allergies, thyroid problems, trauma to the voice box, and, occasionally, menstruation. Very serious conditions such as laryngeal cancer can also cause hoarseness, which is why it is important to have chronic hoarseness evaluated by an otolaryngologist immediately.

### ***How is hoarseness treated?***

Hoarseness due to a cold or flu may be evaluated by family physicians, pediatricians, and internists who have learned how to examine the larynx. When hoarseness lasts longer than two weeks or has no obvious cause, it should be evaluated by an otolaryngologist. Problems with the voice are often best managed by a team of professionals who know and understand how the voice functions. These professionals are otolaryngologists, speech/language pathologists, and teachers of singing, acting, and public speaking. Vocal nodules, polyps, and cysts are typically treated with a combination of microsurgery and voice therapy.

### ***How is hoarseness evaluated?***

Otolaryngologists will obtain a thorough history of a patient's hoarseness and general health. They will then evaluate the voice and do a complete ear, nose, and throat exam. This includes examination of the vocal cords. Doctors usually look at the vocal cords either with a mirror



placed in the back of the throat, or with a very small, lighted flexible tube (fiberoptic scope) that is passed through the nose to view the vocal cords. Videotaping or stroboscopy (slow-motion assessment) may also help with the analysis. These procedures are well tolerated by most patients. In some cases, special tests designed to evaluate the voice may be recommended. These measure voice irregularities, how the voice sounds, airflow, and other characteristics that are helpful in diagnosing and guiding treatment.

### ***When should I see an otolaryngologist?***

- If hoarseness lasts longer than two weeks, especially if you smoke
- If you do not have a cold or flu
- If you are coughing up blood
- If you have difficulty swallowing
- If you feel a lump in the neck
- If you observe loss or severe changes in voice lasting longer than a few days
- If you experience pain when speaking or swallowing
- If difficulty breathing accompanies your voice change

### ***How are vocal disorders treated?***

The treatment of hoarseness depends on the cause. Many common causes of hoarseness can be treated simply by resting the voice or modifying how it is used. An otolaryngologist may make some recommendations about voice use behavior, refer the patient to other voice team members, and in some instances recommend surgery if a lesion, such as a polyp, is identified. Not smoking and avoiding secondhand smoke is recommended to all patients. Drinking fluids and taking medications to thin out the mucus may help.

### ***How to prevent hoarseness***

Specialists in speech/language pathology (voice therapists) are trained to assist patients in behavior modification to help eliminate some voice disorders. Patients who have developed bad habits, such as smoking or overusing their voice by yelling and screaming, benefit most from this conservative approach. The speech/language pathologist may teach patients to alter their methods of speech production to improve the sound of the voice and to resolve problems, such as vocal nodules. When a patient's problem is specifically related to singing, a singing teacher may help to improve the patients' singing techniques.

### ***Prevention tips:***

- If you smoke, quit.
- Avoid agents that dehydrate the body, such as alcohol and caffeine.



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- Avoid secondhand smoke.
- Stay hydrated—drink plenty of water.
- Humidify your home.
- Watch your diet—avoid spicy foods.
- Try not to use your voice too long or too loudly.
- Use a microphone if possible in situations where you need to project your voice.
- Seek professional voice training.
- Avoid speaking or singing when your voice is injured or hoarse.



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