**Vocal Disorders in Adults**

**Voice Disorders**
Voice disorders produce involuntary (uncontrollable) changes of voice. The two voice disorders that commonly affect older people are vocal cord atrophy and laryngitis.

**Vocal Cord Atrophy**
*Vocal cord atrophy is weakening or abnormal movement of the vocal cords. The difference between the normal changes in voice that occur with aging (presbylarynx) and vocal cord atrophy is one of severity.*

Other than aging itself, the cause of vocal cord atrophy is unknown. As atrophy occurs, muscle tissue in the vocal cords may be replaced by fibrous connective tissue and fatty tissue.

Dryness of the larynx may worsen the changes in the vocal cords that occur with atrophy. Dryness may be due to decreased salivary gland function; use of certain drugs, such as antidepressants with anticholinergic side effects, diuretics, and antihistamines; and nasal obstruction that causes a person to breathe through the mouth. Vocal cord atrophy may also be aggravated when a person strains the voice to overcome changes in sound that normally occur with aging. Straining typically occurs when a person talks too much at a loud volume.

Vocal cord paralysis may occur when a disease or an injury affects the cords themselves or when a disease or injury affects the nerves that control the vocal cords. Examples of such diseases or injuries are viral infections that cause inflammation (viral laryngitis), injury when a breathing tube is inserted into the throat during surgery or when a person is placed on a ventilator, neurologic diseases (such as Parkinson's disease), and tumours.

**Symptoms and Diagnosis**
Vocal cord atrophy may make the voice sound weak, thin, hoarse, husky, breathy, or rough. A weak cough or difficulty swallowing (especially fluids) may also develop. Vocal cord atrophy can also cause a "tickle" that gives a person a constant sensation of needing to clear his throat. These symptoms can also signal the presence of laryngeal cancer and should prompt a visit to a doctor if they last more than a week or two. A doctor makes the diagnosis by passing an endoscope (a flexible viewing tube) through the nasal passages and into the throat to observe vocal cord movement. A special type of x-ray may be taken to ensure that the person can swallow safely without inhaling food: A series of x-rays is taken while a person eats food containing material that can be seen on the x-ray.

**Treatment**
Drinking plenty of fluids and using lozenges, sugarless candy, or chewing gum may help restore the voice by increasing moisture. Resting the voice for a few days can often be helpful. But the main treatment of vocal cord atrophy is speech therapy, in which the person learns how to speak comfortably without straining the vocal cords. Repetition of vocal exercises taught during therapy gradually helps strengthen the voice. Speech therapy may be successful and can result in a stronger and clearer voice. These methods also help relieve any tickling sensation.

Surgery is effective but is regarded as a last resort. The aim of surgery is to move the weak vocal cord closer to the mobile vocal cord; when the two vocal cords make contact, they produce a stronger and clearer voice.
Laryngitis

*Laryngitis is inflammation of the vocal cords.*

The most common cause is a viral infection, such as the common cold, with nasal drainage into the throat. Other causes in older people include tobacco use (either smoking or chewing) and damage to the larynx due to regurgitation of stomach acid (reflux laryngitis).

**Symptoms and Diagnosis**

Symptoms of laryngitis are hoarseness or even loss of voice, sore throat, throat tickling and an urge to clear the throat, and cough. A doctor diagnoses laryngitis and in some cases its cause by asking questions and by examining the throat, either with a light and a mirror or with an endoscope (a flexible viewing tube).

**Treatment**

For most causes, treatment involves resting the voice by not speaking or singing. Drinking extra fluids helps too. If a person smokes or chews tobacco, quitting helps to cure or relieve the laryngitis. If reflux laryngitis is diagnosed, treatment is the same as that for gastroesophageal reflux. Such treatment includes the following:

- Changing the diet
- Limiting or eliminating certain foods (including fatty foods) or beverages (such as caffeinated beverages and alcohol) that make reflux worse
- Avoiding food or fluids several hours before bedtime
- Elevating the head of the bed while sleeping
- Taking drugs that reduce levels of acid production in the stomach, such as proton pump inhibitors (for example, omeprazole or lansoprazole) and H₂ blockers (for example, ranitidine).