#### Nodules, Polyps, and Cysts

The term vocal cord lesion (physicians call them vocal "fold" lesions) refers to a group of noncancerous (benign), abnormal growths (lesions) within or along the covering of the vocal cord. Vocal cord lesions are one of the most common causes of voice problems and are generally seen in three forms; nodules, polyps, and cysts.

# Vocal Cord Nodules (also called Singer's Nodes, Screamer's Nodes)

Vocal cord nodules are also known as "calluses of the vocal fold." They appear on both sides of the vocal cords, typically at the midpoint, and directly face each other. Like other calluses, these lesions often diminish or disappear when overuse of the area is stopped.

## Vocal Cord Polyp

A vocal cord polyp typically occurs only on one side of the vocal cord and can occur in a variety of shapes and sizes. Depending upon the nature of the polyp, it can cause a wide range of voice disturbances.

# Vocal Cord Cyst

A vocal cord cyst is a firm mass of tissue contained within a membrane (sac). The cyst can be located near the surface of the vocal cord or deeper, near the ligament of the vocal cord. As with vocal cord polyps and nodules, the size and location of vocal cord cysts affect the degree of disruption of vocal cord vibration and subsequently the severity of hoarseness or other

voice problem. Surgery followed by voice therapy is the most commonly recommended treatment for vocal cord cysts that significantly alter and/or limit voice.

#### Reactive Vocal Cord Lesion

A reactive vocal cord lesion is a mass located opposite an existing vocal cord lesion, such as a vocal cord cyst or polyp. This type of lesion is thought to develop from trauma or repeated injury caused by the lesion on the opposite vocal cord. A reactive vocal cord lesion will usually decrease or disappear with voice rest and therapy.

### What Are The Causes Of Benign Vocal Cord Lesions?

The exact cause or causes of benign vocal cord lesions is not known. Lesions are thought to arise following "heavy" or traumatic use of the voice, including voice misuse such as speaking in an improper pitch, speaking excessively, screaming or yelling, or using the voice excessively while sick.

# What Are The Symptoms Of Benign Vocal Cord Lesions?

A change in voice quality and persistent hoarseness are often the first warning signs of a vocal cord lesion. Other symptoms can include:

- Vocal fatigue
- Unreliable voice
- Delayed voice initiation
- Low, gravelly voice
- Low pitch
- Voice breaks in first passages of sentences

- Airy or breathy voice
- Inability to sing in high, soft voice
- Increased effort to speak or sing
- Hoarse and rough voice quality
- Frequent throat clearing
- Extra force needed for voice
- Voice "hard to find"

When a vocal cord lesion is present, symptoms may increase or decrease in degree, but will persist and do not go away on their own.

## How Is The Diagnosis Of A Benign Vocal Cord Lesion Made?

Diagnosis begins with a complete history of the voice problem and an evaluation of speaking method. The otolaryngologist will perform a careful examination of the vocal cords, typically using rigid laryngoscopy with a stroboscopic light source. In this procedure, a telescope-tube is passed through the patient's mouth that allows the examiner to view the voice box (images are often recorded on video). The stroboscopic light source allows the examiner to assess vocal fold vibration. Sometimes a second exam will follow a trial of voice rest to allow the otolaryngologist an opportunity to assess changes in the vocal cord lesion.

Other associated medical problems can contribute to voice problems, such as: reflux, allergies, medication's side effects, and hormonal imbalances. An evaluation of these conditions is an important diagnostic factor.

# How Are Benign Vocal Cord Lesions Treated?

The most common treatment options for benign vocal cord lesions include: voice rest, voice therapy, singing voice therapy, and phonomicrosurgery, a type of surgery involving the use of microsurgical techniques and instruments to treat abnormalities on the vocal cord.

Treatment options can vary according to the degree of voice limitation and the exact voice demands of the patient. For example, if a professional singer develops benign vocal cord lesions and undergoes voice therapy, which improves speaking but not singing voice, then surgery might be considered to restore singing voice. Successful and appropriate treatment is highly individual and includes consideration of the patient's vocal needs and the clinical judgment of the otolaryngologist.