

## Attention Staff:

May is **Better Hearing and Speech Month**. How does this concern you?

Did you know that teachers and secretaries are two of the top ten occupations in which voice disorders are most likely to occur (Herrington-Hall, 1988)?

Take a moment to think about how often you use your voice each day. Think about how strongly it is linked to your self-concept. You know what your voice feels like and sounds like. Your voice conveys emotion, attitude, and how you feel physically (e.g., cold, crying). What would happen if you developed a voice disorder? Please take the time to read the following information on voice disorders and what you can do to prevent them.

## What is a voice disorder?

A voice disorder is said to exist when the quality, pitch, and loudness differ from the voices of others of similar age, gender, cultural background, and geographic location.

A voice disorder exists when the structure and/or function of the larynx (vocal folds) no longer meets the voicing requirements established for it by its owner.

## What are the symptoms of voice disorders?

There are nine primary symptoms of voice disorders:

1. **Hoarseness** - reflects irregular vibration of the vocal folds; voice sounds "raspy" or "rough"

2. **Vocal Fatigue** - feeling tired after prolonged talking; continued talking takes great effort; often co-occurs with hoarseness
3. **Breathy Voice** - unable to say complete sentences without running out of air; difficulty being heard
4. **Reduced Phonational Range** - usually associated with singers who report difficulty producing notes that previously presented no problem; tiredness & soreness in throat
5. **Aphonia** - absence of voice; usually have to speak in whisper; great deal of effort required to speak
6. **Pitch Breaks** - periodic squeakiness; voice cracks; voice seems out of control; patient reports never knowing what sound will come out

7. **Strain/Struggle Voice** - difficult to talk; inability to get voicing started or to maintain voice; it is a strain to talk; patients report feeling tension while speaking and become fatigued from speaking due to effort involved
8. **Tremor** - voice is wobbly or shaky; unable to produce a steady, sustained sound
9. **Pain** - pain in the vocal fold area can be unilateral or bilateral and can even radiate to the upper chest

## What are some common voice disorders?

Some of the most common voice disorders are vocal fold edema, vocal nodules, vocal polyps, contact ulcers, and laryngeal carcinoma.

### Vocal Fold Edema (aka laryngitis)

- \* Etiology - viral or bacterial infection, allergic reactions, and/or long standing laryngeal mucosal inflammation, viscous mucus, and vocal fold thickening.
- \* Symptoms - voice quality is mild to severely dysphonic, laryngeal fatigue, non-productive cough, non-productive throat clearing, lowered pitch and phonation breaks, aphonia
- \* Treatment - hydration, medication, rest, identification and reduction of vocal abuses, and voice therapy in case of severe and chronic laryngitis

**Vocal Nodules** - look like white or yellow pinpoint bumps of vocal folds

- \* Etiology - vocal abuse, sudden onset, can be a chronic condition
- \* Symptoms - breathiness, tension, pitch breaks, intermittent aphonia, diplophonia
- \* Treatment - Voice counseling, voice therapy, surgery (if absolutely necessary, but can cause scar tissue which can lead to more vocal nodules)

**Vocal Polyps** - clear, fluid filled bubbles of vocal folds

- \* Etiology - airborne irritants (e.g., smoke, toxic fumes), medications, some cases are unknown
- \* Symptoms - diplophonia, breathiness, low pitch, intermittent aphonia, hoarseness, wet sounding voice
- \* Treatment - surgery (a must) followed by voice therapy, vocal rest

## Contact Ulcers

- \* Etiology - Associated with upper gastrointestinal disorders and reflux
- \* Symptoms - pain in posterior laryngeal area when vocal folds move to close (e.g., swallowing, speaking), breathiness, low pitch, intermittent aphonia
- \* Treatment - Voice therapy, medically treated but surgery not recommended

## Laryngeal Carcinoma - cancer of the larynx (vocal folds)

- Etiology - correlated to inhalation of pollutants, and a variety of suspected carcinogens (e.g., smoke)
- Symptoms - breathiness, pitch change, intermittent aphonia, hoarseness
- \* Treatment - Chemotherapy, radiation, surgery (drastic = laryngectomy), voice therapy as part of rehabilitation

## What is vocal hygiene?

Just as we take time to care for our bodies, we should take time to care for our vocal folds. Good vocal hygiene generally includes the following techniques:

1. Hydrate your vocal folds by increasing your fluid intake (especially water).
2. Eliminate throat clearing/coughing (when you cough your vocal folds slam together at 70 miles per hour!). Substitute a "sniff-swallow" instead.
3. Reduce nonessential talking.
4. Reduce talking/singing in loud background noise.
5. Eliminate (or at least reduce) alcohol intake and smoking.
6. Restrict medications that dry out the mouth, throat, and larynx.

7. Restrict aspirin use during loud talking periods.
8. Increase the amount of sleep that you get.
9. Restrict talking/vocal performance during menstruation and/or times of throat infection.
10. Restrict use of loud voice in windy, cold, out-of-door areas.
11. Eliminate or reduce caffeine intake.

## Do I demonstrate vocal abuse?

Everyone demonstrates some form(s) of vocal abuse. Vocal abuse includes but is not limited to screaming or yelling, prolonged talking, throat clearing or coughing, singing in your car/shower, grunting while playing sports, smoking or exposure to second hand smoke, consuming alcohol, and excessive whispering.

## What can I do to reduce vocal abuse?

It is important to reduce vocal abuse as consistent vocal abuse can lead to voice disorders! Demonstrating good vocal hygiene is important in reducing vocal abuse. Other things that you can do include:

1. Use of a sound amplification systems while teaching/talking to large groups
2. Use of a confidential tone rather than whispering
3. Try to be within three feet of your listener when speaking
4. Build periods of vocal rest into your day (e.g., no singing in the car/shower, no speaking while students are at specials, etc.)
5. Identify the vocal abuses you demonstrate throughout the day and chart them so that you know how frequently they occur. Involve your students by having them count the number of times you clear your throat or raise your voice each day.

## Where can I get additional information on voice disorders?

For additional information on voice disorders, please see your school's speech-language pathologist. You can also obtain information online.

[Speakingofspeech.com](http://Speakingofspeech.com) and [slpsite.com](http://slpsite.com) are excellent sources of information on speech & language disorders and have many links to pages about voice disorders.

The aforementioned information was taken from:

Blood, G. (2000). Lecture notes from CMDIS 541, Voice Disorders at the Pennsylvania State University

McFarlane, S., & Watterson, T. (1990). Vocal nodules: Endoscopic study of their variations and treatment. Seminars in Speech and Language, 11, 47-56.

Photographs are from <http://www.upmc.edu/upmcvoice/Multimedia.htm>



Pictured above are normal, healthy vocal folds.

*Elizabeth Clark, M.S., CCC-SLP*



Pictured above are the vocal folds of a person with laryngeal carcinoma.

*Elizabeth Clark, M.S., CCC-SLP*



Pictured above are the vocal folds of a person with vocal nodules.



Pictured above are the vocal folds of a person with vocal polyps.