



Rancho Los Amigos

Post-Polio

Support Group

Newsletter - August 2010

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“Our voice resonates with life. Because this is so, it can touch the lives of others. The caring and compassion imbued in your voice finds passage to the listener’s soul, striking his or her heart and causing it to sing out; the human voice summons something profound from deep within, and can even compel a person into action.”

Daisaku Ikeda, Buddhist Philosopher

What Your Voice is Saying About You: Vocal Changes and the Late Effects of Polio

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Mary Spremulli is a speech-language pathologist in private practice, a clinical consultant with Passy-Muir, Inc. and a national seminar leader on medical topics. She addresses how voice changes may relate to polio survivors, a topic raised frequently by PHI readers.

Why does my voice sound this way?

Over the last few years, a number of individuals with a history of polio 40 or 50 years ago have been referred to my speech pathology practice complaining of

(Continued on page 2)

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The information presented at our meetings and/or contained in this newsletter is solely for information. It is not an endorsement of any product, medication, or individual.

(Continued from page 1)

changes in their vocal function. They were often young children at the onset of their polio, so some of them are unsure if their original diagnosis was bulbar or spinal.

Now, many of them in their 60s or 70s report voice problems or changes, such as: “my voice is weaker,” “my voice gives out by the end of the day,” “my voice is scratchy and hoarse.” Not infrequently, these changes in voice are accompanied by changes in swallowing function with associated complaints of increased “choking” when eating or drinking.

Is this related to having had polio?

In many of these instances, the change in voice can represent further weakening of the respiratory and phonatory (voice production) system. In particular, if individuals had initial bulbar polio symptoms, they have likely already spent a lifetime using some compensatory respiratory and oral-pharyngeal muscle function. This muscle function may now be further weakened due to further muscle degeneration, age-related changes, muscle disuse atrophy or vocal misuse. Separating out the causes and contributors to current voice problems can be challenging for the voice therapist or otolaryngologist.

Why should I see an Ear, Nose, and Throat Doctor (ENT)?

Any sudden change in voice function, or any change, such as hoarseness, that persists for more than a few weeks warrants an examination by an ENT. The ENT will conduct a direct visualization of your vocal folds and larynx (voice box) by passing a small scope with a camera through your nose and making sure there are no growths, such as nodules (calluses that form from misuse) or polyps (a usually benign, fluid-filled outgrowth of tissue that also may be from misuse) or tissue changes suggesting a more serious diagnosis.

A direct visualization can also confirm the contribution of acid reflux, in particular stomach acid that escapes from the top muscle of the esophagus (food pipe). This type of reflux, is also referred to as laryngopharyngeal reflux or “silent reflux,” and it is often a factor causing hoarseness or other voice changes.

Patients are often surprised when the ENT prescribes anti-acid medication for

(Continued on page 3)

(Continued from page 2)

their voice changes, not realizing that our anatomic design places the opening of the esophagus and the opening to the windpipe dangerously close, and the vocal folds often receive the insult of acid which may escape from the top muscle of the esophagus.

What is a voice evaluation?

Following an ENT examination, patients are typically referred to a speech-language pathologist (voice therapist), who may conduct further instrumental examination using videostroboscopy. In videostroboscopy, a rigid scope with a camera attachment is placed through the mouth to visualize the larynx and evaluate the dynamic movement of the vocal folds.

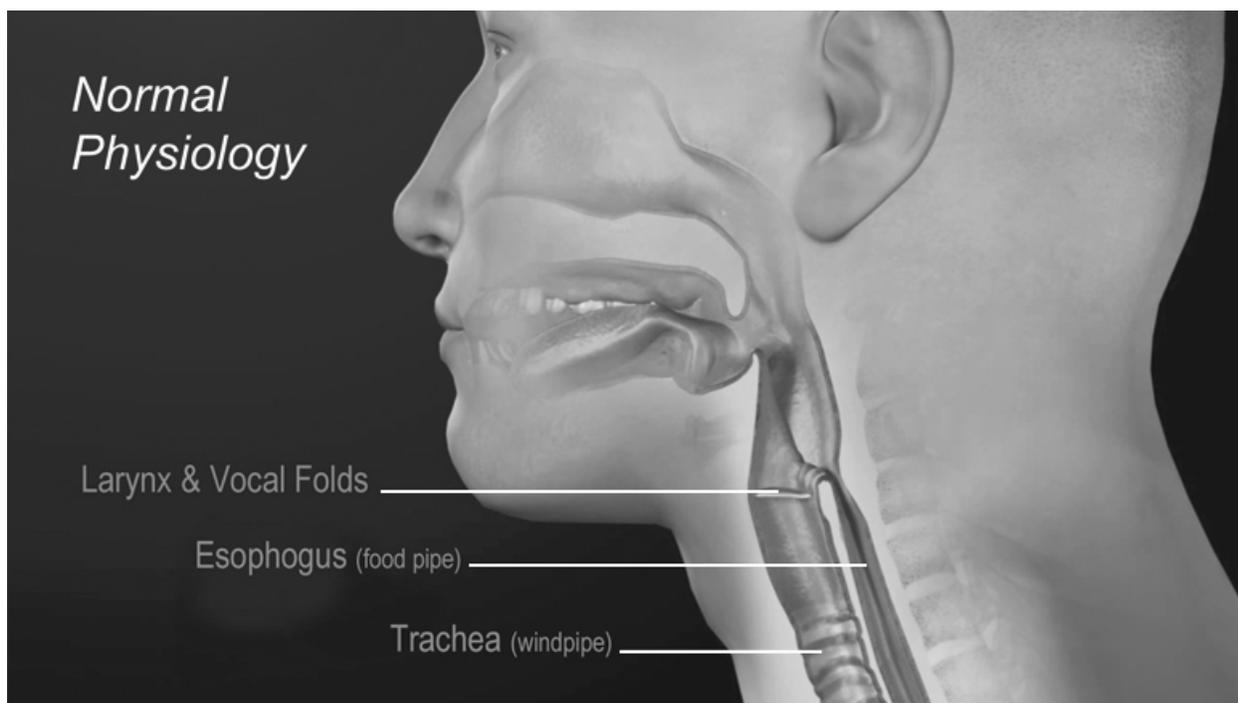


Image courtesy of Passy-Muir, Inc., Irvine, CA.

The voice therapist will also perform a clinical evaluation of vocal function. This exam involves taking a thorough history that includes questions about how you use your voice throughout the day, medication use that may be affecting your voice – particularly in-halers and steroids – as well as any surgery you may have had on your throat or any tubes placed down your throat during surgery or in an emergency to maintain ventilation. Measurements of pitch, vocal intensity and

(Continued on page 4)

(Continued from page 3)

voice duration are obtained, as well as observations of your respiratory patterns.

In addition to this history and perceptual data, the voice therapist will observe how you use your breath support and voice during conversational speech. Behaviors that can harm the vocal folds, such as frequent throat clearing or coughing, will also be noted as these common habits over time can injure the vocal folds. You will likely also be asked about hearing, since a decline in hearing may cause difficulty in your ability to accurately judge vocal intensity in your own voice or others.

Although not directly related to voice production, the vocal folds' position at the opening of the windpipe also makes them gatekeepers against foreign bodies entering into the upper airway. Therefore, you will be asked about any problems you may be having with choking or coughing when eating or drinking. These symptoms may also be an indication that the sensation of the larynx or function of the vocal folds have declined in some way, permitting food or liquid to now enter your upper airway. A separate swallowing evaluation may be recommended.

Can voice therapy help?

Once an accurate diagnosis of your voice problem is made, treatment will likely be a combination of medical and therapeutic management. Problems requiring further medical treatment will be handled by the ENT. These may include medications to treat acid reflux, thin/thick mucus/secretions or to reduce post-nasal drainage. More serious problems, such as polyps, may require surgery.

The voice therapist will focus on vocal hygiene, which includes modification of environmental factors that may be serving as irritants to the larynx and vocal folds, instruction in methods to eliminate throat clearing and other abusive habits, and encouraging improved hydration through water intake and/or steam.

Then, much like a music teacher, the remainder of voice treatment will focus on improving functional use of your voice instrument. In the case of someone with poor diaphragmatic breathing and respiratory muscle use due to polio and post-polio symptoms, a modified respiratory muscle training program may be recommended.

(Continued on page 5)

(Continued from page 4)

Relaxation techniques and methods to reduce muscle straining in the neck muscles and larynx may be demonstrated. Use of optimal pitch and posture and techniques for improving loudness without straining will all be emphasized. Voice treatment may be offered for six to eight visits, with development of a home exercise program to encourage strengthening of the system, preservation of muscle function and maintenance of any improvement achieved. For individuals with voice changes from PPS, conservation techniques, including use of personal voice amplification devices may also be beneficial.

Our larynx is a rather amazing organ. Our ability to use its shared functions of breathing, digestion and voice production make it clearly one of our uniquely human gifts. Throughout our lives, our voice mirrors physical growth and other body changes. It conveys our physical and emotional health, and at times, it inspires poetry.

NOTE: Mary Spremulli, MA, CCC-SLP, is the author of Voice Aerobics DVD, a three-part voice and exercise workout, Voice Aerobics Grand Slam™ and Voice Aerobics CD Songbirds™, speech and vocal exercise set to music, available at (www.VoiceAerobicsDVD.com). A speech-language pathologist in private practice, she leads national seminars on medical topics and serves as a clinical consultant with Passy-Muir, Inc. (www.passy-muir.com), manufacturer of tracheostomy and ventilator swallowing and speaking valves.

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Have You Returned Your Medical Coverage Questionnaire?

In last month's newsletter, mailed by the Post-Polio Support Group of Orange County and included in several other newsletters, there was an important questionnaire. The questionnaire asked about the type of medical coverage you have, HMO, PPO, etc., and asked how satisfied you are with your doctor's knowledge of post-polio and related medical issues.

This is part of a joint effort of the Post-Polio Support Group of Orange County, the Polio Survivors Association, and several other polio groups to improve the medical community's awareness of post-polio. Please return it to us.

Scheduled Meetings:

Post-Polio Support Group of Orange County

Saturday, August 14, 2010 - The Ability Center on Car and Van Conversions, and the Dale MacIntosh Independent Living Center on Low Cost Housing for the Disabled.

Saturday, September 11, 2010 - Kathleen Shanfield, OTR, MS.ATP, will talk about home modifications that can be done to make life easier for us.

Saturday, October 9, 2010 - Dr. Rubenstein, an associate of Dr. Shanfield who will talk about upper body involvement in PPS.

For additional information, please see www.ppsupportoc.org or call:

Marte Fuller 562-697-0507

Marilyn Andrews 714-839-3121

Rancho Los Amigos Post-Polio Support Group

Saturday, August 28, 2010 - Polio documentary - “The Final Inch”

Saturday, September 25, 2010 - Gadgets, Coping Skills, and Fun - Bring any small gadgets or tools that make your life easier. Think about sharing your best coping skills. And prepare to have some fun.

Saturday, October 23, 2010 - “Energy Efficiency” - Southern California Edison

For additional information, please see www.RanchoPPSG.com or call:

Diane Ekonen 562-861-8128

Richard Daggett 562-862-4508

Have you read Richard’s book yet? See what others are saying. Please go to Amazon.com and read the reviews. You can purchase the book from Amazon and Barnes & Noble, or you can purchase it directly from the Polio Survivors Association. All proceeds benefit the Polio Survivors Association. This will also help support the Rancho Los Amigos Post-Polio Support Group. Go to www.polioassociation.org for more information