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## *Training for a lifetime of singing!*

*Or, no one can avoid getting older, but everyone can prevent premature vocal aging by maintaining vocal and physical conditioning*

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Four years ago I presented a session entitled, "The Aging Voice – We've All Got One! (Or will someday, if we live long enough!)" In the ensuing four years, not only has my own voice aged, but researchers, choral directors, and a variety of voice teachers have realized that the entire population of the United States is aging and people want to sing long into their "golden years!"

Much is being done to expand singing opportunities for our ever-aging population and new choirs are being founded in retirement communities at an accelerated rate. The chorus has become a safe, comfortable environment for residents to begin or to perpetuate singing.

A number of studies by scientists from several different countries have documented physiological benefits of choral singing. Among these are increased respiratory function, improved overall health, heightened immune system, improved brain function helping to compensate for the loss of brain cells associated with aging, increased confidence, more energy, and better posture and balance. Many people experience the contribution that choral singing makes to their lives simply as a sense of increased joy and overall well-being. (Meredith, 2).

When I began my re-write of this topic at the request of the current Washington ACDA board, I had no idea of the shift in thinking regarding extending and improving one's vocal longevity. I'm so excited about the attention being paid to the importance of providing choral opportunities for the growing post-retirement population. I am even more excited to read and apply the principles for maintaining vocal health for singers who are living and singing past what up until recently might have been called their "prime" not only to my own singing, but also to the choral rehearsals I conduct and voice lessons I teach.

Four years ago my opening statement was "All singers' voices will change due to age-related factors." The laundry list of factors and reasons for age-related vocal changes hasn't changed, however. The "prescription" for how to manage and rise above some of these changes has become more systematic and directors who work with primarily "seniors" have compiled extensive data to

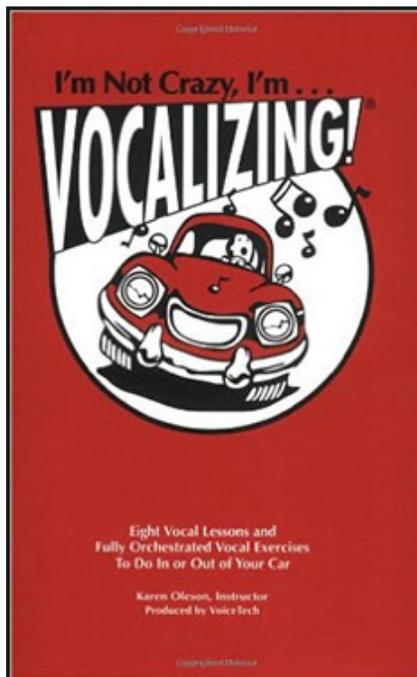
support the position that quality singing can continue long past previously assumed ages.

At the time, the protocol for caring for and maintaining one's aging voice was limited to exercises touted by only a few vocal pedagogues. Today it is easy to find books on this very topic including long lists of exercises and prescribed protocols. With the huge growth of the aging U.S. population, coupled with the explosion of more and more retirement communities and senior living facilities, and the likelihood for large populations of post age-55 year olds to live together in close proximity, the opportunities for choirs comprised of these "mature" voices is expanding daily.

Everything I have read and researched in preparing today's session supports the following premise. Maintaining one's vocal health and vitality is directly connected to maintaining one's physical health and stamina. If one becomes winded walking up a flight of stairs at age 45, it is unlikely that person will sing with optimal breath management at age 60.

Many of the so-called signs of aging are actually signs of disuse! With regards to voices, nowhere have I read just how old "old" is!

As vocal professionals, we need to "train for a lifetime." This requires our body be trained as well as our voice since our body IS our instrument. Since we will serve as examples for our choristers, whether they are younger or older than us, we have a responsibility to be the best example possible of vocal health and conditioning. How many of us have an established vocal "warm up" regimen we do daily? I have found that my commute to work is my best time for my vocal warm-up.



Years ago I purchased an exercise CD by Seattle voice teacher Karen Oleson entitled, "I'm Not Crazy, I'm Vocalizing." Whenever I've gotten a new car, the CD is the first thing I move from the old car to the new. I've modified the exercises over the years to better suit my own vocal needs, but the regimen of daily exercise has become absolutely necessary and I rarely skip a day unless I have total laryngitis.

It is essential the choral conductors learn to use their own voices well, thereby forming a personal frame of reference for vocal matter. Posture, quality and tone of voice, use of language, and the shape

and timing of choral conducting gestures should each exemplify and encourage good vocal habits. (Smith, Sataloff, 258).

Advancing age inevitably produces changes in the larynx as well as in related systems that impinge on voice production. Vocal patterns are affected by deterioration of neuromuscular control, sensory abilities, and energy levels. Illness and disease (e.g., pulmonary, neurological, cardiovascular) as well as the effects of medication and psychological states also limit vocal abilities. Generally speaking, the voice is a reflection of one's overall level of health and vigor. (Andrews, 289).

Besides such central neurological disease-related conditions (e.g., stroke, Parkinson's, essential tremor, Alzheimer's) conditions that cause benign vocal fold lesions (e.g., Reinke's edema, benign and dysplastic epithelial lesions), inflammatory disorders can be a result of medication and conditions such as sleep apnea, GERD (reflux), and menopause/hormone therapy. (Andrews, 289).

While the majority of dramatic changes in elderly voices are likely the result of age-related disease processes, there are perceptible changes that occur as a result of the aging process itself. These can include:

Respiratory capacity and function changes with age and contributes to a general decrease in vocal power. Reduced muscle tone, all over the body, and posture is affected. The loss of muscle tone in the abdominal wall, in body alignment (e.g., posture), loss of control in the laryngeal muscles affects strength, control, and resonance. (Andrews, 289)

Aging causes people to speak and sing much softer, due to a lack of flexibility in the breathing mechanism and the cartilage of the larynx. (Seelig, *The Perfect Blend*, 133). According to Leslie Guinn of the University of Michigan, "the extra effort often results in a slow and wide vibrato when singing."

There is a decrease in pitch flexibility and changes in habitual pitch levels. Pitch changes with aging. Women's voices may lower, male voices may rise. A history of smoking affects the aging voice substantially. (Andrews, 289-291) Hormone replacement therapy should be carefully monitored and preparations containing androgens avoided so as to not lower the female voice. (Sataloff, 128).

Increased rigidity of the cartilages (ossification) and joints and loss of muscle tone.

Laryngeal atrophy, edema, and increased presence of deep, narrow furrows or grooves in the vocal fold (vocal fold sulci). Changes in the vocal folds may include edema and thickening of the superficial layer of the lamina propria [the thin vascular layer of connective tissue beneath the epithelium] (females),

atrophy and loosening of the elastic fibers of the intermediate layer of the lamina propria causes thinning (males).

Atrophy of the thyroarytenoid and vocalis muscle fibers. Limitation of arytenoids movement can cause poor posterior glottis closure. (breathy tone)

Atrophy of the mucosa and changes in mucous secretions as well as reduction in amount of nerve endings. (Andrews, 289-291). The key here is to hydrate, hydrate, and hydrate some more. (Linville 221, Duvic).

Voice problems may occur when patients attempt to compensate for the changes they are experiencing and adopt inappropriate strategies, leading to vocal misuse. (Andrews 291)

"Wide vibratos are often caused by singing too heavily." (Guinn) Guinn suggests singing an [a] with a somewhat breathy, straight tone, medium volume. (Seelig, Blend, 133).

Life stresses and anxiety may also contribute to the development of hyperfunctional patterns. (Andrews, 289-291).

General physical condition, as well as previous vocal training may help preserve vocal vigor into old age.

Maintain good vocal health throughout your life by doing the things you already know. Start with the big muscle groups to get in shape, not the smallest. (Seelig, The Perfect Rehearsal, 84).

According to Pamela S. Philips, DMA,

The wobble is a result of a lack of muscle toning, specifically in the singing muscles. Working out your singing muscles on a regular basis can help keep that wobble at bay. Getting lax with your breath is another common factor that may contribute to a wobble in your singing. If your breath backs off, your voice is more likely to flounder or wobble. A steady flow of air helps keep the rate of the vibrato steady. You can also continue working on exercises that move back and forth from straight tone to vibrato, to help maintain your ability to support the vibrato. (Philips, 192).

As a singer's respiratory potential diminishes, it is essential that he or she remain as close as possible to optimum respiratory conditioning. If a singer can't walk up a few flights of stairs without becoming winded it is likely they also lack the respiratory and abdominal conditioning to successfully sing throughout a recital or choral concert. Regular vocal technical training can

eliminate the wobble and improve agility, accuracy, and endurance in the older singer just as it can in the beginner. (Sataloff, 128, 129).

Timothy Seelig, who admits to owning his own aging voice, suggests 12-15 minutes of vocal exercises every day, paying close attention to proper breathing at all times. (The Perfect Blend 133).

The great vocal pedagogue, Richard Miller, in his book *Solutions for Singers* refers to maintaining good vocal [singing] condition, by being attentive to a daily technical regimen. "The singer who does not warm up (...prior to a day of teaching) is committing vocal suicide." (Seelig, 185).

Dr. Gwenelwyn Leonard, professor emeritus of Linfield College in McMinnville, OR, has done extensive research on the aging voice and recommends specific vocal function exercises for twenty minutes, twice a day for three months as a means to rehabilitate a voice affected by the aging process. She advocates for whole body exercise as a means to maintaining good vocal health.

Vocal..."longevity and continued attention to systematic technical work go hand in hand. Unless health problems surface, a well-trained singer can look forward to a long performance life through uninterrupted exercising of the vocal instrument." (Miller, 185)

#### Recommended vocal warm-ups and exercises

The lists of recommended exercises from the new resources referenced in this presentation (\* see bibliography) are very similar to those from four years ago. Most of us have a wealth of exercises we employ with our choirs than can be used with all ages of singers. The primary components of a well-structured vocal conditioning routine for all singers should include posture/balanced body alignment, breathing/breath management, tone/resonance, and diction/articulation – in that order. For older singers a longer warm-up is even more important, with 20 minutes a good target length. (Meredith, 30).

Select your favorite posture/physical readiness exercises – or consider some of these suggested exercises (from Meredith, 32):

Stand with your feet about shoulder width apart and weight evenly balanced. Rock forward and back on both feet until you are right over your arches. Stretch gently, above, across and behind the body. Roll shoulders forward and back.

Monkey hang and stretch – with knees relaxed, bend gently from the waist, arms hanging down. Let your curved spine gently stretch and relax. Do not bounce. Raise slowly, unwinding from the waist; your head coming up last. Continue on up, stretching overhead with both arms. Separate your arms slightly until they form a "V" overhead. Let your head just "float" like a balloon

on a string. Notice the space you have around your rib cage as you enjoy a few deep, relaxed breaths. Seek to maintain feeling of spacious freedom as you relax your arms naturally to your sides without collapsing.

If our singers see a tall, buoyant singer's posture modeled by us, they will align themselves similarly. If they hear us model a simple, well-supported vocal example, they are likely to imitate a quality product. We must be consistent in modeling what we want our singers to produce. (Smith, Sataloff, 262)

Select your favorite breath management exercise – or consider some of the suggested exercises (from Meredith, 32):

- Exhale on "sh" as quickly and completely as possible, trying to get rid of as much air as quickly as you can so that the next breath is deeper and fuller.
- Count out loud: breathe in 4 cumulative sips of air. With each sip, feel a little more expansion around the rib/abdominal area. Exhale to 4 counts (counting out loud). Release any remaining air on a fast "sh". Repeat; counting to 8, 12, 16, 20, etc. Count as high as you can while maintaining a free speaking tone.
- Activate your abdominal muscles: Rest 1 hand on your abs while exhaling on 5 short puffs of air on "sh sh sh sh sh". Notice movement around the waistline with each "sh." Repeat this same pattern on "M M M M M" at several pitch levels.

Select your favorite tone/diction exercises – or consider some of these suggested exercises (from Meredith, 33):

Including exercises that demand a variety of singing styles such as legato, staccato, martellato, and messa de voce help singers develop muscle coordination, lyric release of tone, increase vocal agility and stamina, eliminate breathiness, encourage a buoyancy of breath and tone and strengthen the older singer's coordination. To sing legato, one must coordinate breath, pitch, and vowel perfectly. Exercises using glides, slides, and slurs are good preparation for legato singing. Lip trills, humming, or the [ŋ] have proven useful for developing muscle coordination and tonal lyricism. Staccato singing is a skill requiring a secure connection to breath support.

Martellato requires one first learn to sing an even, steady legato and then apply pulsation, articulating the notes with slight points of emphasis. These may all increase vocal stamina lost through the aging process.

Messa di voce exercises (sustaining long tones and applying gradual crescendo and decrescendo) indicates effective breath control and management of the muscles of singing. For older singers, it can serve to strengthen vocal skill. (Smith, Sataloff, 266, 267).

The list of exercises included in the 2010 session are still applicable and provide a good model for vocal health for the aging voice. Based on my most recent research, the process is best reordered to align with current research. Also in line with current research is the importance to “cool down” after each singing session. This is important for all ages of voices and something I will be adding to my own choir rehearsals as well as my own vocal health regimen.

- Air flow rate
- Blow out all your air as you say the word “who” prolonging it as long as you can. (Andrews, 530).
- Employ the Farinelli breath exercise: inhale expanding the ribcage for 4 counts, suspend the breath 4 counts, and exhale 4 counts without dropping the sternum. Continue with five and six counts, etc. (Leonard)
- Prolong the tongue trills on “prrr”, “trrr”, and “hrrr”, with mainly breath and just a little sound. Roll the “r” if you can. Make sure it is relaxed and the tongue is not tense. (Andrews 530) Practice to extend the length of time (5, 10, 15 up to 50 seconds). (Duvic)
- Practice bi-labial trills (lip trills), high to low and back (sol-do-sol or octave intervals as able), starting with one set and adding multiple sets on one breath, maintaining body alignment and breath stability. (Duvic)
- Tone focus (resonance) and range
- Hum gently, gradually letting the sound swell. Begin with an [h] to get the breath going first
- Hum gently on two comfortable pitches
- Start on a middle note and then slide to one higher.
- Start on a middle note and slide to one lower.
- Hum gently on three and then four different pitches.
- Hum a simple melody maintaining a smooth, even humming sound. (Andrews, 530)
- Hum sol-do with lips closed, then sol-do on [a]. (Leonard)
- While humming, slide from your middle note down as far as you can in your range. Smooth out the sound. Then slide from your middle note up as high as you can. Try to increase the number of smooth easy notes you can hum. (Andrews, 530).
- Jaw and tongue freedom

- Drop your mouth open downward as far as you can with ease. Say “ta, ta, ta, ta” while gently feeling the jaw motion with your hand. Breathe out as you say the syllables. Say as many as you can in one breath. Prolong one “ta” for as long as you can without your voice wavering or breaking. Jaw and tongue should be loose. (Andrews, 531).

- Sing “hung-ee-ah” on sol-sol-sol-fa-mi-re-do. (Sopranos start G4 to middle C, up to Eb5 to Ab4. Other voices as appropriate and comfortable.) (Leonard)

- Sing “thah, thah, thah, thah, thah” with a pitched “th” on do-re-mi-re-do, quickly and lightly. (Sopranos start middle C up to Eb5 or higher as comfortable.) (Leonard)

- Practice prolonging or chanting the word “oboe” bouncing your lips well on the “b” sound and lengthening the vowels. Repeat the word gradually increasing and decreasing the loudness. Use an easy onset and easy voicing. (Andrews, 531)

- Using the word “bahm” with gently puffed cheeks and loose lips sing on intervals such as sol-do-sol-do or the descending and ascending arpeggio do-sol-mi-do-mi-sol-do-sol-mi-do. (Duvic)

- Practice relaxed chewing motions. Open mouth well like a cow chewing its cud, Say (or sing) the word “was” repeatedly as you chew, feeling the final sound vibrate your teeth. Use exaggerated lip movement. (Andrews, 531)

- Hum down a five note scale then sing down the five notes on “yum, yum, yum, yum, yum” then sing up the scale. Gradually increase the number of notes you sing up and down the scale to increase your range and breath management. (Andrews and Duvic)

In the past two decades, the paradigm for singing and aging has shifted. People want to sing as long as they can, as well as they can. It is a healthy, necessary activity in the lives of people of all ages. The teaching of singing is evolving to accommodate the reality of aging. The older singer has been given a present and a future, a lifeline for continued participation. Psychologically, singers are learning to envision a broad arc from infancy to old age. Singers are wise to accept the effects of aging gracefully. No one can avoid getting older, but everyone can prevent premature vocal aging by maintaining vocal and physical condition. By establishing good singing habits, remaining physically fit, and setting reasonable goals, singers can ‘stay in the game’ for many decades. (Smith, Sataloff, 302-304).

The important thing is to KEEP SINGING. Sing with your best technique. Utilize the best of the voice building exercises you’ve learned over your career for breath management, onset/muscle equilibrium, resonance/tonal balancing,

agility/flexibility, sostenuto and dynamic control, as well as range extension and stabilization. Keep your entire instrument in shape, active, hydrated, and exercised and, as Sataloff suggests, one might sing “at a better level than expected until very near the end of life...” (Andrews, p. 128).

Sources: (\*Newly added for the 2014 session.)

- Andrews, Moya L. *Manual of Voice Treatment: Pediatrics through Geriatrics*. San Diego, Calif.: Singular Pub. Group, 1995. Print.
- Leonard, Gwenelwyn. "The Aging Voice: Implications and Applications for the Singing Studio." E-mail interview. 8 July 2010.
- Linville, Sue Ellen. *Vocal Aging*. Australia: Singular Thomson Learning, 2001. Print.
- \*Meredith, Victoria. *Sing Better As You Age: A Comprehensive Guide for Adult Choral Musicians*. Santa Barbara Music Publishing, Inc., 2007, Print.
- Miller, Richard. *Solutions for Singers: Tools for Performers and Teachers*. Oxford: Oxford UP, 2004. Print.
- \*Oleson, Karen. *I'm Not Crazy--I'm Vocalizing Lessons and Fully Orchestrated Exercises for Singers*. VoiceTech, 1996. CD.
- Phillips, Pamela S. *Singing for Dummies*. New York: Wiley, 2003. Print.
- Sataloff, Robert Thayer. *Vocal Health and Pedagogy*. San Diego: Singular Pub. Group, 1998. Print.
- Seelig, Timothy. *The Perfect Blend: over 100 Seriously Fun Vocal Warm-ups*. Delaware Water Gap, PA: Shawnee, 2005. Print.
- Seelig, Timothy. *The Perfect Rehearsal: It's a Trip!* Nashville, TN: Shawnee, 2007. Print.
- \*Smith, Brenda, and Robert Thayer. Sataloff. *Choral Pedagogy and the Older Singer*. San Diego, CA: Plural Pub., 2012. Print.