#### **Vocal Education Series**

# Part 8: The Aging Voice

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In this part of the continuing series, we present a general overview on the aging process and how it affects the singing voice.

### The aging process

Several proven and well-documented changes occur in the human body as we age. For example, there is an increased incidence of several chronic diseases. These are usually coronary artery disease, diabetes (non-insulin dependent), and osteoporosis. Concurrent with these general disease tendencies are changes in body composition. Among these we find increased fat mass, a progressive decline in muscle, and a general reduction in bone mineral density. Taken all together, we see a decrease in muscle strength and diminished aerobic capacity. Also, normal wear and tear on the body results in scar tissues, slower healing of injuries, and general aches and pains, especially in the musculoskeletal system. All these things should be of great concern to the aging singer.

#### Wear and tear

If you injure a body part, it is usually a safe bet that it will heal without a problem, provided you are in good general health. But, as time marches on and you grow older, there is increased probability that you will injure more parts of your body. These injuries may heal, but the effect of the trauma is cumulative. With time against you, the older you are, the more chances that a given part of your body will suffer. Applying this process to the vocal chords, for example, you get an interesting picture of the effects of repeated trauma.

Let's say that one day you overuse your voice and it becomes hoarse for a few days. Most probably, this will not be a problem. However, repeat this action many times over many years and the effect begins to become permanent. Nodules or scars may develop on the muscles that are your vocal chords. One or even a few nodules—if they are small enough—would probably not affect anything. But, with time, the effect starts to become noticeable. In fact, misuse of the voice mechanism, certain infections or direct trauma, could develop vocal chord problems at any age. The scars begin to affect the quality and sonority of the voice. In extreme cases, the scars may render the vocal chords useless. Although surgery or other techniques may be used to alleviate or dissipate the symptoms of vocal trauma, the best approach is to always take care of the voice.

#### Loss of muscle tone

Singers should be concerned not only with the vocal chords, which are really only muscles, but with another very important singing muscle: the diaphragm. Other muscles, of course, come into play, but these are the two major ones.

As muscles lose tone, elasticity diminishes. This is why one's vocal range tends to narrow (at both ends, but more at the top where more "stretching" is required) as one ages. Stretching

exercise, like vocalizing up and own the scale in this case, help immensely in slowing down the loss of muscle tone. But the exercises must be done regularly.

The case of the diaphragm is different. This is a large smooth muscle used primarily to exhale. When you inhale, you merely relax the diaphragm and the air just flows in. When you sing, it is constant, even tension (support) on the diaphragm that makes for a smooth tone. A natural vibrato may occur if there is not constant support.

Tremolo and wobble are vocal effects that must be avoided or controlled. Tremolo occurs when, in an attempt to artificially produce support, the pressure is unnatural and you get a very rapid fluctuation in the voice. It is a forced sound and unpleasant to the ear. Wobble, the opposite of tremolo, is what you hear when vocal support is intermittent. The effect is not unlike a recording device that has speed variation problems. You can hear the wobble in many older professional singers, especially in the middle ranges where it is most difficult to maintain support.

The loss of muscle tone with age is unfortunate, but not necessarily terminal. Vocal exercises and stomach muscle training on a continuing basis have been shown to be effective at any age.

## Aerobic capacity

Let's face it, as you get older, you tire more easily. If you are out of breath quicker, you cannot hold notes as purely or as long. The result is either choppy singing and/or shortened phrases. Neither result makes for good singing.

Again, fortunately, regular aerobic conditioning can help your voice immensely. A 20-minute exercise three times a week, where you elevate your heart rate to about 65% of your resting rate, should suffice. Lose out on a week of conditioning and you may need to get back to where you were. The effect is not cumulative for most people.

It's undeniable that we all get older. But that does not mean that we cannot slow the process down. Help your voice by performing regular vocal exercises, aerobic conditioning, and strength training. Eat healthy foods and reduce the intake of fats. Come to think of it, that's not bad advice for taking care of the rest of your body too!