

# Vocal Care & Maintenance for Singers

~ Kathi-Lee Wilson ~

## The Anatomy of Sound

You should think of your voice as a musical instrument. Like any other acoustic instrument, it has:

**A MOTOR** (your breath),

**A VIBRATING ELEMENT** (your vocal folds, aka vocal cords), and...

**A RESONATING CHAMBER** (throat, oral cavity, nasal cavity).

And just as with any other instrument, proper care and handling is required to maintain its optimal tone and longevity. Of course, your voice has fundamental differences compared with any other instrument, most notably is that it is part of you and your physiology. *What affects your general health can impact the quality of your instrument and your ability to perform.*

While singing can be the most simple and natural thing in the world, becoming a great vocalist requires the same dedication, study, practice, and discipline necessary to excel at any musical instrument. It starts with a basic understanding of the structures that comprise the vocal instrument, and the mechanics of producing sound.

## Voice Production

**Voice production begins with your breath.** When you inhale, **THE DIAPHRAGM** — a large, horizontal, DOME-SHAPED muscle below the lungs — lowers, and the lungs expand and fill with air. When you exhale, air is expelled via elastic recoil of the lungs and thoracic cavity, aided by the abdominal muscles.

**THE LARYNX** houses the vocal cords, and as the air rushes through them, the resulting pressure causes them to vibrate hundreds — even thousands — of times per second. The sound this creates is then shaped by your throat, lips, tongue, palate, and jaw to form words and sounds. With healthy individuals, the vocal cords open when we are breathing and close when we are voicing, coughing, or swallowing.

Next to and above the vocal cords are the false vocal cords (ventricular folds). Typically, the false vocal cords don't vibrate when you're voicing, but they may come together if you have muscle tension dysphonia, a fairly common condition where excessive muscle tension occurs with voice production.

## Resonance

Like all acoustic instruments, your voice has its own special chambers for resonating tone. Once a tone is produced by the vibrating vocal cords, it resonates in and through these chambers, including the throat, mouth, and nasal cavity. While the area above your nasal cavity (the head) and your chest don't literally resonate, singers and vocal coaches will often refer to them as resonant chambers.

These different chambers are often described as having different colors or timbres, from dark (chest) to bright (head/nasal). The greater command you have of all the colors in the resonant spectrum, the greater your dynamic range of tones, notes, volumes, and sounds.

**Head voice:** Softer singing primarily occurs in the head voice (head resonance), which feels as if the sound you were producing is resonating in your head.

**Nasal (mask) resonance:** Nasal resonance is bright and is generally part of any well-balanced tone. Combined with the mouth, this can create a resonance that is placed forward, or in the mask (the front part of your face).

**Chest resonance:** While not precisely resonating in the chest, the sensation is that this tone emanates from below your throat, providing a rich, dark, deeper tone with power and warmth.

## Voice Registers and Categories

In regard to singing, vocal register generally refers to a particular part of the vocal range, such as the falsetto, upper, middle, or lower registers.

There are seven major voice categories, with various sub-types and classes, recognized across the standard voice classification systems. Women are divided into soprano, mezzo-soprano, and contralto, and men into countertenor, tenor, baritone, and bass.

**Soprano:** The highest female voice, the typical soprano lies between middle C (C4) and high C (C6). The low extreme for sopranos is B3, and several standard soprano roles call for D6 on the high end.

**Mezzo-soprano:** The mezzo-soprano is the middle-range — and most common — female voice type. The mezzo-soprano voice lies between, and overlaps, the soprano and contralto voices. The typical mezzo-soprano range is between A3 (the A below middle C) and A5 (two octaves up).

**Contralto:** The contralto voice is the lowest (and rarest) female voice, with a range between F3 (the F below middle C) to F5.

**Countertenor:** The highest male voice, countertenors generally sing in the falsetto register (sometimes using their modal, or speaking, register for the lowest notes). The countertenor ranges from about G3 to E5 or F5.

**Tenor:** The tenor is the highest male voice using the modal register. The typical tenor voice lies between C3 (one octave below middle C) to C5, though some tenors can sing up to the second F above middle C.

**Baritone:** The most common type of male voice, the baritone range lies between the bass and tenor ranges, overlapping them both. The typical baritone range is from F2 to F4 (the F above middle C).

**Bass:** The lowest male voice, the bass voice lies between E2 to E4 (the E above middle C).

## Vocal Care

Maybe it's true that some elements of being a great vocalist come by way of a blessed, genetic gift, but most truly inspiring vocalists put enormous time and energy into their craft — and continue to do so throughout their careers when they want to endure for the long haul.

You might not think of a vocalist as a world-class athlete, but just as an athlete will train, focus, and warm up for an event, a vocalist should consider singing as an endeavor that requires the same preparation and dedication. And while different genres and styles of singing require different approaches to the craft, **proper technique and a knowledge of the vocal process will translate across all styles and genres.**

## Vocal Lessons

**“The singing voice carries with it an inherent risk, in that you only get one instrument.”**

If you ruin a clarinet or a guitar, you can buy another one, but you can't get another voice. You don't get another chance. There are no vocal cord transplants!

Taking voice lessons and studying with a vocal coach will help you learn how to sing properly, and preserve your “one instrument. **Vocal lessons are worth investing in.**

**Biblical Perspective:** When King David planned the returning of the Ark of the Covenant to Jerusalem, he appointed the Levites to SING JOYFUL SONGS ACCOMPANIED BY INSTRUMENTS.

Even back in those days there were those who were considered to be skilled in singing:

*“Kenaniah the head Levite was in charge of the singing; that was his responsibility because he was skillful at it.”* I CHRONICLES 15:22.

God has graciously given to us our unique human instruments, and as with any instrument, we should learn to use it to its full potential – and to use our instruments (our VOICES) to honor the King!

## Warming Up

If you sing without warming up, you can encounter all sorts of problems. Warming up is very much about relaxing and preparing the muscles and mechanisms for what they are about to do, and it is also about getting your mind and body into the flow of breathing correctly. (Think about running a marathon without warming up and stretching your muscles!)

If you attempt to sing, particularly a higher note in your register, without any sort of preparation, your instinct might be to tighten up and force out the note, precisely the opposite of what you want to do. If you take the time to gradually

wake up your diaphragm, tongue, and the muscles in your jaw and neck, and get your breathing rhythms and air support in place, you will sound and feel better during and after the performance.

First, you need to make sure you can hear yourself. Sometimes you can cup your hands in front of your face, or you can stand one foot in front of a wall so that you can hear your voice bounce back clearly into your ears!

What you'll find every vocal coach mention is that good singing comes down to breath. Breathing is not just about holding notes longer. **How you breathe affects the tone, the power, and the range of your voice.**

What you do when you're not singing is just as important as what you do while you're singing. It's setting up your body to be in a position of mechanical advantage, to make sure you're not stressing your instrument unnecessarily, and using your body in the best way possible.

If you're not connected to your breath supply, if your voice is not riding on top of your breath, then your body is going to compensate and use something else to support your instrument, and probably use something that requires tension in an unnecessary spot that is ultimately unhealthy. It's all about connecting to the breath supply."

## Warm Up Routine

A basic warm up, like a series of stretches before an athletic event, can be customized for each individual, but here are a few basics to consider.

**Diaphragmatic breathing:** When you breathe correctly while singing, your rib cage will lift & expand. That's how you know you're using your diaphragm to help fill your lungs.

Then use your abs to give you more sustained, controlled, and powerful exhaled breath. To wake up your diaphragm, take six to eight deep breaths with your stomach — not your chest and ribcage — expanding. For three or four breaths, fill your lungs with air, hold it for three beats, then expel all the air in a long, sustained hiss. For the next three or four, let the air go in a series of staccato punches, using your abdominal muscles to push the air out. During all of this, work to keep your face, neck, and throat loose and relaxed.

**Hums:** Lips together, teeth apart — hummmm. You should feel vibrations between your lips. Slowly slide up and down smoothly. You should feel the vibrations continuously in the lips & mask — NOT back in the throat.

**Nnnns:** With lips apart, make the “N” sound (tip of tongue should be in contact with gum ridge, just behind top front teeth. Slowly slide up (1-3-5-3-1) and down, again maintaining the vibrations in the front and not back in the throat.

**Lip Bubbles / Rolls:** Take your big diaphragmatic breath, Produce a tone without straining your throat, and “sing” — moving up the scale — rolling your lips. This helps you focus on producing the breath and power you need to sustain your singing voice without straining the vocal cords. If you’re having trouble getting your lips to roll, press your index fingers on either side of your cheeks to help take the weight of the cheek out of the equation.

**Sing scales:** Using a piano (or a recording of a vocal lesson or piano scales\*), sing scales from the middle of your range (you can start at middle C) going down to the lowest part of your range, and then go higher and higher to the top of your range. Remember to focus on staying aligned with your support system and having your voice ride on top of the air you’re expelling with your abdominal breathing. Trying different vowel sounds will also help you focus on placement and shaping the sounds with your mouth.

Scales are essential, because they teach you flexibility, breath control, breath management – all sorts of things that make your instrument function well. Just singing a scale isn’t what I mean, singing a scale in a certain way is really important, where you are completely aligned with your support system.

\*Here is a Google Drive Link to a folder with mp3s of vocal warmup exercises. Be sure to print out the pdf document, which is a guide to the exercises.

<https://drive.google.com/drive/folders/1vgRhJ4Vey4pCcpxOSDAJ53tk1f4pWtmr?usp=sharing>

All instruments are subject to environmental conditions – humidity, heat, all sorts of things. But instrumentalists get to put their instrument in a case and walk away, or put it in a room that’s ideally suited to make it sound good. We have to take our instrument everywhere, and there’s this intersection of our lives and this instrument. So there are all sorts of things you need to pay attention to that other instrumentalists don’t have to.

Good health is good singing, and whatever you can do to keep yourself healthy is important. Stay hydrated. (It's not what you drink when you are in the midst of singing, it's more about how you've stayed hydrated throughout the day!)

## Poor Vocal Technique

Misuse of your vocal instrument can bring about negative consequences. The most common is a **raspy voice, unable to sustain long tones**. When a singer pushes, using the constrictor muscles in the neck, it causes tension in the cords, and they rub together in an unnatural way. This can cause the cords to swell — which means they will not vibrate properly (cannot close). Usually a couple of days of vocal rest will help this.

HOWEVER — If this continues, it can go from a raspy tone to laryngitis, an inflammation of the vocal folds & larynx. This will cause your voice to be hoarse and deeper in pitch....Getting over this takes longer....

NOTE: Sometimes this raspy or hoarse tone can be caused by acid reflux or other causes. If a singer is plagued by chronic laryngitis/hoarseness, a visit to an ENT is needed. In our area, I recommend:

EVMS Ear, Nose & Throat Surgeons. (Dr. John Sinacori & Associates).

[www.evmsMedicalGroup.com](http://www.evmsMedicalGroup.com) 757-388-6200

The ramifications of vocal abuse can be serious — vocal fold Hemorrhages, nodules, polyps & cysts can threaten a singers speaking voice as well as singing voice.

## Vocal Aggravations

Let's face it — Phlegm can plague us, especially via allergies in this coastal area. Certain foods can cause phlegm as well. Singers need to evaluate whether certain foods (such as dairy products, etc.) affect their phlegm output. (It's different for different people!)

Decongestants will help dry out excess mucous — but will also dry out the thin mucosal membrane which lubricates the vocal cords, and this can cause them irritation — and can lead to a raspy tone! I recommend Guaifenesin, which is the generic of Mucinex. This will thin out the mucous, enabling you to get it “out”, without drying out the cords.

A product that can help temporary dry throat is “**Entertainers Secret**”, which can be purchased on Amazon. It’s not a medicine — not a healer — it’s a natural, lubricating inhaler which can moisten cords. It helps. Nasal Irrigation also helps!

## Some Simple Vocal Care DO’s.....

- Get sufficient sleep.
- Stay hydrated.
- Gargle with warm salt water if throat is sore.
- Excess phlegm: Mucinex (Mucous Relief - Guaifenesin) NOT decongestant. Nasal Irrigation (Neti-Pot) is also recommended.
- Warm up vocally every morning!
- After you warm up, start singing praises to the Lord! Get your spirit ready to lead worship!

## .....and DON’T’s.....

- Avoid food & drinks that cause phlegm and/or dry you out!
- Avoid smoke - 2nd hand smoke is an irritant & health hazard!
- Avoid eating a big meal 2 hours before you sing (Eat an apple!)
- Avoid clearing your throat excessively, shouting, screaming.
- Avoid bad posture — body alignment.
- Avoid using voice when it’s irritated or injured — no whispering!