SUPERIOR SINGING MANUAL

BY:

AARON ANASTASI
Introduction - pg. 4
Breath Management: The Appoggio Breathing Technique (Part 1) - pg. 5
Breath Management: The Appoggio Breathing Technique (Part 2) - pg. 7
Breath Management: The Appoggio Breathing Technique (Part 3) - pg. 10
Breath Management: The Appoggio Breathing Technique (Part 4) - pg. 12
Breath Management: Normal Breathing - pg. 15
Breath Management: La Lotta Vocale - pg. 17
Breath Management: Silent Breath Management (Part 1) - pg. 19
Breath Management: Silent Breath Management (Part 2) - pg. 21
Breath Management: Breathy Singing - pg. 23
Breath Management: Abdominal-wall Action - pg. 25
Breath Management: Breath Retention Vs. Quick Expulsion - pg. 27
Breath Management: Overcrowding the Lungs - pg. 29
Breath Management: Checking Airflow Levels - pg. 31
Breath Management: Holding The Breath - pg. 33
Breath Management: Tension Vs. Flexibility - pg. 35
Posture: Proper Body Position (Part 1) - pg. 37
Posture: Proper Body Position (Part 2) - pg. 39
Posture: Proper Body Position (Part 3) - pg. 41
Posture: The Neck - pg. 43
Resonance: The Tongue (Intro) - pg. 45
Resonance: The Tongue (Part 1) - pg. 47
Resonance: The Tongue (Part 2) - pg. 49
Resonance: The Tongue (Part 3) - pg. 51
Resonance: The Tongue (Part 4) - pg. 53
Resonance: The Tongue (Part 5) - pg. 55
Resonance: IPA - pg. 57
Resonance: The Face - pg. 59
Resonance: The Jaw (Part 1) - pg. 61
Resonance: The Jaw - pg. 63
Resonance: Vowels (Intro) - pg. 65
Resonance: Back Vowels (Part 1) - pg. 67
Resonance: Back Vowels (Part 2) - pg. 69
Resonance: Back Vowels (Part 3) - pg. 72
Nasality: Eliminating Nasality (Part 1) - pg. 74
Nasality: Eliminating Nasality (Part 2) - pg. 76
Vibrato: Emerging Vibrato (Part 1) - pg. 78
Vibrato: Correcting Vibrato (Part 2) - pg. 80
Vocal Registers: Breaks and Cracks - pg. 82
Vocal Registers: The Mixed, or Blended Voice - pg. 84
Vocal Registers: The Mixed, or Blended Voice (Part 2) - pg. 86
Vocal Registers: Extending the Upper Range (Part 1) - pg. 88
Vocal Registers: Extending the Upper Range (Part 2) - pg. 90
Vocal Registers: Falsetto, Pop Music and Head Voice - pg. 94
Vocal Registers: Falsetto To Ease Strain - pg. 96
Vocal Registers: Falsetto To Ease Strain (Part 2) - pg. 98
Breath Management: Messa Di Voce - pg. 100
Vocal Health: How Long To Warm Up - pg. 102
Vocal Health: Protecting The Voice (Part 1) - pg. 104
Vocal Health: Protecting The Voice (Part 2) - pg. 107
Vocal Health: Protecting The Voice (Part 3) - pg. 109
Vocal Health: The Singer’s Diet - pg. 111
Intonation (Pitch): What Causes Pitch Problems? (Part 1) - pg. 113
Intonation (Pitch): What Causes Pitch Problems? (Part 2) - pg. 115
Intonation (Pitch): What Causes Pitch Problems? (Part 3) - pg. 117
Intonation (Pitch): What Causes Pitch Problems? (Part 4) - pg. 119
Conclusion - pg. 121
Introduction

Hi there! And welcome to the Superior Singing Manual! You’ve made a great purchase, because the information below, if taken in and applied, will be all you really ever need when it comes to singing well. This is true whether you plan to just sing occasionally or hope to sing professionally.

Now, some of the language is a bit technical, as this is meant to be a more advanced sort of learning manual, but it is also easy enough to understand that you will be able to understand it. And the information is exhaustive and very valuable.

Good luck to you as you work through this material and go through the video course itself. I’m confident that you will become a far better singing than you are today just by applying a few of the techniques and principles in this course.

I wish you all the best and know that you will find this course and the this manual extremely helpful.

Godspeed!
Aaron
Breath Management: The Appoggio Breathing Technique (Part 1)

What Is Appoggio?

While the word *appoggio* may be completely foreign to you right now, it won’t be by the end of this. I want to give you some idea about what appoggio is and how it can improve your singing by working on your breathing technique, your breath management, which is one of the most important factors of good singing.

Appoggio is sometimes seen as related only to the management of airflow while singing, which it basically is, but it is more than that. It is a support system that holds in balance the muscles engaged during inhalation (taking in a breath) and exhalation (letting the breath out) and the muscles of the larynx. The goal is to allow the abdominal wall muscles to control the airflow of exiting air, not letting it out too quickly, while making sure that the larynx remains steady or even slightly lowered, certainly not raised.

I know for some of my readers that is either boring or confusing, but bear with me for a second. This method starts out as a fog, but the more you know about it, the clearer it gets. And in the next section, I’m going to give some very practical methods to getting it that you can apply right away. First, I’m going to do my best to explain what it is.

In appoggio technique, the chest and sternum remain relatively stationary, not rising or falling very much, and start in a high, good
posture (“noble” position—keeping your head, neck and torso in alignment) type position. And the ribs stay pretty much in the position they were placed after inhalation.

During inhalation there will be expansion felt in the lower rib cage and on the front and sides of the lower torso. In fact, lateral abdominal expansion should equal, or even exceed, forward expansion. The main point of the appoggio breath-management system is to remain in the position of inhalation for as long as possible. This is the desired position for singing, in the appoggio method.

Appoggio is a breathing technique, technically, but it depends heavily on posture, body position and the interplay of the different muscles used for singing. In fact, the word appoggiare means “to lean against, to be in contact with, to support.” This is an accurate description of what’s going on with the main muscles in the abdominal wall. The stomach doesn’t push out or pull in when singing a phrase. The key here is maintaining torso stability—good, noble posture.

I know that was a lot, but hopefully it gives you a good introduction to appoggio or adds a few things to your understanding of it. I give you some practical examples of how to do this in the next section.
Breath Management: The Appoggio Breathing Technique (Part 2)

Implementing Appoggio

In the last section, I talked a little bit about the basics of what the appoggio breathing technique is all about and made mention of the fact that breath management is the most important aspect of great singing. The main goal of appoggio, I said, and good breath management, is to slow down the rising of the diaphragm, once it has been engaged and lowered during inhalation.

In this section, I’d like to say a little more about appoggio but mainly give you some practical ways to implement its physical position.

If you read the previous section, or know a little bit about appoggio, you may be wondering how this relates to “belly-breathing” or diaphragm breathing. I’ve talked a little bit before about the belly-breathing technique, both in articles and in The Singing Guide, and I find that there is value in it. But the appoggio breathing technique is in direct opposition to belly-breathing. It comes from a different school altogether—German, as opposed to Italian. But both claim to be associated with diaphragm breathing, and I think that is true.

I say all that to say this: while in the belly-breathing technique the stomach is pushed out during inhalation and held during exhalation, neither is the case with appoggio. Instead, during deep inhalation, the three main muscles of the lower abdominal wall expand laterally and only slightly forward, if at all. The bulk of the expansion (stupid puns!)
is done in the lower rib cage and around the oblique area, as the chest and sternum remain high (noble position), in the inhalation position for as long as possible.

One of the primary values of appoggio is that it tends to allow for less strain on the vocal folds (cords) and keep the diaphragm at its lowest. It is a system that works toward a unity of airflow and a freely vibrating larynx with a maximum amount of resonation.

Okay, blah, blah, blah. But how do you do it, Aaron?! All right, I'll say more about appoggio in this series, the next couple of sections, but let's talk practical. Keep in mind that explaining it, as is the case with most things in life, is much easier than doing it. And, in the case of the appoggio physical position, maintaining it is much more difficult than position it to begin with.

Start by raising your sternum to a high position, without using inhalation to help you. You don't want to raise it too high, not like marching band high. To get a good idea for how high, raise both arms above your head and point to the sky. Now, leave your chest where it is and lower your hands. This is about the right position. Notice also how your ribs are expanded, and make sure that your shoulders are relaxed. For appoggio, this is the physical position to maintain at all times while singing, both during inhalation and exhalation.

Notice that it is difficult to push your belly out in this position. That's okay, because, as we talked about above, your primary expansion
will be done laterally, in the lower rib cage through to your oblique area.

I hope this is helpful and not too confusing. I’ll say more about this in the next section, continuing the appoggio breathing technique series. And I’ll also talk more about the benefits as well as how to maintain the appoggio position, which is the more difficult part, of course.
Breath Management: The Appoggio Breathing Technique (Part 3)
*Maintaining Appoggio*

In the last section I talked some more about the nuts and bolts of appoggio and gave you some practical ways to assume its physical position. I mentioned that it is more difficult to maintain than to position yourself into but certainly not impossible with some practice. In this section, I want to give you some tips on how to maintain the position while singing.

Assuming the appoggio position, you will definitely feel contraction of the muscles in your back. In fact, your back muscles may even ache and be sore in the first week of maintaining the position. But that will go away, and the result will be more than worth it.

Begin by doing short vocal warm up, onset type exercises, inhaling in between each note. Focus on keeping the chest high while performing the exercise, and inhale sideways, as we talked about before (if this is still a mystery to you take your hands and put them at your sides, thumbs around back, index fingers just under your bottom rib and pinky finger down near your hips. With sternum and chest high, in noble position, inhale. Feel the air expanding your rib cage and on your side, down toward your oblique muscles, and in your back, not forward in your belly. Although it may not seem like your getting enough air, because your diaphragm is rising so slowly, the air that you take in will be more than sufficient for singing). Also, take
care that your chest doesn’t fall or recoil when finishing the first note, then take a breath before the second note.

And, too, your shoulders should continue to be relaxed, not helping to maintain the noble chest position or inhalation. The shoulders are passive in this whole endeavor, coming along for the ride.

Here are the three things to remember while maintaining the appoggio position:

1. **Up**
Get your chest/sternum up high, without the help of inhalation.

2. **Sideways**
Inhale sideways, along the lower rig cage and oblique muscles, and while your stomach may help out and expand forward some, you should primarily expand sideways.

3. **Stay Up**
Take care that you don’t allow your chest to fall when taking in more air, as tempting as this may be.

The most important thing, of course, is just keeping your chest nice and high. The other stuff will follow along somewhat naturally after a short amount of time and practice.

After doing the short exercises in this position, try longer and more challenging exercises!
Breath Management: The Appoggio Breathing Technique (Part 4)

*Practical Benefits & The Diaphragm*

In the last couple of sections I gave you specific, practical ways to apply and maintain the appoggio physical position. Hopefully you’ve had a chance to practice that some, and hopefully your back muscles aren’t too sore!

In this section I’d like to talk some more about the benefits of the appoggio breathing technique. I mentioned some before but want to go into a little more detail here to give you some motivation to keep working on it, as well as talk a little more about the function of the diaphragm. There’s a lot of talk about the diaphragm in singing circles, but what do we really know about it, and how does it apply to the appoggio breathing technique?

Let’s start with a few more benefits of appoggio method.

I had mentioned that appoggio allows for less pressure and strain on your larynx, your voice box, and it also helps keep the diaphragm from rising to quickly, giving you the maximum amount of space for, and more importantly, control of, airflow. With appoggio:

1. The air supply is not only more reliable but longer. It has a controlled airflow, allowing for more use with less air, not letting unnecessary air escape.
2. You will tend to have a greater stability in your tone, since you have the steady, controlled airflow.
3. It is much easier to execute a vocal run, meaning that your vocal agility will be better, more speed, accuracy and clarity.
4. You will have far more confidence in your singing, your vocal skills as a whole.

All right, hopefully that will keep you motivated to continue working on the method. You will get it. Don’t give up!

Okay, now let’s talk for a second about the diaphragm. I wanted to lay out a few facts about the diaphragm that will help you with your singing, but also put your mind to rest about a few things concerning the mystery surrounding the diaphragm.

1. Much of diaphragmatic action, for the most part, is still a mystery to even the most knowledgeable in singing circles.
2. No matter how hard you try, there is no way to directly control the action of the diaphragm.
3. While descending the diaphragm is the goal of the singer, it doesn’t descend as far as most singers think.
4. Contrary to what some think, the diaphragm is not active during singing; it is passive.
5. The reason that it is necessary to practice breathing technique for singing is because breathing for speaking and singing are nearly opposite. When speaking the chest and rib cage collapse and the diaphragm ascends rapidly. All of which represents the
least effective breath management for singing. Appoggio avoids the rib collapse of normal speaking and retains the inhalation posture of both the chest (sternum) and rib cage. And, most importantly, it slows the ascent of the diaphragm.
Breath Management: Normal Breathing

*Breathing for Singing Vs. Breathing for Speech*

Whenever I talk about breathing for singing or working to develop a breath management system, the push back is always, “Why do I need to learn to breathe? I breathe to stay alive, so I’m pretty good at it.”

Well, as you may have guessed, or already know, breathing for singing and normal breathing for speech differ. In fact, in some ways they’re opposite. Daily breathing for daily speaking is even different than the type of breath control methods needed to learn for public speaking theatre. The Shakespearean actor knows this. But, more drastic is the type of breath management system needed for good singing.

The normal, daily breathing cycle is short, about four or five seconds—about one second to breathe in and three to breathe out. Proper breathing for singing doesn’t require a completely new method of breathing, but an elongated version of regular breathing. The only real difference is that in normal speech the sternum and chest tend to collapse as soon as phonation begins, and the diaphragm rises. This is opposed to good breathing for singing.

Without sticking the chest out in military parade type style, that’s too exaggerated, the chest and sternum should stay up, in noble position,
during the entire breath cycle. The collapsing is done more in the ribs and abdomen rather than the chest. This aids in delaying the rise of the diaphragm, giving you more air and more control over the paced release of airflow, making the most of the air by turning the maximum amount into tone. The sternum and chest will fall to some degree, of course, but the collapse of the chest is what is to be avoided.

That’s the area where the breathing systems are opposite, but other than that, an extension of the regular breathing process is the ideal. Additional air is not necessarily needed in a singing breath management system. And you don’t need to “tank up” and get as much air as possible. That is counter-productive, in fact. But there is a sense of paced, quiet inhalation that may last a couple to a few seconds longer than normal breathing inhalation; although, this isn’t always possible, depending on the demands of a particular song. You may have to take a quick breath to hit your next phrase, timing-wise.

The primary difference with singing is that the breath is paced on its way out and used more efficiently. Breathy singing is closer related to speech, in this case, whereas proper breathing retains the position of inhalation for as long as possible, slowly pacing the air out, turning it into tone, not wasted, breathy air.
Breath Management: La Lotta Vocale

*The Vocal Struggle*

La Lotta Vocale, or the vocal struggle, is part of the appoggio breath-management technique and is in opposition to the belly-breathing method.

The vocal struggle is the challenge to remain in the inhalation position through inhalation, expiration and the silent renewal of breath. The struggle itself is for the muscles of inhalation not to give way to the muscles of exhalation, while quietly taking in a renewed breath, maintaining proper posture.

In order to sustain a note, the air must be let out slowly. In order for this to take place, the muscles of respiration oppose the muscles of expiration. The goal of this vocal struggle is proper breath-management, of course, but more specifically, this breath retention struggles to make sure that not too much airflow escapes, wasting the air and not using it properly. But at the same time, the goal is to simultaneously ensure that there isn’t too much resistance of the air from the vocal cords, adding unnecessary stress on them. This is the vocal struggle.

Too much concentration on these things will drive you crazy and inhibit great singing, though. It’s important to be aware of these things and work toward mastery, of course, but much of this will be accomplished simply by maintaining appoggio. And I know that that is
no easy task, but the primary concern is a high chest and breath expansion laterally more than forward. As you work on these things, the others will begin to naturally fall into place.

And remember, the goal is silent breath renewal. There is a trend in Pop music, especially with the more Emo kinds of styles, but certainly with Brittany Spears as well, where the inhalation is exaggerated and noisy. This is fine as a stylistic method, as is the occasional use of falsetto, but shouldn’t be mimicked as a breathing method.

A quiet renewal of breath means that you are opening up your throat and airway enough that air has a smooth, open passageway in and can be used immediately. While air is taken in slowly and let out slowly during your breathing exercises, while performing, you will often need to take air in quickly, grabbing a quick breath, so that you will have plenty of air to sing your next phrase.

The breathing exercises are geared to teach you proper breath-management, and within that structure, there is plenty of freedom and flexibility while singing and performing live.
Breath Management: Silent Breath Management (Part 1)

Silent Onset Breath Exercises

Sometimes referred to as “attack,” onset is the beginning of the sound that comes out of your mouth at the onset of singing. While this may not seem like that big of a deal, some would argue that the freedom and tonal quality of the rest of your sung phrase depends on it’s onset, because this is where the coordination of larynx and breath is determined. And I would tend to agree.

For the best possible breath management system (remember that breath management, in general, is the most important part of great singing), the singer must work toward mastering a well-balanced tonal onset. Proper onset includes a clean parting of the vocal cords, and this paves the way for the rest of the phrase. Before we start, it’s important to note that holding your breath is not ever a part of a good breathing system, not only for these following exercises but in general.

The following method is often called the Farinelli exercise (originating with his instructor, Nicola Porpora). Farinelli was an 18th century opera singer, who is arguably one of the greatest singers in the history of opera. This is a silent breath exercise and consists of multiple segments of breath cycles.

1. It begins with a quiet and slow, paced inhalation over a four count, with about one second per count.
2. Hold the inhalation position (noble position) for a four count, without “holding” your breath. It’s a delicate balance, but this should be done in one fluid, paced motion.

3. Quietly, with no audible sound, let out a paced breath over another four count.

4. Immediately, still silently, replenish the breath, always staying in the inhalation position. This is simply a return to step one. The breath cycle is a three-step process.

5. Repeat several times.

As you work through this breathing exercise, gradually increase the count, without increasing in the amount of breath taken in. You don’t want to have “crowded breath” but a comfortable amount of air used to its full potential. Eventually a ten count will be comfortable, for each step, and is a good goal to shoot for. And remember, the goal here is silent breathing.

Many singers have a hard time buckling down and doing breath exercises, thinking it’s not doing any good, that audible scales would be a better use of time. But the onset and breath management are the most important and set the stage for the rest of the phrase in singing. This exercise will help you to be able to sing long phrases effortlessly and sing with increased pitch and superior tone.
Breath Management: Silent Breath Management (Part 2)

Silent Onset Breath Exercises

I want to give you a few more silent breathing exercises. Like the one I gave you in the previous post, this is a non-phonetic exercise, meaning that it is a silent, non-voiced exercise. The purpose of these exercises is to move you toward mastering breath-management so that singing longer phrases and vocal agility, as well as pitch and tone, become better and more effortless. And, as always, these exercises should all be practiced with a chest/sternum high, inhalation position.

This first exercise uses sibilants /s – s – s – s – s/, quickly and unvoiced. These are to be executed rapidly in staccato sequence with one breath. Work through this exercise several times, and after each succession, take in a silent renewal breath.

This next exercise uses the fricative devise with a /f – f – f – f – f/ pattern. Like the previous exercise, this should be done rapidly, taking in a silent breath after each time. The idea to blow using /f/ as if rapidly blowing out five candles. The temptation may be to do some abdominal thrusting, but resist this. There should be minimal external evidence of your stomach moving in and out.

Again, your inhalation breath should expand the lower part of your rib cage as well as the sides of your stomach, oblique area and partially in your lower back. And, as always, keep you chest high. This is the
appoggio position and should be retained for the duration of the exercise. While there will be some forward expansion in your stomach, your sides and back should equal or exceed this expansion.

This next breath-management exercise also uses /s/, but instead of short staccato bursts, breath out a prolonged sibilant /s/. The air should be let out slow and paced, much like the Farinelli’s exercise shown above. And while this is also a silent exercise, there may be a faint, barely perceptible sound. Remember to keep that chest up!

Keeping this appoggio position may be taxing on the back muscles for about a week or so while doing these exercises, remaining in noble position, but that will fade, and your new posture will give you much more control over your singing. It’s worth it. I promise.

Also the goal is to keep that diaphragm from ascending as much as possible, which is why we stay in the chest high position. But it’s also important to keep the head, neck and torso aligned. This will assure that the rig cage is in ideal position. Keep working at it. You will get it!
Breath Management: Breathy Singing

*What Breathy Singing Is and How To Correct It*

I’m not against certain types of singing just because they aren’t technically correct, if they are done deliberately for stylistic purposes. That could be anything from screamy, hardcore vocals to jumping into falsetto to breathy vocals. Breathy vocals can be cool for a stylistic effect, here and there, but it’s pretty cheesy for the most part. So, it should mostly be avoided anyway but certainly for proper singing technique.

As you could probably figure, breathy vocals are a result of heavy airflow over the vocal folds that aren’t fully, or properly, together. Since the entire goal of singing is to turn airflow into tone by the vibrating larynx, breathy vocals represent a loss or waste of air and an incorrect pacing of exhalation. There needs to be more resistance given by the vocal folds but not by adding increased pressure and tension on the vocal tract (the system of singing from the abdomen up to the mouth). And if the first burst of air that comes out of your mouth is breath before tone, your onset is off from the beginning—the air-retention role of the abdomen is slackened—which leads to improper phrasing, singing and replenishing breath. The way you begin a sung phrase determines how well the rest of the phrase with be sung. That is why the onset (beginning of a phrase) is so important.
Amateur singers have a tendency to believe that part of the goal of good singing is how much air can be produced from the lungs, whereas the goal as actually how well you pace the exiting breath, turning it into tone.

Whether you have breathy vocals as a habit, a style or lack of control of your vocal cords, there are a couple of exercises that you can use to correct the breathiness. The first is the use of the consonant /k/, which holds back the airflow until the vowel is sung. You can do brief, mostly silent onset exercises starting with /k/ and moving to /kah/.

The second is like the first, but instead of using /k/ and /kah/, use /g/ and /go/. Remember to replenish your breath silently. And it is always a good idea to do your exercises with proper posture, chest up, and shoulders down and relaxed.

The third way to help diminish excessive airflow is to hum the consonant /m/. This exercise forces the air to release from the nose giving it a more indirect path. The /m/ hum should be voiced and repeated several times.

Over time these exercises should help rid you of breathiness. And if you want to throw in some breath every once in a while, say when you’re covering an 80’s ballad, feel free to do so, but, for the most part, you’re better off without it.
Breath Management: Abdominal-wall Action

How to Properly Engage the Abdomen

If you have ever been in school or church, or a board meeting for that matter, and suddenly found something to be overwhelmingly funny, and stifled laughter was the result, you know what natural abdominal-wall action feels like. Another example of this can be understood through the panting exercise. Panting, yes, like a dog, helps you to get a feel for proper abdomen engagement, which is key to good singing. When you pant, notice the action of the abdomen and the sides of your torso. Place one of your hands on your side and the other on your abdomen and give stifled laughter or panting and try. This is what should take place while singing.

I want to give you a few other exercises that will help you establish awareness of proper abdominal-wall action. The first is /Hm-hm-hm-hm-Hm/ done in normal speaking range. For the first part this exercise, the mouth is closed, with the sound coming out of the nose. Then end the phrase with some, lips open, stifled laughter, using consonant /h/. This whole exercise can be done on one single note, or pitch.

For the next one we’ll take it up to a higher pitch and use /Ha-ha-ha-ha-Ha/. Descend each one in a 5-4-3-2-1 pattern. Make sure that all parts of your abdomen are engaged.
Next we’re going to lose the /h/ and move to /Ah-ah-ah-ah-Ah/. This will cause the vocal folds (cords) to close at the onset (beginning) of each cycle, giving a slightly different sensation in the abdomen.

Remember, while doing these exercises, there shouldn’t be any consciously overt inward pulling or outward pushing, and at no time should there be any forced pulsing or shaking of the abdomen to create the effect of an engaged abdomen (or even vibrato, as some attempt to generate this way).

For the next exercise, let’s continue with /Ah-ah-ah-ah-Ah/ but use an agility pattern 123--1234--12345--123456. For this exercise, let’s start with quick staccato (short notes that are detached from the other notes—opposite of legato) notes. Once you feel where the energy source is, how the abdominal-wall is engaged, move to doing the same pattern but with drawn out, legato (smooth and flowing without breaks in between) notes instead. This will begin to help you connect your breath to your abdominal-wall action for eventually singing all types of phrases.

This is a great set of exercises that you can practice several times a week, and it is better when you do them in the order that is laid out here.
Breath Management: Breath Retention Vs. Quick Expulsion

*Slow Down The Exit Of Breath*

The title is just a fancy way of asking whether it’s better to get rid of all the breath in your lungs in one quick, noisy action or slow down the breath as it comes out, holding on to it as long as possible.

Breath shouldn’t be forced out quickly. That’s the opposite of what controlled breath management calls for. The goal with good singing is to acquire proper breath-cycle habits. This is accomplished by monitoring the exit of air as you sing. Pacing the release of air is the key here.

Some singers believe it’s best to get rid of all the air in the lungs before taking in the next breath. Then a deep breath is to be taken in so that you have a ton of air to work with. This is inconsistent with the Italian school of thought and the appoggio breathing method.

You definitely need to take in a nice breath, but it’s not about how much you can get and hold in. In fact, if you take in too much, you will be forced to let it out more quickly; it’s counter-productive. Instead the goal is to get a nice medium breath and slow down the exit of the breath turning as much of the airflow into tone as possible.

The way to do this is determined at the moment of inhalation and a balance between the major muscles in the torso. The muscles of inhalation must fight against the muscles of exhalation and not give
into them too quickly but instead hold the position of inspiration as long as possible while replenishing the breath.

The diaphragm is the best friend of this process, working in cooperation with the intercostals muscles (short external and internal muscles between ribs). But, as some erroneously think, the diaphragm is not engaged during singing, pulling in new breath, and does not force out breath either. *The goal of proper breathing is to slow down the rising of the diaphragm after inhalation.*

Forcing breath out of the lungs, rather than working toward slowing the exit of breath, is not only opposed to proper controlled breath management, but it can also be detrimental to the voice. It increases pressure on the vocal folds (cords), which could result in strain or even eventually damage.

The moral of the story here is that it’s not a good idea to try to empty the lungs of all the air before replenishing your breath, and certainly not in a quick manner. Not only is it not possible to rid the lungs of all its reserves, it is counter-productive and even harmful.
Breath Management: Overcrowding the Lungs

Nose Breathing to Replenish the Lungs and Relax the Vocal Tract

The logical thing to do when preparing to sing a long phrase is to tank up and get as much air as you can so that you will have enough to complete the phrase. But, if you’ve tried it much, you understand that this is counter-productive. When the lungs become overcrowded, it automatically produces a faster rate of exhalation. This not only causes you to lose your air more quickly but also counters any attempt to pace the exhalation, turning as much air into tone as possible by the vibrating larynx. Your intake of air should be to satisfy the lungs, not fill them up.

Another issue with tanking up is that it is more likely a noisy inhalation, which usually means bad form and a displacement of your chest, which, as you well know by now, should remain relatively steady with little to no displacement during intake and exhalation alike. If noise accompanies inhalation, it means that the vocal tract is experiencing tension, whereas it should be relaxed.

If this is a particular habit of yours, there are a couple of ways to correct it, besides just being aware of it and stopping. The first is onset exercises. Take the /s/ sibilant and do short, quiet staccato bursts and replenish the air quietly. You can do the same with /f/.

Another way is to breathe in quietly through your nose, which will slows down the ability to bring the lungs to full capacity and helps
teach intake pacing. This is good too because it helps the vocal tract to relax by lowering the body of the tongue as well as the larynx. This puts the vocal tract, including the muscles in the abdominal wall, in ideal position for singing. And breathing through the nose reduces the possibility of chest displacement.

Once you get a feel for the breathing system that nose breathing creates, you can transfer this technique to mouth breathing, which is the primary goal. And this kind of breath can be taken through the mouth not only slowly and paced but also quickly, when necessary, but always quietly.

Give yourself some time and grace to work through this breath management principle. The main thing is the silent intake of air. This almost always represents a relaxed vocal tract, which is always that goal.
Breath Management: Checking Airflow Levels

Three Airflow Level Checking Exercises

Breathy singing is almost always to be avoided. It is a poor use of air and goes against the goal of singing, which is to turn airflow into tone by an efficiently vibrating larynx. Some singers sing breathy as a stylistic measure, which I think it fine, but it won’t lead to a breath-management style that will serve you over the long haul. And it certainly will cripple you when it comes to longer, sustained phrases. Non-breathy phonation is superior.

You see, the goal isn’t to sing as powerfully as you can by pushing air out from you diaphragm and belly, thrusting it out of your mouth. Instead, you want to utilize every ounce of air, turning it into tone, not escaped air. This will ensure good tone, sustained pitch and give you all the tools you need to for any agility phrases that come your way.

The first exercise is the candle test. The idea is to sing phrases or scales toward the flame and neither put the flame out or cause it to flicker. Because, remember, the purpose of the airflow is tone, not wasted, escaped air that will cause the flame to flicker. And this, of course, is while singing vowels, since there is no airflow to speak of during consonants. One thing to look out for is what are called plosives (a stop of airflow from a consonant sound followed by a sudden release of air) and fricatives (turbulent airflow coming from the friction of air coming from a narrow opening in the mouth). These shouldn’t be part of the test. The test is based on the airflow released
while singing vowels. When doing this one, it’s best to set the candle down on a surface about a foot away from your face.

The second exercise has the same purpose as the first, and all the same principles apply. And, while it may not be quite as fun, it’s probably more practical. It is simply done with the palm of your hand. The difference here is that your palm is held about an inch or two from your mouth, while you sing a melodic phrase of a single vowel. If you sense a lot of warm air on your palm the airflow is not properly turning into tone. And the opposite is true if you only sense a small amount of warm air.

The final one is just like the second but a mirror is used instead of the palm. If a lot of condensation shows up on the mirror, work needs to be done to correct the breathiness. The goal is the least amount of condensation as possible, while some will be inevitable.
Breath Management: Holding The Breath
Steady, Uninterrupted Airflow

Most people, singers or not, tend to hold their breath for short periods of time, two to five seconds or so during normal breathing. I heard one vocal teacher say that this is the sign of a mild neurosis, that it was an indicator that someone has difficulty expressing his or her emotions. Now, I wouldn’t necessarily go that far, but I do know that holding the breath does not indicate a proper breath management system. It’s not the end of the world but is something that ought to be paid attention to and corrected.

I talk a lot about appoggio, which is a breath management system that I feel works well. There are other systems and schools of thought that I think have value, and I will occasionally talk about and use them, but I primarily go with appoggio. Maybe it’s because I’m part Italian, and it’s an Italian method. Ha!

Well, with appoggio technique, as you may know, the idea is to have nice posture, a high sternum and chest and breath in, expanding more laterally than forward. This is the position that you stay in while inhaling, singing, exhaling and replenishing your breath. It’s uncomfortable at first, but after a short time, it’s more than possible.

Another part of the appoggio method is to not allow the muscles of inhalation to give in to the muscles of exhalation too soon, maintaining a high chest and pacing the exit of breath, getting the
most out of each breath. The purpose here is to turn as much breath into tone as possible, so a breathy tone would be discouraged.

Although much of that may be review for you, I say all of that to say that some incorrectly believe that this means you need to hold your breath at some point in order to maintain the right posture and not allow the air to escape too quickly, keeping the inhalation position for as long as possible.

The truth is that this is a steady flow of intake, singing and replenishing the breath. There is never a holding of the breath because holding the breath causes your vocal folds (cords) to close too firmly, and it’s disrupts phonation, the producing of sound for singing. And it causes unnecessary tension in the larynx and abdomen.
Breath Management: Tension Vs. Flexibility

Don’t Try So Hard!

There is a delicate balance between applying the principles of proper breath-management and working really hard to try and apply them. Obviously, it is going to take some time and there is a degree of concerted effort, but there is a point that is crossed where the trying turns in to tension and rigidity. There should be a natural flow to allowing these techniques to work through you. If you sense tension, than likely you are trying rather than doing.

If you’ve seen the movie Forgetting Sarah Marshall, there is a funny scene where Jason Segal’s character is taking surfing lessons from Paul Rudd’s character. Attempting to teach him to pop up on his surfboard, Rudd keeps saying, “Do less; do less.” And eventually, “Do nothing; do nothing at all.” So Segal eventually just lies there, and Rudd says, “Well, you have to do something!” That’s kind of the idea; it’s somewhere in between there, and it’s up to the individual to find that balance.

When singing, you’re looking for freedom and flexibility. The goal is a type of free-flowing effortless singing. So if there is stiffness anywhere in your breath-management system, the sound isn’t free. The Italian school of thought, when it comes to singing is that controlled singing should feel uncontrolled. And the stiffness usually surfaces when the singer attempts to directly control the breath process, either at the larynx or stomach. There ought to be control
but more indirectly, and this is usually a result of proper posture, the appoggio noble stance (See “The Appoggio Breathing Technique” Part 1-4).

In order to work toward a freer sound, you may try a few different exercises:

1. **Hummed laughter.** This should be done in short, quick bursts and followed by a silent renewal of breath and then repeated.

2. **Quiet panting.** This should also be practiced with short velocity patterns followed by a quiet, renewed breath, done holding the inhalation posture as long as possible.

I speak a lot about the inhalation posture and that one of the main goals of a proper breath-management system is to hold this posture, a noble position posture, as long as possible, through the inhalation and the renewed (quiet breath). But don’t try too hard. If this is creating tension and rigidity, than it is defeating the purpose of the freedom of sound. So, do nothing; but do something. 😊
Posture: Proper Body Position (Part 1)
What it Is, and What it Isn’t

If you’re going through this course in order and have read through the breath management sections, you know that I talk a lot about posture, because posture and breath-management, to some degree, are two sides of the same coin. For that reason, the posture section will be shorter. So, if you think you’ve missed something, or want more content on the subject, please see those sections, particularly the ones in the “The Appoggio Breathing Technique”.

Now, what is good posture? It’s not far off from what your mom told you as a kid—“Quit slouching!” Good posture certainly has to do with a raised sternum and chest and straighter back (not completely straight, as the spine is naturally curved) but has even more to do with the alignment of your head, neck and torso. And this isn’t so much determined by a high sternum as much as it depends on the coordination of the muscles in the chest and the upper and lower abdomen. And, among other benefits, including setting the stage for a proper breathing system for singing, this alignment posture helps avoid the rising of the larynx, which is more difficult when singing higher notes.

Let me say a couple quick things about what correct posture is not, or at least shouldn’t be. First of all, good posture is not a stiff, rigid body position. While building the muscles in your back to maintain correct posture may take some time, and you may experience discomfort, an
aligned head, neck and torso shouldn’t be terribly uncomfortable and rigid. After a short time of practice, if should feel somewhat natural.

Also, it does not mean that you cannot move about, whether on stage or in your practice space. In fact, one of the exercises that I’m going to give you in this posture series requires just that. It is okay to shift your weight and even move your feet, walk if you have to. All of these things communicate a more natural performance. And the goal should be to maintain this alignment no matter what is required of you on stage.

I hope that this intro to proper body position is helpful to getting you started in the direction of good posture for singing. Begin to apply some of the things I mentioned here, and I’ll go more in-depth in the next section.
Posture: Proper Body Position (Part 2)
Further Description of Posture and Ways to Help Correct It

As I mentioned in the previous section, it’s okay to shift your weight from side to side and can maintain proper posture doing so. I want to add that while singing, your weight should rarely be distributed equally on both legs. In fact, you may have seen footage of groomsmen passing out at a wedding because they stood with their weight distributed equally between both legs and didn’t have their knees bent. It doesn’t offer the right amount of blood circulation, besides the fact that it doesn’t look natural, which matters during a singing performance.

While proper posture includes a high chest and sternum, it doesn’t include having your shoulders back in a military-type position. And that goes for the high sternum as well. If your shoulders are back and/or if your sternum is too high, your back will sway too much. This isn’t the end of the world but is better to be avoided.

Much more important than a “straight” spine (the spine has natural curvature in it) is the alignment of the head, neck and spine, as I mentioned before. And the way to align the neck is to have it in a normal speaking position, where the back of the neck feels long and the front feels short. Both facing up and down become problematic for proper posture and therefore for good breath support and singing. The ears should align with the shoulders and the spine, with the weight falling on the balls of the feet.
If you are having a problem comfortably feeling what the correct posture is, or your back is too curved, try balancing on one foot. Once you feel aligned on that foot, switch to balancing on the other. Then maintain that posture and share the balance on both. This should put you in the proper stance.

This is a good place to kill two birds with one stone by maintaining your stance and working through some of your vocal exercises. Remember to always begin with your vocal warm ups and then move to your vocal strengthening exercises. Feel free to move around and shift your weight from one leg to the next. Allow yourself to feel the freedom not to be rigid, while maintaining an aligned head, neck and torso.
Posture: Proper Body Position (Part 3)
Techniques to Help Correct Posture

As I mentioned previously, maintaining appoggio, in association with proper posture, has more to do with the coordination of the muscles in the vocal tract (the chest, the upper and lower abdomen and the navel) than it does simply holding up the chest and keeping the ribs out.

This is often problematic when singing longer phrases. It is difficult to maintain the inhalation position, with chest high, throughout longer phrases, so sometimes it can be beneficial to break the phrase into shorter segments and slowly bring them back together until the full phrase can be sung. Working with short onset exercises at the beginning of the phrases can also help (See “Silent Breath Management”).

One exercise that you can use to help maintain proper posture is to put your arms down and around your back grabbing on to the forearm of the other arm. This shouldn’t be done while singing, but it will alert you to what the proper position is. Notice that in this position the shoulders are back and down, the sternum is raised but not too high, and the rib cage is out. Notice also that your abdomen is free to expand.

Another exercise that will help align your head, neck and torso, while also helping eliminate abdomen pushing and pulling, is to practice
singing while lying down. This also works if you stand flush up against
a wall, but lying down gives you a better sense of where the source of
breath comes from, less from a protruding stomach and more laterally
on the side of the stomach and lower rib area. You can see this first
by breathing normally before attempting to sing. And the sternum
remains stationary both during inhalation and exhalation alike. And
notice also the lowered position of the larynx. Even when you move
your head from side-to-side your larynx is not raised.

After doing some singing, or even voice exercises (try 1-5-1,
5-4-3-2-1) while lying down, do the same thing while sitting tall with
your legs crossed. Afterward, try the same in a kneeling position.
Then try sitting on a desk or high chair where your feet are not able to
touch the ground. Next, do the same while standing and all the while
maintaining the same body position as when you were lying down.
Finally, do the same while walking backward and forward. This is a
great series of exercises that can be repeated often.
Posture: The Neck

Eliminating Tension in, and Strengthening, the Neck

If you’re anything like me, you are no stranger to neck tension. This can simply be related to sleeping patterns or the need for a new pillow, but it can also be associated with, and caused from, improper singing technique.

The good news is that it can be corrected fairly easily. If you turn your head, slowly and gently, side-to-side while singing, making sure to keep the alignment of your head, neck and torso, the neck tension you are experiencing from singing should begin to loosen up.

If your neck is in knots for another reason, and this is a fairly common, neck stretches are probably going to be more effective for you. A relaxed neck, free from tension is vital for singing well. Let's talk about how to do neck stretches, and then I’ll give you some techniques to strengthen the neck.

The neck should be treated carefully and gently when doing these exercises. We’ll do five different stretches at around thirty seconds each. The first is to take your right hand and place it on your head just above the ear and gently lower it to your right shoulder. Don’t force it, but make sure there is some resistance and stretch. Hold for thirty seconds. After slowly releasing the neck do the same but opposite; use your left hand pulling down to your left shoulder.
The third stretch is in between the side, which you just did, and down—somewhere in the middle. When you gently pull your neck down, your nose should be aiming toward your armpit. Hold for thirty seconds, and then repeat on the opposite, other side. The last one is straight down. You can use both of your hands to slowly pull forward, and then hold for thirty seconds.

Sometimes the problem of neck tension stems from weak neck muscles that need to be strengthened. One stretch, and strengthening exercise, is to slowly look as far as you can to the right and then as far as you can to the left. Do this consistently for thirty to forty-five seconds. This will strengthen the neck’s posterior muscles. After this, you can roll your head on your shoulders several times from one side to the other. (Please note that none of these exercises should be done if you have injuries related to the neck, spine or cervical disk.)

Be careful with that neck. It can be fragile.
Resonance: The Tongue (Intro)

Resonance and the Tongue

Resonance refers to a quality of sound, a sound that reverberates and is deep and full, the kind of sound that all singers would love to have not only in the lower register but the higher as well. Aside from a blended voice, a resonant voice is the primary key for the serious singer. Okay, that’s all well and good, but how do you get it?

The bad news is that there isn’t one particular way or method to get resonance. It is a byproduct of all that we have talked about so far. It comes from a good breath management system, a good onset and proper vowel shaping. The good news is that is all possible to accomplish, and with the right posture, chest high, shoulders down and relaxed, most of the other components fall into place naturally. And they fall into place much easier when regularly doing the exercises that we’ve talked about.

One of the greatest enemies of resonance is the tongue. But, for this reason, when tamed, it can be the greatest ally of resonance, since the tongue is the primary deciding factor of changes, good or bad, in the vocal tract (singing system from abdomen to mouth). This is to say that if you can tame the tongue, you are very far down the road of beautiful singing.
Much of the resonance takes place in the pharynx, which leads up to the nasal cavity and down the larynx to the other resonators where the sound vibrates. The tongue has the ability to block that airway and kill the resonance or stay out of the way and allow for full resonant potential. When the tongue pulls back, which is often the case for many while singing, it pushes on the epiglottis, which pushes down on the pharynx, closing off the airway passage.

When the tongue pulls back, it has a tendency to pull back the arches of the soft palate. Notice in the diagram where it labels the palate. The hard palate is toward the front and the soft palate toward the back. You can feel it with your tongue. The roof of your mouth is hard, but when you follow it back it get soft. That’s the soft palate. When the soft palate gets pulled back, it can also block the airway of the pharynx.

All of this can be avoided if the tip of the tongue stays where it ought to be, which is resting behind the lower front teeth.
Resonance: The Tongue (Part 1)

Tongue Anatomy and Position

I was always taught that taming in the tongue is one the most difficult things to do in life, and that this is important because the words that come out of your mouth can radically effect the direction of your life and the health of your relationships. Many animals can be tamed, but the tongue is the hardest among the beasts to tame.

The same is true when it comes to singing. The tongue must be tamed and is often out of control, not staying in the positions it needs to in order to have a great resonant tone.

The tongue, being the principle muscle for making vocal tract (system of singing from abdomen to mouth) changes, is connected to the larynx and the hyoid bone and resides in the mouth and part of the larynx. The base of the tongue is attached to the hyoid bone and then the larynx is actually suspended by tissue membrane. The tongue is an odd and unique muscle bundle. It’s the only muscle in the body, for both male and female, that is attached at one end and free to move around at the other.

Since there must be freedom in the vocal tract, the tongue’s position and lack of tension is vital in order to have proper resonance. An out of place tongue that lacks freedom will upset the entire vocal tract and negatively affect both timbre and enunciation.
So there is a little bit about where the tongue is, what it’s connected to and how important it is that the tongue remains in its proper position. Now let’s talk about what the proper position is supposed to be.

For the most part, the tip and top part of the tongue, its apex, belongs up against the lower front teeth. This is true for at least 70 percent of the time you are singing, for all vowels and a good majority of both voiced and unvoiced consonants. There are a handful of consonants that require that the tongue move directly behind the upper front teeth, and a few other voiced and unvoiced consonants require that the tongue use other postures. But, again, for the most part, the apex of the tongue should live flat behind the bottom front teeth.

When the tongue doesn’t stay where it needs to be, the entire tongue tenses up. In the next couple of sections, I’ll talk a little bit about some of the common unnatural positions of the tongue as well as tongue tension and how to begin to get rid of this tension that will upset the vocal tract and inhibit good singing.
In the previous section I talked about the importance of taming the tongue, which is generally very difficult both when it comes to speaking and singing. We often say things that we wish we could take back and can’t believe we said.

Well, having an uncontrolled tongue while singing can create tension in your tongue, which affects your resonance, enunciation and timbre. Because the larynx is directly affected by whatever position the tongue assumes. The tongue is one of three primary delinquents of tension. The other two are the jaw and the neck.

So let’s talk about some common tongue positioning problems. As I mentioned in the previous post, the ideal position for the tongue is to have the apex (tip) of the tongue rest relaxed up against the lower front teeth. This position makes up of at least 70 percent of the time you will be singing. There are certain vowels where your tongue will move to the back of the upper front teeth, too (like /t/ and /l/ for instance). Here are some of the common tongue positions that will cause tension in the tongue and vocal tract and negatively affect singing resonance.

The first is what is referred to as a retroflex tongue and takes place when the tongue is curled upward to the roof of the mouth (the hard palate).
The second is placing the tongue below the lower front teeth, below the gum ridge.

The third is lifting the sides of the tongue up, making contact with the upper molars in an extreme /i/ position.

In the forth, the tongue is either raised or lowered on one side without doing the same with the other side.

The fifth is grooving the tongue in any fixed position that doesn’t ever change when singing (while, of course, up against the lower front teeth is the general position.).

The sixth is exaggeratingly lowering the base of the tongue in the vowel position associated with the word “soft” and keeping it there for all vowel sounds.

The tongue is a difficult muscle to tame. The best way to get it under control is with a mirror (having a hand mirror on hand is key). Watch what your tongue does while singing. Choose some exercises or even just parts of your favorite song.

So, those are a handful of things to avoid doing with your tongue while singing. In the next section I’ll give you some exercises that will help you release tension in your tongue and also help you correct wrong tongue positioning.
Resonance: The Tongue (Part 3)

Correcting Tongue Placement Problems with Pilot Consonants

In the last couple of sections we’ve talked about the importance of the position of the tongue, since it is the principle muscle relating to making changes in the vocal tract, and changes in the vocal tract mean drastic changes in resonance. So, the position of the tongue, and keeping it from tension are vital for good resonance, articulation, timbre, and therefore, good singing.

Tension in the tongue interrupt good vowel definition by causing unwanted transition sounds. One way to correct this is by using pilot consonants such as /v/ and /f/ (others include /b/, /p/, /k/, /g/ and /s/) to position the tongue in its proper place before voicing the subsequent vowel. The nasals /m/ and /n/ can be used as resonant-balancing pilot vowels as well.

You see, the problem is primarily at the onset (beginning) of singing. Many singers will pull the tongue away from the proper position (tip of the tongue up against the inside of the lower teeth) and so the voicing of the vowels in the phrase will lack proper form, interrupting solid resonance. So, the pilot vowels are used to properly place the tongue just before singing the onset of the phrase. Say the phrase “un huh” will do the same, if you’re still having difficulty finding the correct position. The tongue shouldn’t be pushed forcefully against the teeth, just resting gently.
I mentioned in the previous section that you can find out where some of your onset vowel trouble spots are by looking in the mirror while singing and watching for improper tongue positions, and I gave you a handful of problem tongue positions to look for. The main thing is to find any particular vowels where you don’t automatically have your tongue in its proper resting position behind the lower teeth. And for any of these problem vowels you can use on of the pilot vowels to sing in front of it as a repeated exercise to get yourself in the automatic habit of proper tongue posture for that vowel. Most people have a few vowels that are problem vowels, but which ones vary from person to person.

So, for example, let’s say that one of your problem very sounds is /i/ (“ee”). You notice, when looking in the hand mirror while singing, that every time you voice the /i/ vowel, the apex (front/tip) of your tongue wants to rise and hover, which is common, by the way. The way you begin to correct this to use one, or a few, of the pilot vowels and place them before this sound in an exercise. For this particular problem, you can use the pilot vowels /f/, /b/ and /k/. Start with the /f/ and in a 1-2-3-2-1 pattern say, “Fee, fee, fee, fee, fee”. Make sure that the tongue stays where it should. Then do the same with the others: “Bee, bee, bee, bee, bee” and “Kee, kee, kee, kee, kee”.

Once you feel like the problem is working toward being corrected, the consonant should be dropped, and you should continue to sing the phrase with only the onset vowel itself.
Resonance: The Tongue (Part 4)

Exercises for Relaxing Tension in the Tongue

We’ve been talking about the tongue in this little mini-series, saying that it is vitally important that the tongue be free from tension and also be in proper position while singing. What I haven’t mentioned specifically is that proper tongue position for the onset vowel determines the proper phrasing of the following phrase, which effects your resonance, timbre and overall quality of singing. That is why I went into plenty of detail in the last section to talk about how certain pilot consonants sung before problem vowels can help correct tongue position, particularly on the onset of a phrase.

In this section, I want to give you some specific exercises that will help release tension in your tongue. Since the tongue is the primary culprit in changes in the vocal tract, as we have talked about, tension can upset vocal freedom and overall beautiful singing.

The first exercise is a tongue trill or sometimes called the tongue-tip trill. The idea is to do an extended roll of an /r/. This is a rapid flutter of the tongue on the roof of the mouth (hard palate). Tongue trills, or rolling of the /r/ is sometimes harder for North Americans to pull off, while it is a regular part of Latin American language. If you place your tongue on the roof of your mouth while releasing air from the lungs, you should begin to get the idea. When doing the tongue trill, it’s important to make sure that there isn’t tension in the base of the tongue, which is a common pitfall. This will defeat the purpose.
The tongue trill can loosen up the tongue and can be done over a variety of melodies. Extending a tongue trill for several seconds at a time also doubles as a good breathing technique exercise (see “Appoggio Breathing Technique”). As you do the trills keep your chest and sternum high (not military parade high but about as high as your chest will rise when hands are raised over your head). Take note that during inhalation you’re expanding as much in the lower ribs, and oblique area, as in the front of your stomach.

Here is a good exercise pattern with the tongue trill:

1. Trill in a 1-2-3-4 ascending pattern and hold the last note for the longest until you are about 80 percent out of air.
2. Trill in a 1-2-3-4 ascending pattern but switch out of trill and hold out the vowel sound /i/ (as in keen) until you are about 80 percent out of air.
3. Trill in a 1-2-3-4 ascending pattern and hold the last note for the longest until you are about 50 percent out of air and then descend 4-3-2-1
4. Trill beginning with a descent 4-3-2-1 and then back up 1-2-3-4 and then switch out of trill and hold out the vowel sound /e/ (as in chaos).

These steps can be repeated working into a higher register as well.
Resonance: The Tongue (Part 5)

Exercises for Relaxing Tension in the Tongue and Retaining Proper Positioning

We’ve been talking about tension in the tongue and how this can make changes in the vocal tract that can negatively affect your singing. And tension in the tongue can easily be transferred to the larynx, since the tongue is attached to the hyoid bone, from which the larynx is suspended.

And in the previous section I gave you one great set of exercises, based on the tongue trill, that can help loosen up the tongue and also help you work on your breathing technique. In this section, I want to give you some more exercises to help correct tongue tension.

The first exercise I want to give you is a quick, easy one that will address both tongue and jaw tension. Simply sing any sustained pitch while rapidly moving the jaw, lips and tongue in a back and forth, lateral movements. Simple, huh?

The next one will not only help loosen the tongue but will also help with phonetic ability, because it will give you some practice mouthing the different vowel without lifting the apex (tip) of the tongue out of its proper starting resting position. It will help you work the other parts of the tongue to shape the vowels, which may feel strange at first but will begin to feel more and more normal over time.
For this exercise start with a “Hmm” hum at a comfortable pitch. At first, make sure the apex of the tongue is in the correct position, resting gently behind your bottom teeth. Then, while voicing, and mouthing, the following vowels /e-i-a-o-u/ move your tongue laterally, back and forth along the inner surface of your lower teeth. Then hold out the last vowel sound /u/ keeping your tongue in resting start position. Repeat this exercise several times daily.

Hopefully these exercises will help you find freedom in your singing by loosening up the tension in your tongue, teaching the tongue to properly voice vowels (without the apex of the tongue going rogue!) and keeping the unruly tongue behind the lower front teeth where it belongs.

Taming the tongue should be one of the major goals of the serious singer, as it will radically affect the way that you sing, since it one of the primary factors of change in the vocal tract. And remember, the mirror is your best friend in this process. Watch what the tongue does while singing and adjust accordingly.
Resonance: IPA

Enunciation and the International Phonetic Alphabet (IPA)

I grew up in Huntington Beach, California, which is nicknamed “Surf City”. And, like many beach town communities, my friends and I mumbled to each other in a way that was almost unintelligible to those on the outside that weren’t familiar with our lazy, slang speech. It was practically its own idiom.

Well, getting a little older and dealing with more and more “outsiders” (we began to move a lot), I got sick of repeating myself all the time. All I ever heard was, “Huh? What?” It got old, so I began to enunciate more, just for sanity’s sake.

Then I stumbled on a tip that a really good singer friend of mine told me. He said that when I sing, I should over-enunciate and that this would actually just sound normal when I sang, even though it would sound weird in regular speech. So, I started doing that, and I began to get feedback from fans and listeners all the time about how they could always understand my lyrics when I sang live. And this was, and is, a big deal to me because I work hard to write good lyrics, and I want people to hear and appreciate them, and, ultimately, be moved by them.

Depending on the style of music you plan to sing, you may need to take this a step further; it may be important for you to learn the International Phonetic Alphabet. While this isn’t as vital when singing
more Pop styles, it is very important in both Classical and Opera. The IPA will help you enunciate correctly when you sing, which will, in turn, help you to sound better when you sing, for a couple of reasons. First of all, the words will sound better, and more correct, when enunciated correctly. And properly voiced vowels, which is to say, properly mouthed vowels, will resonate more than mumbled or incorrectly voiced vowels.

When voicing vowels, each has its own shape in the vocal tract, which is to say that it’s not just your lips and tongue that change position but your entire upper voice producing mechanism, including your soft palate, larynx, vocal folds, etc. So, producing the right vowel shape is an important part of the singing process. And, again, this is especially true if you’re singing in another language, which is often the case in Classical and Opera styles. And my guess is that you’re not going to learn an entire language just to sing a few songs; instead you will just learn the different vowel shapes of the language.

The rule is this: the one who enunciates well, sings well. Let me add—and resonates more.

\textbf{Resonance: The Face}
**A Pleasant Look On Your Face Improves Your Tone**

Whenever I watch someone perform, I always pay close attention to the facial expressions they are making. I’m sure you’ve done the same. I want to know how they are feeling about their performance, and somehow I am more engaged if they seem engaged. Now, can this be artificially communicated? More or less, it can, to a certain degree.

A pleasant look on your face will not only put you at ease, as well as those watching you, it can also improve the tone of your voice. In hysterical laughter, your mouth and entire vocal tract, and pharyngeal wall (area surrounding the pharynx) enlarge, and your zygomatic muscles (muscles around lips and cheeks) rise. The same happens when smelling a rose, or a good fragrance, slowly. A pleasant look comes over your face that is not a full smile. When this pleasant expression is combined with a full inhalation there is a change in the shape of the pharynx’s resonating tract, which improves tone.

The Old Italian adage that says, “inhale as though smelling the fragrance in a rose” is referring to the rising of the zygomatic muscles. This slight raising of the skin and muscle in what is called the mask (or masque) area has been a common voice training theme for years. With the smelling of a rose technique the soft palate raises and gives a smoother, fuller singing tone.
The components of the vocal tract (larynx, soft palate, jaw, tongue and lips) are relatively compact. For this reason, even a small change in one of these components directly effects the singers resonance balance, which is why a pleasant facial expression, and raised zygomatic muscles and soft balance can have a noticeable effect on your resonance.

This fact can also be helpful if stage fright is an issue for you. One of greatest things you can do to put yourself at ease is to smile. When you smile, it creates a psychological effect in your body, which relaxes you and lifts your spirits. Your psyche follows the lead of your physical body. And of course, you demeanor will affect the way your audience perceives you. If you look and feel nervous, your audience will feel uncomfortable and not want to be there. So, smile. You don’t even have to have a goofy grin; it could simply be a pleasant look, as if smelling a flower.
Resonance: The Jaw (Part 1)

Jaw Mobility

I talk a good bit about “dropping the jaw” while singing. This is a method of creating more space in your mouth so that the sound has more area to resonate, giving the voice a nice, warm tone. Keeping the jaw dropped and opening the mouth good and wide simply allows for better, clearer, more resonant sound.

However, you don’t want to keep your jaw dropped or lowered all the time. This is a beginning method to help the beginner singer to be mindful of the basics of singing. But the singing voice and vocal tract is not a fixed resonator system. What I mean by that is that the sound of your voice comes from a complex system that is your body, which is made up of muscle, bone and cartilage and is part of a system that is living and breathing. It’s not like a flute, an instrument with a fixed, unchanging body. So, no one position will work for all scenarios.

Constant alterations must be made in the vocal mechanism depending on the song, the vowel shapes required, the range and even the intensity. A constantly dropped jaw will cause all vowels to sound similar and unnatural and can also cause undue strain. The other parts of the vocal system are in constant flux: the lips, jaw, face, larynx, tongue, etc., and so with the jaw. None of the parts of the voice producing mechanism should be held in a fixed position.
Again, dropping the jaw has tremendous value and should be used when necessary. I’m not saying that it should be abandoned. In fact, another value of the dropped jaw is the lowering of the larynx. This is also a good thing. The goal for proper singing is a steady to slightly lowered larynx. This isn’t something you try to do consciously, of course, but will naturally happen when the jaw is lower (it happens with the deep inhale of smelling something pleasant, too). It also happens naturally with each full breath renewal. But with the hung-jaw, as some call it, which is an excessively lowered jaw, the larynx can be overly lowered.

So, have I completely confused you and freaked you out yet! Let me sum up what I’m trying to say.

You want to create space so that the sound you produce is full and resonant. This can be achieved, partially, by making sure the jaw is low (not hung), but it needs to be in flux, flowing naturally as you voice the different vowel positions and as the song changes in intensity and range.
Resonance: The Jaw

Relaxing Jaw Tension

If you do, or have, experienced tension in your jaw, you’re not alone. This is common to singers and non-singers alike. Whether or not you’re a singer, you may grind your teeth when you sleep, which creates tension in your jaw, and even excessive gum chewing can do the same. Also, many people clench their jaw without realizing it.

Also, hanging the jaw, having it inordinately lowered while singing, can also create tension. The jaw doesn’t make a ton of movements during speech, so it shouldn’t have a ton of movement while singing. One good way to get an idea how much the jaw should or shouldn’t move, or be lowered, is to take your hand and put it just below your jaw, and say a few sentences. Notice how little the jaw moves around. The same, for the most part, should be true when you sing. While the higher the pitch, the more the jaw should lower, it should never be in a hung jaw (idiot jaw) position.

Well, no matter what the reason you may have tension, it’s essential to relax the jaw. Tension in the jaw is the enemy of free singing and can diminish good tone and resonance. Here is a good sequence to relieve that tension.

1. Gently mimic chewing in a circular motion, with your lips apart, for thirty seconds.
2. Continue the chewing movement but more side-to-side and with
   the lips closed.
3. Add a hum to the previous step.
4. Then sing a short phrase a few times, while continuing the
   chewing, side-to-side motion.
5. Then sing the same phrase without chewing, making sure the
   jaw is loose.
6. Sing a longer phrase while chewing.
7. Sing the same longer phrase without the chewing motion.
8. Finally, speak the phrase while looking into a mirror, without
   chewing, and then sing the phrase, using the same jaw
   movements.

Different methods are used to relax the jaw, like forcing it down or
apart. This method may have some benefit, but what needs to
happen is the jaw must return to natural speaking-like postures and
movements (because how you speak—the mouth movements—is
how you sing). And this isn’t going to happen by stretching the jaw
downward.
Resonance: Vowels (Intro)

Correct Vowels Pronunciation

Although the formation of vowels feels like it is happening in the front of the mouth, which it partially is, what is actually being felt is the direction of airflow. The real shaping of vowels begins in the pharynx.

And since the actual resonant sound produced when singing comes largely from the right voicing of vowels, I want to start by working on their pronunciation.

The language that forms these vowels most correctly for singing is Italian, so I want to give you the pronunciation of the main vowels in Italian: /i, e, a, o, u/. The following are the voicing that will be used, for the most part, in the exercises: /i/ “ee” as in “glee”, /e/ “eh” as in “then” /a/ “ah” as in “father”, /o/ “oh” as is “note”, and /u/ “oo” as in “you”.

65
Practicing scales and vocal exercises with these vowel sounds will create muscle memory that will help you feel when you are voicing the vowels correctly and feel where the airflow hits as the vowels are voiced and produced correctly.

Let’s start with the /i/. Nice and loud, sing out the “ee” sound. Notice the direction of the airflow and the shape of your mouth. Feel how it hits the front teeth. Next, move to the /e/ “eh” sound. Feel how the airflow shifts slightly to the roof of your mouth, the hard palate. Notice the shifting of the shape of your mouth, too. And make sure the throughout all these shapes, the apex (tip) of the tongue remains up against the surface of the lower teeth.

Next, voice the /a/ “ah” sound, and you can feel how the air shifts back even more and the pharynx opens up a little more. Then with the /o/ “oh” and /u/ “oo” the air shifts back even more, and the throat opens up even further.

Shaping these vowels correctly is vital, as I mentioned above, so here are a couple of exercises you can work on to make sure that you continue to voice the correctly and begin to build muscle memory so that you can also feel when you are shaping them properly.

Take each of the vowel sounds and do the following pattern, shifting to the next vowel at the completing of the pattern until you’ve done them all. Then begin again. Here is the pattern: 1-2-3-4-5-4-3-2-1.
And remember to keep your tongue in its proper position through all of the vowels.

If you continue to have an exceptionally tense or sore jaw, especially if it’s most severe when you wake in the morning, you may grind your teeth when you sleep (a very common phenomenon), and it may be in your best interest to get a mouthpiece made by a dentist.
Resonance: Back Vowels (Part 1)

Resonating the /u/ Vowel

If you’ve ever noticed that you seem to sing better on certain notes, certain vowels or even certain keys, you’re right. You do. This is common to all singers. There are simply some notes and vowels that seem to resonate really well and give you a sense that you are singing powerfully but also effortlessly. This is where you want to attempt to be in every vowel in the spectrum.

The difficulty for most singers comes with the so-called back vowels. The consistency of pitch, and therefore resonance, suffers as the vocalist (even in speech) sings /i-e-a-o-u/ (pronounced in Italian, which is the standard I use: /i/ “ee” as in “glee”, /e/ “eh” as in “then” /a/ “ah” as in “father”, /o/ “oh” as is “note”, and /u/ “oo” as in “you”). You can see, as you voice these in sequence, that there is a sort of arch downward in the acoustics.

So, first I’d like to talk about how to brighten the /u/, which is the sound from the middle and end of the word, “you,” since it is the worst of the bunch. In order to mouth this darkest of the back vowels, most will pucker and round the lips. But this is how the resonate overtones get swallowed up. In this position the front lip comes down over the front teeth, lowering the zygomatic muscles facial muscles (muscles that form the smile and also flexed when closing eyes tightly), which disrupts both the internal and external resonators.
One great way to correct this problem of the non-resonant /u/ is to use the word “you”. When two adjacent vowels occur in the same syllable, as is the case with the word “you,” it is called a diphthong. In this case the two vowels are /i/ (“ee”) and /u/ (“ou”) are the two vowels. And the /i/ sound, being the most lateral sound, make the /u/ as a following vowels resonate, when you keep the same lip and mouth shape.

Start by quickly saying “You-you-you” in a 5-4-3 pattern, then “You-you-you-you” 5-4-3-2, then “You, you, you, you, you” 5-4-3-2-1. After doing the final one several times through (5-4-3-2-1), ditch the “y” and just sing the /u/ using the same mouth, lip and tongue position as you did using the diphthong sound of both /i/ and /u/.

This exercise can be done regularly for several weeks until your muscle memory kicks in and begins voicing the /u/ with plenty of resonant sound. And in the next section I’ll give you a couple other helps for the darkest of the back vowels /u/.
Resonance: Back Vowels (Part 2)
Resonating the /u/ Vowel

In the previous section, I gave one example of how you can get more resonance out of the darkest of the back vowels, the /u/, which is the vowel sound from the word “you”. Here I want to give you two more exercises that follow in a good succession with the first one: “You-you-you-you-you” in a 5-4-3-2-1 pattern.

The next exercise is the use of the word “knew” to help find that balanced /u/. With this pattern /n-i-u/ there is an added nasal tone before the lateral vowel /i/. The two tones work together as great leads to the /u/, helping open it up and giving it the full resonance it deserves.

At first, make sure that all three sounds are present. Then work toward doing it in a more fluid motion, all as one vowel sound. Then, drop the /n/ and, eventually the /i/ sounds and voice the /u/ with the same mouth, lip and tongue formation as you did with all three /n-i-u/.

And, just as we did with the “you,” we’re going to do the same with the “knew”. Start with “Knew, knew, knew” 5-4-3, then “Knew, knew, knew, knew” 5-4-3-2, then “Knew, knew, knew, knew, knew” 5-4-3-2-1. Spend the bulk of your time on this last one, again, as before.
The final thing that we’ll do here is add a front vowel. This one should follow as the third exercise in the series. Once, you feel comfortable with one, move to the next and so on. The phrase here is going to be, “I knew you”. And instead of beginning with the descending pattern, as I had you do with the other two, voice this phrase on the same pitch several times through. Then raise the pitch and do the same. Continue to raise the pitch as high as you can comfortably sing it. After several times through this, begin doing the “I knew you” in the descending pattern 3-2-1.

After a short time of working through these three exercises (the two here and the one from the previous section), you should begin to hear, and feel, a substantial difference in the sound of this dark back vowel. In the next couple of sections we will tackle a couple of the other tough to resonate back vowels.
Resonance: Back Vowels (Part 3)

Resonating the /Ω/ and the /a/ Vowels

In the last couple of sections we talked about how to get the best, most resonate sound out of the darkest of the back vowels, the /u/, which tends to lose its overtones and lack resonance, because of the tendency to purse the mouth and lips. This puckering pulls the top lip down over the front teeth in a sort of grimace, which pulls down on the zygomatic muscles (smile muscles), canceling out both the internal and external resonators. If you missed that, feel free to go check that out.

For the first part this section we’re going to address the second darkest of the back vowels, the /Ω/, which is the vowel sound from the word, “good”. The first thing we’re going to do with this one is say the phrase, “I shook the good nook”. Pay attention to the position of your mouth when saying this phrase. Notice how it feels and take a look in a mirror at how it looks.

Then with the same rounding position of the mouth, say the word “good” in the pattern 1-2-3-2-1. The idea here, much like what we talked about with the /u/ vowel, is not to purse the lips too much, no more that in the phrase, “I shook the good nook”.

The /Ω/ vowel sound is a round vowel, whereas the /i/ ("ee") for instance is a lateral vowel sound. And the round vowels should all, with time and work, be nearly as bright as the lateral vowel sounds.
And, this exercise, and particularly the word, “good” in the 1-2-3-2-1 pattern is a good one to use in your transition area from chest to head voice (See “Vocal Registers” section for more information on chest and head voice) to ensure a more resonance in the lower harmonics as well as the upper harmonics.

Now let’s talk a little bit about the first of the back vowels, the /a/, which is the vowel sound in the word, “cat”. Even though this is the brightest of the dark back vowels, it is one that frequently gives problems to singers.

What we want to do is adjust the resonant balance of the /a/ vowels, and the way we do this is by juxtaposing it with the pilot vowel /æ/, which is pronounced, “ash” and is the vowel used in the word, “bat”. Jumping from the two vowels /a/ and /æ/ creates a slight shift in the body of the tongue, the lips and the jaw. So we will repeat the phrase, “The mad black cat can’t stand fat rats”.

This exercise is fun and silly, which may make you smile. This is also beneficial for singing because it raises the zygomatic (smile) muscles in your face, creating greater resonance.
Nasality: Eliminating Nasality (Part 1)

Cause, and Elimination of Nasality

I’m certain you’ve heard really thin, nasally voices that grated on your nerves. Maybe you didn’t know exactly what is was but knew that you didn’t like the voice and that it was abrasive. An example of a very nasal voice would be Lois in the animated series *Family Guy*. Obviously it’s like that on the show to distinguish her character, and often times animated voice-over characters have voices that don’t reflect normal sounding voices, like Sponge Bob, for instance.

Well, that nasally sound is pretty universally recognized, by speech therapists and singing instructors (and probably you!), as an undesirable (maybe even insufferable) timbre. A voice that has a small amount of it can be fine, even nice as a particular style, but, for the most part, it’s unacceptable and should be eliminated.

The good news is that the cause of unintended, excessive nasality is known, and it’s relatively easy to eradicate. It occurs when the soft palate (velum) is lowered, which opens up the velopharyngeal port while singing nonnasal sounds.

Let me break that down in more understandable terms. Your soft palate is the soft, fleshy part in the back of the roof of your mouth. If you follow the roof of your mouth with your tongue, you can feel it. And when you say the word “hanger” you can feel your soft palate lower and meet the back part of the body of your tongue.
Notice what happens in the middle of the word “hanger”. In the first part of the word, the “hey” sound, the airflow is almost exclusively coming out of your mouth. A small amount of air may be unintentionally coming out of your nose. Then during the /ng/ part of the word, if you hang on that for a few seconds, allowing the air and sound continue to flow, the air switches from coming out of your mouth, entering another port, the velopharyngeal port, and comes out of your nose. It switches back to almost exclusively coming out of your mouth once you finish the word on the /er/ sound.

So, in order to eliminate nasality, the velopharyngeal port must remain closed, particularly when singing nonnasals. The port will, and needs to, temporarily open during nasal, such as the /ng/ sound. The sound and air must continue to flow during nasals, of course, but the opening should be quick and closed immediately upon returning to a vowel sound.

Of course the soft palate is a major culprit of nasality, too, along with the opening of the velopharyngeal port, and we’ll talk more about that and some exercises that will help to eliminate the nasality in the next section.
Nasality: Eliminating Nasality (Part 2)

Exercises to Help Eliminate Nasality

In the last blog we determined that a nasally sound is certainly not preferable, and we talked about where it comes from and how to begin to eliminate it. We said that the lowering of the velum (soft palate) and the opening of the velopharyngeal port (where airflow goes too much through the nose) is what causes unwanted nasality, and that in order to eliminate the nasal sound, we need to have sufficient closure of this velopharyngeal port and keep the velum from falling, particularly during nonnasals. During nasal consonants, like /ng/, the port needs to open momentarily in order to continue and smooth flow of air while singing. But the goal is to return quickly to a closed velopharyngeal port and not having it open during nonnasal vowels.

So, that’s a little review. Now let’s talk about what we can specifically do in order to make that happen and get rid of the undesirable nasal sounding voice.

First, plug your nose and sustain a vowel sound. Then while still singing the note, let go of your nose. This should give you an idea of the different sounds and sensations of the two different timbres. Theses different sounds and sensations should be taken note of and memorized. If this exercise is done enough, you can begin to develop muscle memory. Then you will know right away when you are producing a nasally sound and automatically correct it.
Another exercise that can be used to eliminate nasality is to sing a word that has a nasal voicing, like “sung” and then immediately add an open vowel at the end. An /o/, as in the word “open” works well. This will raise the velum and get you in the habit of having it up and what it feels like to, indirectly, raise it up. The word “hanger” works well, too, and has a built in vowel sound at the end.

One final way to move toward eliminating nasality is simply to enunciate your words more fully. When you sing, it’s important to enunciate slightly more than you do when speaking. This will come across as normal when you sing, and people will be able to understand your lyrics. You don’t want to overdo it, of course. But with some practice, you will find a good balance. And this simple trick will also help eliminate nasality!
Vibrato: Emerging Vibrato (Part 1)

*What is Vibrato, and How does it Emerge?*

Depending on what kind of music you were raised on or enjoy, vibrato may be something that you vehemently avoid, or it may be to you the mark of a good, professional singer. Either side of that fence is a fine place to be. While I sing with one of the straightest tones that you have ever heard, outside of Michael Stipe, from REM, I can produce a pretty crazy vibrato and do bust it out for flavor from time-to-time. But I’m a rock/pop music singer.

The classical or opera singer is the opposite. They will sing with vibrato on a normal basis and only use straight tone for flavoring. Again, either way is good. It is simply a matter of preference. So, I want to talk a little bit about what vibrato is and isn’t and how it emerges. And I use that word deliberately, because vibrato isn’t something that is produced or created, necessarily. It simply emerges from a healthy voice, if sufficient breath control and vocal fold (cord) freedom exist in the singer.

Let’s first talk about what the phenomenon of vibrato is and then talk a little bit about how it emerges; although, the exact source of vibrato is still somewhat of a mystery to the singing community and its instructors. But there are definitely some patterns that we will discuss.

With vibrato, there is an oscillation in the pharyngeal (pharynx) wall, the epiglottis and even partially in the base of the tongue. It is a pitch
variation that is characterized by a fluctuation that is neither too wide nor too narrow. Singers try to avoid the wobble or tremolo, which is not vibrato. Some singers, who try to avoid the wobble attempt to do so by restricting pitch variation. But not only will this bring about tension, full singing, full vibrancy, is what is needed to bring about vibrato, which brings us to the how to, or the source, of vibrato.

Vibrato is largely a result of the energy of complete breath coordination, the response of the vocal chords and the relaxation of the components of the vocal tract. It is product of an exciting of the larynx. It is somehow created by muscle relaxation in the midst of heavy-duty active singing. And with vibrato are three separate factors: pitch variation (oscillation), cycles per second (time related) and a deviation of magnitude (volume and range related).

So, there is the intro into vibrato. I’ll say more about it in the next section and talk more about how to bring it about.
**Vibrato: Correcting Vibrato** (Part 2)

*Correction, and More Description, of Vibrato*

In the last section, we talked about vibrato and said that the source of vibrato is a bit elusive, but there are some factors that are known. Vibrato is something that emerges when enough energy (not force) is present, along with vocal fold (cord) freedom and relaxation in the vocal tract (voice system from the abdominal to the mouth). Vibrato is not an excessive wobble or tremolo but occurs without being manufactured. The larynx, while there is some slight movement in the laryngeal area, remains relatively steady during vibrato, which is not the case during an unwanted wobble.

Also, vibrato is not a variance of pitch to the point that it throws the voice intonation out of whack. If this is the case, then the oscillation is more manufactured and falls more into the category of a tremolo. This isn’t desirable. Proper vibrato actually has an intonation centering effect, meaning that it helps intonation; it doesn’t hurt it.

By way of further description, vibrato isn’t classified as a pitch variant, even though that is how it seems (and is sometimes taught). Instead, it is an evenly distributed vocal timbre spread throughout a cluster of notes.

Because it’s not fully understood where vibrato comes from, I’m trying to give you a handful of scenarios of how it can be brought about naturally. With enough work and practice, it will come to you. Once
you get the actual feel for how it comes about, it’s easier to set the stage for it to emerge.

An evenly regulated airflow along with enough closure of the vocal cords is a good place to start, along with proper enunciation. And remember, it comes from a relaxed vocal tract. Tension is a sign of trying to manufacture vibrato, which will often result in a wobble.

In order to get rid of the wobble and try to move toward a natural vibrato, start with a proper inhale, remaining in the inhale position (chest up, ribs out) and slide quickly between two notes (glissando). This same type of thing can be done mimicking the childish sound of a ghost. Notice the very slight pulsing in the stomach. The stomach shouldn’t be pushed in and out, though. This ghost exercise may help create an environment for the vibrato to emerge.

Don’t be discouraged. It may take time. Implement some of these tips, and it will emerge after time.
Vocal Registers: Breaks and Cracks

Voice Breaks In-Between Registers

In the next section I’m going to talk about the different registers, so I’m not going to go into too much detail here, but I will need to touch on it to talk about the breaks in your voice, the crack that everyone hates and fears.

If you have done much singing, you know what I’m talking about when I say a “break” in the voice. Hopefully your introduction to one of the breaks, or cracks, in your voice wasn’t in front of a crowd of people. It can be very embarrassing. And this is one of the first things that most vocal students want to address and fix.

Breaks in your voice generally happen when your voice crosses the in-between section from one register to another, and, most commonly from chest voice (the middle register) to head voice (the upper-middle register). Right in this section, there are two muscles (thyroid and arytenoids) wrestling against each other, steadying the tension. One or both of these muscles may give way, if they aren’t strong, and the result is a crack, a break, a strongly noticeable flip in your voice.

This is common to most singers, at the beginning stage of their singing journey. But once the muscles increase in strength, this happens less and less, until it eventually disappears and you have a mixed or blended voice, which we’ll talk about in the next section. And
I'll give you a few exercises to work on so that the blended voice comes sooner rather than later.

This isn’t the only time the voice cracks, of course. During puberty the voice cracks all over the place, but I’m sure you know that, especially if you are a teenage boy.

The voice also breaks when it tenses up or spasms, which can be a result of nervousness or fear. The tension forces the voice to flip and change registers. This is an example of your psychological state affecting your physical. But this too can be corrected. With the combination of a good breath-management system and strengthened vocal tract (through strengthening exercises), these breaks will be a thing of the past. It’s no fun not feeling like you can trust your voice. When I didn’t feel like I couldn’t trust my voice, early on, it made me more hesitant to sing in front of other, which is the whole goal, right? I guess not for everybody but for most.
Vocal Registers: The Mixed, or Blended Voice

Vocal Registers and The Blended Voice

As you may know, both males and females have several registers. Although there is some debate, each sex has about three. For males, there is a chest voice, which is essentially the range of the speaking voice all the way up to what is often called the “calling” voice. When you call to someone who is ten to twenty feet away, you are using your head voice, which is the next register up. Then there is the falsetto, which is sort of a classification of its own and is often not considered a register but, instead, a timbre. Falsetto, which I go into great detail about in the Falsetto series section, is the voice that mimics a female voice and is a high, thin, airy sound. The female voice has the chest and head registers and then, instead of a falsetto, they have a whistle register.

So, that’s a brief discussion of registers, so that I can explain the blended voice, which is just that, a blend of all the registers. Most all untrained voices have a crack or break in-between registers. This passageway from one register to the next (passaggio or zona di passaggio) takes some time to smooth out. For some singers it takes an entire career, while others are able to smooth out the transition relatively quickly or even just naturally, organically over time, which was the case for me. But there are several different exercises that can be done to shorten the amount of time it takes to smooth out the passaggio so that you have one, wide-ranged mixed voice.
One of the best ways to begin working on the blended voice and smooth out the *passaggio* breaks is to start with brief legato (smooth, flowing notes without breaks) descending patterns like 5-4-3-2-1 in a low range, beginning in the head voice. Do this exercise a few times and then do 8-7-6-5-4-3-2-1 working from the lower part of the head voice into the chest region.

I’ll give you a couple more exercises in the next section, but first I want to give you some idea how to find your *passaggio*. There will be one from head to chest and another into the falsetto (male) or whistle (female).

In order to find the passage, transition points, use the word “hey” or “hi” and slide the voice upward in a glissando (continuous slide) to a comfortably high note. Notice where the pitch lightens or stops or breaks. These are the *passaggio* points.
Vocal Registers: The Mixed, or Blended Voice (part 2)

Exercises To Acquire The Blended Voice

In the last section, we talked about how we have a few different registers, and the goal of the serious singer is to blend the registers together by getting rid of the cracks or breaks in the passage ways (passaggio) between those registers. Once that is accomplished, you will have one wide range, a mixed voice. This will give you much more freedom in your singing. I gave you a couple of exercises in the last section and want to give you a couple more here.

The first is one that you may have heard from me before. It’s called the siren, and it basically is just that, making the sound of a siren. You start in the lower range of your voice and mimic the sound of a siren in a glissando (continuous upward slide) all the way through your registers and back down. Males should take this all the way up into the falsetto, which will help begin to smooth out the passaggio from the head voice into the falsetto and vice versa.

This exercise can be repeated several times daily. This will also help to extend, and work on, the notes in your upper range. But, primarily, it will help begin to smooth out the breaks and blend the registers.

During this process the vocal folds (cords) go through a rapid stretching and thinning and then back down in the lower notes to a fuller, thicker size. It’s a great workout for the chords. Done quickly, portamento (sliding from one note to another) style, this can be used
as a good warm up exercise and will also clear out some of the unwanted phlegm in your throat.

The glissando siren can be done on the /m/ consonant as well as the /v/. This will help alert you to proper breathing technique, as well.

One last exercise that can be useful to blend the registers is to arpeggiate (sing the notes in a more broken, scale-like manner, not a glissando) 8-1-8-3-8-5-8. This one will be a little more difficult and is a great agility exercise. The octave leaps will cause a jump from the different registers.

If you work on these exercises regularly, along with the ones I gave you in the previous section, you should be well on your way to a nice blended voice with a smooth zona di passaggio.
Vocal Registers: Extending the Upper Range (Part 1)

Freedom in the Middle Range and Range Increasing Exercises

Most singers, at one point or another, want to figure out how to increase their range. Singers don’t usually care as much about increasing their lower range, while some do, so to talk about increasing range is usually to talk about extending the upper range. The good news is that is it definitely possible to do.

However, the way to increase the upper range is definitely not by thundering away in the higher notes, hoping that your voice eventually adapts. It certainly will not benefit you to scream. Extending your range happens over time. For some that time is less than others, but it is certainly a process and takes work. And it cannot be secured before developing a free middle range. In fact, a free and developed, and increased, upper range is the overflow of a free middle range. It is built by healthy responses and patterns established in the mid-range.

But since we’re not talking about the middle range right now, let’s talk about some exercises that can be done to work the upper range. The first is hilarious laughter.

This may sound a bit odd, but during laughter, particularly no-holds-barred, hilarious laughter, the voice reaches a much higher range of notes, naturally. What I mean by that comes from the philosophy
(based on the Italian school of thought) that good singing comes from good speaking. Phonation of singing should always resemble normal speech. Screaming isn’t in the speaking repertoire, whereas laughter is. With screaming, there is immense tension in the vocal folds, and the larynx is fixed in a raised position. Neither of which lead to free singing.

You can try laughter, the freer the better, on different vowel sound. Experiment with that some, and then you can use different sounds to do siren exercises. I’ve talked a little bit about siren exercises previously, in the mixed/blended voice section, but they are just like they sound. Mimic the sound of a siren. This has the additional benefit of crossing the different registers and smoothing out the transitions in the passaggio areas.

One more exercise is an ascension and rapid descending, like in the following pattern 1-3-5-6-5-3-1 on a vowel sound (begin with /a/, as in “father”) The beginning note can be gradually taken up one half step. The key here is to apply natural vowel modification as the pitch rises (I’ll say much more about that in the next blog post) and increase breath energy, always remembering to remain chest and sternum high, shoulders down and relaxed, staying in the inhale position for as long as possible.
**Vocal Registers: Extending the Upper Range** (Part 2)

*Vowel Modification in Upper Range Without Vowel Distortion*

A big part of extending your range has to do with vowel modification as pitch increases. In fact, the two go hand in hand. When the singer attempts to sing higher notes while using the tongue and mouth position, without any vowel modification, the result is vowel distortion and tension in the neck and throat. Also, it can inhibit proper pitch in the upper range.

The analogy goes as follows. If you call to your friend, Dane, who is right next to you, you will shape the /e/ (the vowel sound in the word “chaos”) in a certain way with your velum (soft palate) pharynx and the base of your tongue. Now, if you call out to Dane when he is across the street, the definition of the vowel must change in order for there not to be vowel distortion. The velum, pharynx and position of your tongue in the same vowel shape will come across more like, “Don”. And Dane will look behind him to see to whom you’re calling.

Since the singing voice is an extension of the speaking range, the same concept applies to singing when it comes to modifying vowel definition. It’s important not only so that the vowel is not distorted, but, as I mentioned before, also effects proper pitch in higher ranges as well as the ability to hit the notes in the upper range. When you call out to Dane, breath energy increases, your mouth opens wider and vowel definition changes.
One way to work on vowel definition is to pay attention to proper vowel shapes first in the middle range. The upper range is simply an extension of the work done to create a free middle range. So, to start, you can use different vowel sounds in the middle range in an ascending scale up into the upper range. Start with an /o/ vowel (as in “Note) in the middle of your range and climb up 1-2-3-4-5-6-7-8. Notice how the vowel changes as the notes rise. Continue to increase the 1 with a half step each time. And make sure that you are opening up your mouth more as breath energy and pitch increase.

I hope this has been helpful. Work through these exercises as well as the ones before, and you should begin to see an increase in your upper range. It takes time, though. Don’t get discouraged! You’ll get it.
Vocal Registers: What Is Falsetto?

Anatomy and Explanation of Falsetto

There are a lot of different theories about what falsetto is and where and how it occurs. Some say that falsetto is anything other than modal (chest voice). Some even say that it’s the mid-range in between chest and head voice. Falsetto, though, is the register (some don’t consider it an actual register, but it is at least a voicing and for sure a timbre) above both the chest and head voice and is the imitation of the female voice used for stylistic coloring or comic effects.

Okay, that’s what it is. Let’s talk a little bit about the pitch-changing mechanism to see what is really going on there and what the deal with falsetto is.

As you may know, as pitch rises the vocal folds (cords) become less thick and dense; they stretch and elongate. And resistance to airflow also increases with the rising pitch. While speaking and singing, the vocal folds remain in contact with each other and their vibration is what causes the sound in the phonation process. Well, as the pitch continues to ascend, higher and higher, the vocal folds reach a limit of how taut, how tight they can get, and it is at this point that falsetto occurs.
With falsetto, the vocal ligaments (the inner part of the vocal folds) separate and become slack. In this position, air escapes rather easily through the middle of the chords only catching the inner sides of the vocal folds, producing an airy high-pitched sound. This is a built-in defense mechanism that releases the tension from the vocal folds while still allowing the pitch to ascend. This is not too say that the vocal folds have two settings, open, during falsetto, and closed, during regular phonation, singing and speaking. The vocal folds have several degrees of closure.

While it is possible to strengthen the falsetto timbre, it will never have the sound quality or power of the head voice. But every note that is voiced in falsetto can also, through work and practice, be sung in the head voice. And the head voice is designated by full vocal-fold closure, whereas the falsetto timbre is characterized by slacker vocal folds that are more open, creating an airy sound.

There is a little intro to the falsetto timbre. In the next section I’ll say more about falsetto and how it compares to head voice.
Vocal Registers: Falsetto, Pop Music and Head Voice

*Pop Music’s Use of Falsetto, and Falsetto Vs. Head Voice*

While those in the classical world shun the use of falsetto, especially when it is used as a substitute for full head voice (*voce piena in testa*), it can be a very useful tool for stylistic coloration, which even classical instructors would agree. It can also be, and has been, used as a primary form of singing, as we’ve seen in Pop music over the past six or seven decades.

Falsetto has been used in the Pop music world for decades. In the Fifties, you couldn’t hardly hear a Doo-wop song without the heavy use of falsetto, like the Penguins with “Earth Angel,” For instance. Then in the Sixties, there were bands like the Beach Boys who made constant use of falsetto, with songs like “Wouldn’t It Be Nice”. Then in the Seventies with Disco Pop Music, bands like the Bee Gees and songs like “Stayin’ Alive”. Then of course, all the Hair-Metal bands of the Eighties like Poison and Winger. And the list goes on. Today there are plenty of bands that still use falsetto. Many of songs by Coldplay, One Republic, Mike Posner and Greyston Chance make plenty use of Falsetto.

On the one hand, falsetto has its place in the music world, especially the Pop world, but it shouldn’t be used as an excuse to avoid the hard work of developing your head voice. Any notes that can be sung in
falsetto can also be sung in head voice. Now this certainly takes time and practice, but it should be the goal of the serious singer to reach this goal. And, even if you plan to sing in the Pop world, falsetto is not quite as popular as it used to be as a main voice source of singing. That’s not to say that you can’t bring it back, though! Either way, instead of relying on falsetto, it’s important to develop your head voice so that you always have the option to use both depending on what the song or situation calls for.

Hopefully this was a fun read and informative. In the next section, I want to talk about how to use falsetto to relieve some of the pressure put on the throat from singers who use increased subglottic (larynx and vocal fold) pressure and aggressive vocal fold closure (this is often referred to as forcing). This happens at the onset and can be damaging to the voice. This is most often seen with male singers, and is common with screamers form the Hardcore and Screamo genres.
Vocal Registers: Falsetto To Ease Strain

*Falsetto Onset Technique Can Ease Pressed Phonation (Forcing)*

Strain

In the last couple of sections we talked about the use of falsetto and said that while it shouldn’t be substituted for the full head voice, it does have its place. It can be used for coloration and stylistic effect, as is the case with many Pop songs now and even in Classical and Opera styles. We even saw how falsetto has been used over the ages in different Pop styles of music.

Now I want to talk a little bit about how falsetto can be used to help ease the strain when transitioning from your chest voice to your head voice, a technique for preventing forcing and strain.

There is often quite a bit of strain if the singer attempts to carry the chest voice into the *passaggio* (transition, passage from one register to another) and even try to carry it into the head voice. What happens in this process is what is called pressed phonation, or forcing. Pressed phonation is the opposite of free, healthy singing.

During pressed phonation the closing, vibrating vocal folds (cords) are too long and the opening phase of the process is too short. Basically this causes a traumatic event for the vocal folds, because there is too much airflow and resistance, while the vocal folds are
continuing to stay pressed together. That’s where falsetto comes in, and, again, not to replace proper head voice but to minimize excessive pressure from the vocal fold resisting departing breath.

Because airflow resistance is slackened with falsetto, while the vocal folds are still elongated to continue to deliver the higher pitch, it can be a great help if used at the onset (beginning of phonation, voicing) of the Passaggio. There is a tendency, especially among male vocalists, to “grab” at the onset and push in order to hit the right note that is on the verge of his transition point from one register to another. This, of course, causes excessive resistance in the vocal folds and the subglottic (larynx and folds).

So, the exercise is to momentarily switch over to the falsetto timbre at the onset in order to ease the tension. Then switch immediately to your full head voice register. This will create a lighter onset and transition in a position where the vocal folds are similarly elongated, as they would be at that pitch in your full head voice.

In the next section I’ll give you actual exercises to work on this technique.
Vocal Registers: Falsetto To Ease Strain (Part 2)

Falsetto Onset Exercises To Ease Pressed Phonation

In the previous section, I talked about how a quick use of falsetto, with an immediate jump to full head voice, can reduce pressed phonation at the onset during the point at which your voice changes from one register to another. The tendency is to force the note because of the range and the difficulty in the area of transition. So, instead of pushing the note in full head voice, using falsetto helps relieve the tension. And because the vocal folds are stretched and elongated during falsetto, much like they are at higher pitches in head voice, the transition is smoother. This is not to mention the obvious, that during falsetto, the vocal folds aren’t as close together as they are during full head voice, so there is less resistance to the excessive exiting air.

So, having talked about what the technique is and what goes on in the voice, let’s talk about some specific exercises that you can do to implement this.

The first exercise is a standard 5-4-3-2-1 pattern in the upper range, beginning in the falsetto timbre on a vowel sounds (say, /i/ “ee”) and sustain the final note while switching to a full head voice. This is done, of course, by closing the vocal folds. This can be done is several different keys, but always in the upper range. Also, it may be easier to start with a 3-2-1 pattern and work toward the full 5-4-3-2-1.
Second, it’s important to learn to consciously switch from one timbre to another, from head voice to falsetto and vice versa. This should be practiced as an obvious switch as well as a gradual change. This will also help you develop a strong mixed voice, smoothing out the *passaggio* transition. One way to work on this is to sustain one single pitch and switch back and forth from falsetto to full voice and back. Make the transition drastic at first and work toward smoothing it out.

The third, is an extension of the second. Sustain a single pitch in your upper-middle-range, as above, in falsetto. Then change to the full head voice, continuing to sustain the pitch in a descending pattern 8-7-6-5-4-3-2-1. Then, after replenishing your breath, start on the original note, but use full head voice at the onset. Repeat both parts of the exercise several times.

The idea is to release tension at the onset of the head voice, using the falsetto onset only as an exercise to train you to have a full but unforced onset with the head voice during the *passaggio*. The goal is to have a balanced, rather than pressed, phonation, particularly on the onset. After all, what happens at the onset affects the rest of the phrase. A good onset equals a well-sung, balanced, resonant phrase.
Breath Management: *Messa Di Voce*
*What It Is And How To Start Practicing It*

Let me start off by saying that singing *messa di voce* is not easy and is usually practiced by seasoned vocalists who have worked for many years to do it properly. But it’s a great exercise of breath-management and phonation control, which is to say engaging the vocal folds (cords) with the proper onset (starting point) and closure. It is the ultimate exercise when done correctly. The singer who has established secure and complete breath-management can execute it. It is possible and a great exercise to shoot for.

The phrase *messa di voce* means, “placing of the voice” (it shouldn’t be confused with *mezza voce*, which means, “half voice” and refers to the use of a softer, quieter tone). *Messa di voce* is a swelling of the voice, all on a single note, which starts pianissimo (very softly) and gets increasingly louder and then after the crescendo peaks loudly (forte), the voice then slowly begins the decrescendo until reaching the initial pianissimo level of sound.

Let me give you a couple of common pitfalls when attempting *messa di voce*. Both of which result in a breathy tone that lacks vibrancy, strength and a trace of vibrato. The first is running out of air too early, as it requires a long phrase to be done properly. The other is slack vocal fold closure before the end of the exercise.
Let me give you a starting point for executing *messa di voce*. Remember, the goal is consistency of airflow. The reason this is difficult is because of the changing of dynamic levels, from soft to loud and back. Also, remembering, and applying, the appoggio breathing technique will help quite a bit. As a refresher, keep your chest and sternum high (not too high, about as high as your chest rises when arms are raised), shoulders down and relaxed. Take a complete but not overcrowded (too full), silent breath, and turn the airflow immediately into tone with a good onset, managing the exit of airflow, taking care not to waste any. The expanding should primarily be felt in the lower ribs and oblique area, as well as partially in the stomach. And, most importantly, keep your chest in this inhalation, high position for as long as possible while singing.

All right, let's start. The best way to start is to divide the exercise up into three different stages and to voice it in your lower-middle range. The first stage is to sing the note from pianissimo to forte. Second, take a quiet renewed breath. And third go from forte to pianissimo. After some time and practice, eliminate step two and combine one and three, all in one breath. Then you can work with it at higher vocal ranges and with each of the vowels.
Vocal Health: How Long To Warm Up

How Long, And What, To Warm Up

Warm ups are absolutely vital. No strenuous activity should be performed without having warmed up. Whether you are a runner, swimmer, dancer or singer. All involve strenuous activity, and all should begin with warming up.

With singing, while warm up exercises definitely include vocal warm up exercises, scales, etc., it also includes warming up the whole body. Singing is a whole body event, and more specifically the body from the waist up.

So, exercises should start with some type of motion that targets the torso, the abdominal wall and the neck. Certainly the shoulders are a part of the singing event as well.

Once doing a few minutes of physical exercise, a regimen of specifically vocal warm up exercises should be done. A good regimen includes a variety of different exercises and different techniques, working out range as well as register blending, agility, resonance balancing and sostenuto (sustained).

Warming up should be done daily. Beginners may find that their voice feels fatigued after ten to twenty minutes. That's fine. That is plenty of time at first. More advanced singers, hoping to do a complete range of all technical work, may warm up for closer to thirty minutes (this
usually includes their strengthening exercises). After a while, you can perfect a vocal routine that is just a few minutes a day.

A good vocal warm up only needs to be done once in a day and should last the remainder of the day. But that doesn’t necessarily account for vocal strengthening exercises for technical work in developing the voice further.

While lighter voices, whether male or female, don’t usually need to warm up for very long, females in general usually don’t need to warm up for as long as males. Because the male voice has such a wide range in the chest voice, whereas the female voice switches over the head voice much sooner, increased energy is used and needed for the male voice in the pitches above middle range. There should be plenty of warm up done in the chest register, for the male, before asking the voice to do the work in the higher ranges.

Warm up time will decrease as your technique gets better. And this is good because too much vocal warm up before a performance will tire the voice, and it will lose some of its shine.
Belting

Belting is really just as it sounds, forcefully and loudly singing, especially to hit a note or a group of notes that are at the top or, or beyond, your range. You hear this quite a bit in live performances, and there are even some instructors who teach this as a method. I don’t, and I’ll tell you why.

During singing, as pitch ascends, the vocal folds (cords) stretch and elongate, and when singing at the top of your range, the vocal ligaments (the inner edges of the vocal folds) stretch as far as they are able. The vocal folds have the option to either separate in the middle, as is the case with falsetto (a similar phenomenon happens with females, but they don’t technically have a falsetto voice) or withstand the tension, even though the cords have no more room for elongation.

So, what happens is a forced malfunction of the registration. Here is what I mean. The larynx compensates and rises, narrowing the spaces between the false vocal folds and true vocal folds. And the result is a loss of the larynx as a resonating source. And this is a problem because the larynx is one of the chief resonators. Without the maximum amount of resonators present, the sound of the voice is flat and thin.
This is not even to mention the possible damage that this repeated forceful tension could do to the vocal folds over time. The tension of the closed vocal folds withstanding a big rush of air creates almost a grinding, not unlike what happens during a whisper. But belting is much more extreme and traumatic for the voice.

When I was a teenager I traveled with a choral group across the country, performing at several venues and television stations. Each song that we performed had a couple of solos that were split among the members of the group, and some were higher profile, more coveted than other. These were the harder, higher phrases that received the greatest response from the audience.

At first, I didn’t get any of these solos because I was the youngest in the group and the newest member. But I did get my chance. But the part, at that point, was beyond my ability. It was just too high. We’ll, when the time came, and my part came, I belted out the note with all I had, but it was too much for my vocal folds, and they partially separated, in order to protect themselves from the immense tension, but stayed together enough to let out a squawk.

It wasn’t one of my finer moments. But I learned that belting was no substitute for spending the time to develop the range.

The reason the voice breaks when you push it like that is because each pitch has its own size opening size of the vocal folds. The lower the note, the larger the opening. So, naturally, the higher the note, the
more elongated and stretched the vocal folds get and the smaller the opening. So, blasting that much air through elongated vocal folds with a small opening is too much for the folds, so they separate in order to protect themselves, and that’s where the break happens.
Vocal Health: Protecting The Voice (Part 2)

Fatigue and Swelling

In the last blog we talked about how the vocal folds elongate and mass decreases as pitch arises, and tension is created as the vocal fold closure resists the airflow. All of this is natural and isn’t problematic. However, when too much force is used to push the air through the elongated vocal folds, particularly at a very high range, this could add trauma to them. That is essentially what happens during belting.

Another common problem for those who frequently perform, especially those who spend a lot of time singing in higher registers, is vocal fatigue. Not only does the voice feel tired and maybe a little sore, but it’s not unusual for the singer to temporarily lose part of their lower speaking range. And the voice can sound sort of raspy.

This used to happen to me quite frequently, and sometimes still does. I used to get freaked out by this and think that I might be permanently damaging my voice. But I found that after a couple of hours, certainly after a night of sleep and vocal rest, the swelling would go down and my voice would return back to normal. Again, this is common, and has to do with a couple of different possible factors.

First off, as was the case with me, it can, and often is, a result of excessive vocal fold tension, which is created by singing with too
much energy or volume. This happens to me when I get into a performance and half scream the words out of passion.

One thing I used to combat this, since I can’t have my voice be swollen after each performance, is turn the monitors up so that I can hear my voice more loudly and clearly. The less I can hear my voice, the more I tend to scream. So, the answer is less energy and volume. If you have the opportunity to use in-ear monitors, this is much better than stage wedges and can be very helpful to your voice.

Another factor can be improper breath management (see the four-part series section “The Appoggio Breathing Technique”). Proper breathing mostly has to do with having a high chest and sternum, take complete breaths, and make sure that during the inhale that the expansion is happening as much in the lower ribs and oblique area of your sides as it does in the medial, or front, of your stomach. Also, remain in the inhalation position as long as possible.

Finally, you may not have developed your higher range enough yet. And this happens by first correctly developing your middle range and carrying that technique into the higher range.
Vocal Health: Protecting The Voice (Part 3)

Tension from Difficult Phrases

In the last couple of sections, we talked about how tension is created for the vocal folds in the upper range of the voice, due to elongation and stretching of the folds. This is natural, as we mentioned, but when belting occurs or extending time in the upper range, or even simply singing with too much forceful energy and volume, the vocal folds can experience strain and sometimes swelling.

So what I’d like to add here is an exercise that you can use to help make longer, more difficult songs, or phrases in songs, more manageable. This may help you extend your upper range, but will primarily help you with correct breathing and diminishing fatigue.

Finding the trouble areas is the first part. The temptation may seem to be to sing the trouble parts and phrases over and over until you get them down. This is not the way to go. This will increase vocal fold tension as well as frustration.

The best way to tackle touch phrases is to break them into smaller sections and work on them individually. Once you’ve worked on and nailed all the parts individually, then you put a couple of phrases together and work on them. Continue doing this until the phrase is complete and back together. At that point, you shouldn’t have trouble with that particular phrase anymore.
That’s the overall; let’s talk about how to work on the phrases when you first break them apart. At the end of each short phrase add an onset or two (an onset is, for example, using a quick, “Ha”. This will part the vocal folds, taking the tension off of them and the clean abduction (parting) will create a correct onset for the subsequent vowel, which sets the stage for the rest of the phrase). Then add a short, quiet inhale for breath renewal between the two sections. Make sure that each note is full and vibrant before moving to the next phrase. This process should relieve the weightiness of the phrase.

This exercise can be done several times per day in short intervals, with rest in between. It may take weeks to work through some of the more difficult phrases, but you might possibly see change within a few sessions or days.

Also, since it’s not always just the phrase itself that is causing the problem, it’s a good idea to do the same routine for the few phrases before the problem phrase.
Vocal Health: The Singer’s Diet

Vocal Health and Diet

A singer, like any athlete (many argue that the singer is an athlete), does well to watch their diet and pay attention to their health. I’m sure this comes as no surprise.

Maintaining regular exercise, 30 minutes to an hour 3-4 times a week, will definitely help you to sing better. It will particularly effect your breathing, which is one of the main keys of singing well and beautifully. Excess weight makes breathing noisy, which doesn’t lead to free singing. Silent breath renewal in between sung phrases is the goal.

But there is no specific singer’s diet, day-by-day. Healthy eating for healthy living is all that is required as a singer. However, there are certain foods that should be avoided as a singer, especially the day of, and the day before, any type of singing performance.

The main goal is to avoid any foods or drinks that will dry you out. Proper hydration is key for good, free singing. That is why you will notice the serious and professional singers drink tons of water. This not only hydrates your body and throat, but it also flushes out impurities, phlegm and unwanted bacteria in your vocal tract.

Foods that will dry you out include anything fried, salty or spicy (I know, everything good!). Olives are also on that list. Unfortunately,
tea is on the list as well. I know it’s popular for singers to drink tea with lemon and honey, but tea contains tannin (as does red wine), which will dry you out. And lemon is an astringent, which may get rid of some superficial phlegm, but the acidic property isn’t necessarily good for your throat and vocal folds (cords). Honey may temporarily soothe the throat but no evidence suggests that it has any healing properties. Herbal teas are definitely safer and don’t dry you out like caffeinated teas.

Coffee is another one that should be avoided. Coffee, like tea, is a diuretic, so it will dry you out, too. Worse than that, though, is the caffeine. It has much more caffeine as tea, and caffeine acts like a steroid on your voice so that you can’t tell if you are singing too hard (pushing, forcing) and damaging your vocal folds.

Alcohol is yet another one. It can dehydrate you for up to three days, and it dilates blood vessels, which isn’t that big of a deal except when you are singing, especially singing hard and for extended periods of time. Dilated blood vessels means that the blood thins and comes to the surface, which could potentially cause hemorrhaging in your vocal folds.

Those are a few things to look out for.
Almost anything will be forgiven, as far as a singer goes, except bad pitch. Your tone can be weird; your technique can be terrible; your enunciation could be garbage. All will usually be forgiven, but when a singer sings off key, especially for an extended period of time (2-3 seconds is extended enough!), people no longer want to listen. And when this happens in a live performance, particularly with a well-known artist, people will often refuse to listen to, or follow the career of, that singer anymore.

But what can you do about your pitch? It’s not like you can just do vocal exercises, right? I mean, you’ll just be singing scales, but off key. We’ll come back to where vocal exercises come in, but first I want to talk about what is going on, technically, in the voice producing bad intonation. That will give you a good idea what to look for, avoid and work on.

First of all, you may not think that you sing off key, and maybe you don’t. But, singers who have a great ear for intonation when listening to others may not necessarily be able to gauge whether they sing off key. This is because the vibration senses that are felt when you sing, registering inside of you through the conduit of your bones, can sometimes be misleading to the one singing. He or she may mistake the inner sound with what is actually coming out of the mouth.
This is the same idea as when you hear your voice recorded for the first time. You think to yourself, “That’s what I sound like?!” What we hear internally, and what others hear, is quite different. That’s not to say that you sing off key if you think you don’t, of course. But it would be worth singing in front of someone who will be honest with you, so that you can find out for sure and begin working on it.

Okay, I want to give you a couple of quick sources of faulty intonation and then I’ll give you the major cause in the next section and then talk later about how vocal exercises come into play.

One of the reasons that singers go flat is when singing is emotionally internalized. This partially has to do with the discussion above. When the singing relies to heavily on the internal sound and vibrations, flat notes can be the result. This can also be a result of nervousness or a lack of connection to the song.

Another reason is related to acoustic energy in your upper range, which is to say the amount of breath support you have, as well as your breathing technique in general. Singing higher notes requires more energy and breath, and when those are lacking, the result is flat notes.
Intonation (Pitch): What Causes Pitch Problems? (Part 2)

Vocal Tract Shaping, the IPA and Tongue Position

In the previous section we talked about how many things would be forgiven when listening to a singer, except consistently faulty pitch. This is one thing in singing that is difficult for the listener to bear. So, I gave you a couple of the sources of incorrect intonation in the last section, and I want to give you a bunch more here, so that you can evaluate your own voice and improve your pitch, if necessary.

I spoke of acoustic energy in the last section and want to give you an idea of what is meant by that. Acoustics are the production and transmission of sound and its effects. It is basically the science of sound. Good acoustic energy is the goal for beautiful singing. So, when I speak of energy, I’m not talking about force, as if proper acoustic energy were produced by sheer strength or might. The opposite is often true. Proper singing should be somewhat effortless, certainly free.

Proper acoustic energy, and pitch, is based largely on vocal-tract (pharynx, soft palate, lips and tongue) shaping. If the shape of the mouth and pharynx don’t match the intended vowel, pitch will fluctuate, either flat or sharp. So, without giving a full lesson on the International Phonetic Alphabet (IPA) let’s talk about mouth and tongue positioning for the front and back vowels.
Some of the front (lateral) vowels include: /i/, as in “keen,” /ɪ/, as in “thin,” /e/ as in “chaos” and /a/ is in “Task”. When voicing front vowels your mouth is in a more horizontal shaped position, and the front section of the tongue, while always keeping the tip resting against the back of the inner bottom teeth, needs to be raised relatively high.

Some of the back (rounded) vowels include: /o/, as in “note” and /u/, as in “fool”. With the back vowels, the front portion of the tongue (not the tip, which remains in its position against the lower teeth) needs to be lower than with the front vowels, whereas the back portion of the tongue is more elevated. Some of the back vowels, those listed above included, have a tendency to go flat when tongue and mouth position are not properly shaped.

I continue to talk about the cause of pitch problems in the next section, but let me make mention of vocal exercises here. First of all, there are two types, warm ups and strengthening exercises. Warm up exercises should always be done first, of course. But strengthening exercises will do just that, strengthen the muscles in your voice and create muscle memory and a more superior control over shaping vowels and vocal fold closure. This, in turn, will help you sing with better pitch, so it’s important to continue doing your vocal exercises daily.
Intonation (Pitch): What Causes Pitch Problems? (Part 3)

Acoustic Energy and Airflow Management

For the last couple of posts we’ve been talking about some of the reasons that intonation goes sour. We talked about how internalized listening could be one of the reasons. When a singer relies heavily on the sound that he or she hears, which is largely depended on the vibrations in the chest and sinuses as well as bone conduction, there could be an incorrect understanding of the actual pitch that is being produced, that others hear.

We also said that a loss of acoustic energy, particularly in the upper range, is often another issue. And this is corrected by a proper breath support system, accompanied by steady airflow.

Then we said that most pitch problems lie with faulty vocal-tract shaping. That is to say that the way that vowels are shaped while singing directly affects pitch. The position of the tongue is key, since it is the major component of vocal-tract shaping.

And finally, we said that since vocal strengthening exercises strengthen your voice, and give you greater control, they are a great force against faulty pitch and should be practiced daily.

I wanted to continue the discussion and give you a few more things to look out for that are frequent culprits when it comes to pitch problems.
The first one has to do with energy, which is another way of saying proper breath support. In the first post I talked about how acoustic energy is often lost when singing higher notes. This has to do with a lack of glottal (vocal fold/cord) closure and is essentially a result of running out of air too early. That’s why it’s important to have a good breath support system in place (see “Breath Management” section, particularly the four-part series called “The Appoggio Breathing Technique”). Also important, which takes far less time to establish, is mapping out the song you plan to sing and seeing where your breathing points in the song will be. This will assure that you have enough breath support to carry you through each phrase and particularly the longer and/or higher phrases.

Another common problem, one that is also corrected by a proper breath management system is instable or fluctuating airflow at the onset, of the beginning of a phrase (See “Silent Breath Management” series section part 1 & 2, where I laid out several different onset exercises to help you immediately turn airflow, after inhalation, into tone without fluctuating the breath pressure).

There are a few more causes of singing off-key. In the next section, we’ll continue the conversation of intonation and talk about a few other causes and solutions of faulty pitch.
Intonation (Pitch): What Causes Pitch Problems? (Part 4)
Forcing, Throat Singing, Fixed Mouth Position and Depleted Air Supply

In this final section about intonation problems, singing off-key, I wanted to give you a few more causes and solutions, so let’s just right into it.

I’ve talked some about pressed phonation, which is a fancy way of saying forcing or pushing, even belting. This happens when amassed air pressure hits excessively resistant vocal folds (cords). This happens most often in the transition points from one register to another where the notes are more difficult to hit.

All that means really is that when you try to push or force a note that is in a higher range, or in the transition range from one register to another, a ton of air is forced through your vocal folds, while they’re remaining closely together. This results not only in a forced sound but also often causes the pitch to go sharp, above the intended note. By pushing that hard, the note is frequently overshot.

The way to avoid this is with steady airflow. You shouldn’t need to force air out or push the belly inward. With proper breath technique and onset, this isn’t necessary.

Another reason that notes tend to go off-key is when singing is done from the throat rather then the diaphragm, and the mouth becomes the primary resonator. Again, this is corrected by a proper breath-
management system. Singing from the throat will only add strain to your voice and not resonate well.

An additional reason for faulty intonation is when the mouth and pharynx stay in the same position for both high and low notes. If this is the case, then the energy needed to voice the higher notes is not helped by the vocal tract, so the pitch falters. And the same is true for the low notes. If the mouth and pharynx remain in a fixed position the lower notes come across as dull and flat. During lower notes the mouth should gradually close so that proper vowel definition can result. Because, remember singing and speaking go hand in hand. Whatever you would need to do to speak certain ranges, you will need to do similarly while singing, as far as vowel definition goes. For extremely low notes, though, you will need to lower the jaw, closer to the high note mouth position, but this is also true with speaking.

The final reason for sour notes has to do with running out of air at the end of a long phrase. Sometimes, not matter how good your breath-management is, longer phrases will deplete your air supply. With depleted air the chest and sternum begin to fall, rib cage collapse and abdomen rapidly contracts. None of these things help pitch or free singing. So, it is increasingly vital that you keep your chest high in the case of depleted air. This won’t give you more air, of course, but it will help you avoid the other pitfalls I mentioned and will help work toward better pitch.
Conclusion

Well, I sincerely hope that this has been helpful to you. I know that some of the language is technical, but this information applied should help you get to any level of singing that you want, whether you are a casual singing or professional. I wish you all the best!

Godspeed,

Aaron