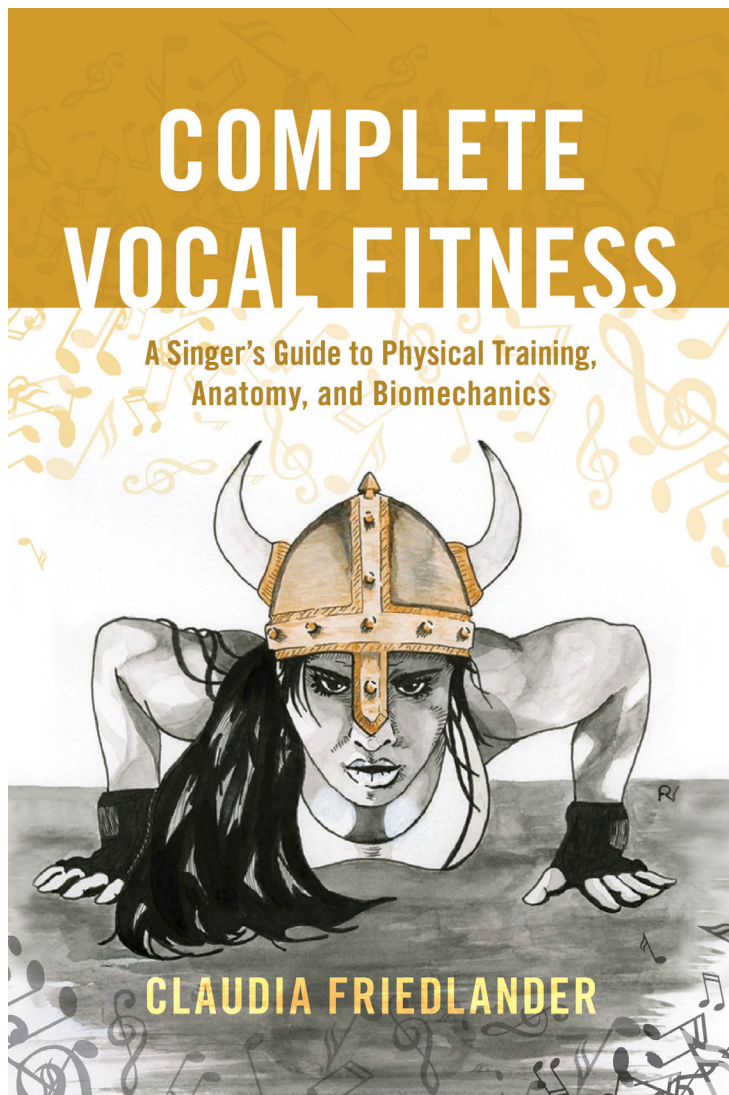


Complete Vocal Fitness: A Singer's Guide to Physical Training, Anatomy and Biomechanics



“Claudia Friedlander has a deep understanding of the biomechanics of singing, and she does a beautiful job explaining it to the rest of us. For singers and teachers looking for ways to improve vocal technique, her book is the perfect place to start.”

— **Deborah Voigt**, internationally renowned soprano

“Performers of opera and musical theater are, in fact, singing athletes. Dr. Friedlander has written a guide to embracing a lifestyle that will enhance not only physical health but also the health of one’s instrument. Every young singer should own a copy of this book!”

— **Jennifer Rowley**, Metropolitan Opera soprano

“Finally, here is a book that treats singing as the authentic endeavor that it is. It offers step-by-step instructions for identifying and then correcting physical imbalances through targeted stretches and strength-training exercises. If you are serious about singing, this book should live on your piano!”

— **Rod Gilfry**, baritone and associate professor of vocal arts, University of Southern California’s Thornton School of Music

Voice teacher and fitness trainer Claudia Friedlander uses sports science principles to revolutionize vocal pedagogy and empower singers to regard themselves as the athletes they truly are. In her book *Complete Vocal Fitness: A Singer’s Guide to Physical Training, Anatomy and Biomechanics*, Friedlander describes the potential benefits of sport-specific training for opera singers. “I asked, ‘What are the specific physical requirements for excellent opera singing, and how can I help singers build the strength, flexibility, coordination and stability to best fulfill these requirements while avoiding any counterproductive effects?’” Dr. Friedlander explains. “A singer who pursues a sport-specific training and nutrition regimen designed to optimize their body for peak performance can improve their singing while also safely achieving the aesthetic results they desire.”

A singer’s instrument is their body. What makes the acoustic human voice so arresting and impactful is its ability to channel the thoughts, feelings and sensations experienced by the singer directly to the listener. This requires not only outstanding technique and musicianship but also a well-calibrated instrument. Dr. Friedlander applies the techniques developed by fitness professionals for optimizing athletes’ alignment, stamina and stability to help singers develop the coordination and physical energy they need to deliver transcendent performances. Through workshops designed to help singers design customized sport-specific exercise regimens, she is educating singers, voice teachers, and the opera community about the relationships between physical fitness, body composition and vocal excellence.

Form follows function. A singer who trains both their voice and their body for peak performance will cultivate an instrument that beautifully reflects their artistry. The era of the stereotypical fat opera singer has drawn to an end. With the right tools, singers can pursue fitness regimens designed to empower their voices while also ensuring they exude grace, strength, and balance.

from Chapter 1: Alignment

Optimal Alignment

The spinal column consists of twenty-four vertebrae, the sacrum, and the coccyx. The top seven vertebrae comprise the cervical spine; the middle twenty-three comprise the thoracic spine; the lower five comprise the lumbar spine. A healthy spine has three natural curves when viewed from the side.

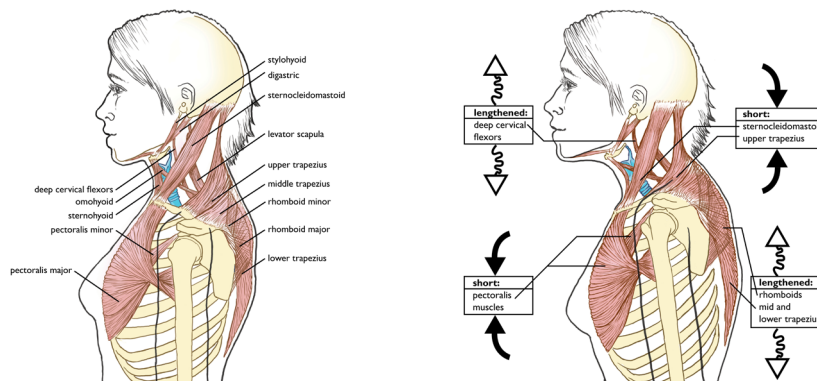
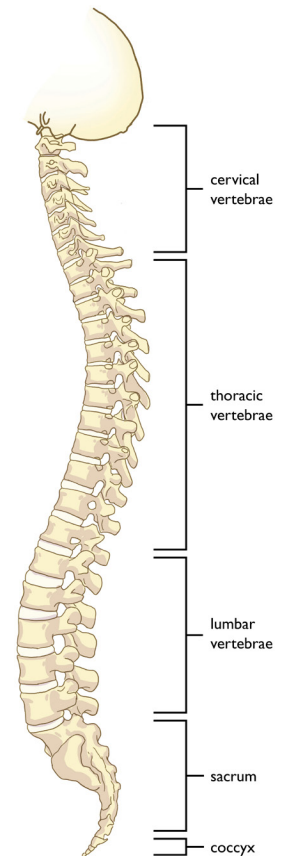
An anterior curve of the neck, or cervical spine. The cervical spine impacts range of motion for your larynx and articulators as well as the size, malleability, and integrity of your resonating cavities.

A posterior curve of the upper torso, or thoracic spine. The thoracic spine governs range of motion for your ribs and diaphragm and therefore influences both lung capacity and breath management.

An anterior curve of the lower back, or lumbar spine. The lumbar spine also impacts breathing, as the crura of the diaphragm originate in the lumbar vertebrae. It also supports your core and lumbo-pelvic-hip complex and is therefore vital for stabilizing movement as well as breathing.

Rather than stacking in a straight line, our vertebrae have evolved into this curved arrangement, each cushioned by intervertebral disks, in order to absorb the shock of various forces that impact our bodies. When faulty movement or sedentary habits cause these curves to become either exaggerated or straightened out, our internal and external mobility are compromised and our ability to neutralize shock is impeded.

Dr. Vladimir Janda's research in the late 1970s continues to serve as the foundation for the means many medical and fitness professionals use to assess and ameliorate the muscular imbalances responsible for postural problems. Janda identified three major distortion patterns. They include upper crossed syndrome, in which, the head protrudes forward of the neck and the shoulders rotate internally.



The above left illustration above shows healthy alignment supported by optimal length/tension relationships between the muscles of the upper torso and neck that support breathing and phonation. The above right illustration shows how the muscular imbalances characteristic of upper crossed syndrome distort alignment in this crucial area. The deep cervical flexors are weak and lengthened, unable to balance out tensions exerted on the neck by a tight upper trapezius and sternocleidomastoid. The rhomboids and middle/ lower trapezius are weak and lengthened, allowing the shoulders to rotate internally, the sternum to collapse, and the muscles of the chest to become chronically tight. These conditions cause the head to protrude forward, restricting range of motion of the laryngeal cartilages at the cricothyroid joints; this limits overall range, particularly access to free high notes. The various strap muscles connecting the larynx to the sternum are shortened, which interferes with laryngeal stability. With the shoulders rounded in and sternum compressed, the ribs cannot fully expand, reducing lung capacity as well as strength and coordination in many of the muscles governing breath management.

While minor distortions and imbalances may create no problem whatsoever for the average human, serious athletes must strive to resolve them in order to achieve peak performance. A baseball player whose shoulder rotates internally will not be able to throw the ball as far or as fast as he or she would under more optimal conditions. A swimmer with weak gluteal muscles will not be able to kick with full range of motion through their hips. A singer who fails to address such muscular imbalances is essentially playing a dysfunctional instrument. The dysfunction may manifest visibly as only a subtly exaggerated spinal curvature or asymmetry, but it will almost certainly impact his or her singing in one or more ways.

Janda's three distortion patterns are useful examples of how common patterns of use can throw alignment out of balance. Resolving these distortions is key for fulfilling athletic potential of any kind.

from Chapter 2: Breathing & Chapter 6: A Singer's Workout Regimen

The Components of Vocal Technique

I define vocal technique as a means of developing and coordinating the physical components of your instrument, as distinct from dramatic and musical expression. While we cannot entirely separate technique from expression and musicianship, it is useful to think of technique as the application of principles of movement and motor learning to build skill in the areas of:

- Breath management
- Phonation
- Resonance
- Articulation

These are the essential elements of a comprehensive vocal technique. While approaches to technique may differ and teachers vary the ways they prioritize, emphasize and integrate these elements, an effective technique must develop them all.

Breath Management

Breath management includes the ability to inhale, exhale, and regulate subglottal breath pressure in ways that are optimal for singing. You must learn to inhale fully, swiftly and silently without extraneous head, neck, or shoulder movement; release your breath completely and continuously while maintaining good alignment; and regulate your subglottal breath pressure through smooth, continuous coordination of the structures governing inspiration and expiration.

Phonation

Phonation is the actual sound production of singing – the vibration of the vocal folds. Coordination in this area means cultivating the ability to allow your vocal folds to come together evenly with each vibratory cycle without generating excessive resistance or tension at your glottis; maximizing freedom and full range of motion of your laryngeal cartilages in order to access your fullest possible range; developing seamless registration and dynamic control; and producing an organic vibrato or creating a straight tone, as desired.

Diana Soviero, Soprano & Voice Teacher

When I was young I didn't have all of the distractions that singers contend with now; when I was studying, I just studied. And we had so much more time. It isn't the students' fault – we're just in a different era now. So when I'm teaching, that hour goes so fast. I have to listen so intently. Otherwise far too little attention will be paid to the fine details, and there are all these little notes that will just go unsung. I have students pursuing master's degrees who can't perform a trill or initiate a chromatic scale correctly. It's very frustrating for me, because I would have been thrown out of my teacher's studio if that had been me.

I would spend hours every day practicing my legato and asking, how does my breath move when I go through the passaggio? What do I do if I feel I can't go further, how far up can I go? And I would challenge myself. Can I trill on a minor second, a major second, and can I walk up the stairs to my bedroom while continuing to sustain a trill? You have to know how to sail up through the passaggi, you need to establish chiaroscuro, you need to know what to do with your breath.

This was our training. I had to do it, and I worked my head off to do it. Because I didn't want to have to worry about singing – I wanted to have the freedom to act, to become a great actress and not worry about my voice. You can't afford to think of vocal things when you are performing.

Resonance

Coordinated vocal resonance means the ability to shape the vocal tract, allowing it to morph and expand as necessary in order to optimize vocal quality and projection throughout your range and on all vowels. Skill at resonance requires cultivating strength, flexibility and full range of motion throughout the structures that shape the vocal tract.

Articulation

Skill at articulation means the ability to produce any phoneme in any order throughout your range in all languages, so as to facilitate rather than interfere with free phonation. While your jaw, tongue, lips and soft palate are all capable of moving fairly independently from one another, the requirements of vernacular speech, ingesting food, and other things we do with our mouths create habits resulting in entanglement and imbalance in your articulators. Singers must retrain and optimize coordination in this area.

from Chapter 4: Laryngeal Anatomy

Eliminating Extraneous Movement

In performance, all of your movements must emanate from your characters and the stories you are telling. By definition, any movement you engage in that does not will conflict with your singing and be experienced as a distraction.

When singers engage in extraneous or habitual movements that detract from their performances, it is usually due to the need to spend more time physically defining their characters. The impulse to move is usually a good and positive thing, but allowing that impulse to manifest unconsciously will yield distracting and counterproductive results. While the ultimate solution has more to do with actively embodying your character than with curbing extraneous movement, I feel that it is important to describe the categories of unintended movement that plague singers and to identify their probable causes. Becoming aware of these common behaviors is the first step in supplanting them with a more intentional dramatic approach.

Unconscious Physical Movement

When singers rhythmically shift their weight from one leg to the other, grasp at the seams of their skirt or trousers, rotate their head from side to side, or wiggle their fingers, it is likely that they are experiencing an impulse to move but failing to channel it in a way that effectively expresses their character. Such unconscious movements may be motivated in part by nervous energy, but even in such a case your ability to channel your impulses into movements that express your character will improve your presentation and likely calm your nerves as well.

Unconscious Facial Expressions

It is essential that you remain focused and present in your eyes while performing and that your facial expressions reflect your character's thoughts and emotions rather than self-criticism or unconscious habits. For example, raising your eyebrows will make you look surprised or anxious; depressing them will make you appear angry or concerned. If these are not the emotions you wish to express, raising or depressing your eyebrows will distort your message. Your eyes must give us the impression that you are seeing everything that your character would be seeing, so if you focus internally, close your eyes, stare vacantly, or allow your eyes to dart around the room, this will also diminish your performance.

Movements that Reflect Technique or Musical Phrasing

With the exception of those rare moments where a character is called upon to sing a song (these moments

Anne Baltz, Founder & Former Artistic Director, OperaWorks

If singers are to portray real people experiencing real emotions, they need to look and sound like real people. To achieve this, they must learn to integrate all elements of performance into their singing – the music, the text, the drama, the way they physicalize their characters, and especially their imagination. Neglecting any of those elements robs the singer of their ability to fully inhabit a role. For example, when they understand how melodic shapes derive from text inflection, their bodies will also express the text as one would in real life.

The process of learning arias and art songs tends to begin with the melody and words, with attention to “acting” coming last, if at all. Voice lessons and coachings, particularly for young singers, tend to focus on the production of sound. Once they have “learned how it goes” in this way they think that they have learned the piece and they don't realize that this is not enough. I have attended many recital and opera performances at all levels of the business in which the focus seems centered on vocal perfection or prowess, while meaning is either absent or layered on as an afterthought. Without background research and deep thought about a text, singers cannot possibly bring their own point of view to their performances.

are called diegetic music), classical singers must sustain the illusion that they are communicating naturally. Therefore, gestures relating to vocal technical events and movements that mimic the flow of the musical line interfere with this illusion. The sweeping arm movements that singers often engage in to encourage continuous breath release can be helpful in the practice room, but they do not belong on stage. As useful as you may find it to physicalize the arc of a phrase you are learning, when the time comes to perform it you must trust your voice to give shape to the melody and allow the rest of your body to express your character.

Rather than seeking to inhibit extraneous movement, singers can address nearly all of these issues by learning to actively engage in intentional movement. Take inventory of any physical habits that may encroach on your dramatic presentation and channel your impulses into movements that will define, rather than compete with, your characters.

from Chapter 5: Articulation

Before and During Your Audition

How you present and conduct yourself at the audition venue can have a significant impact on the impression you make, not only on the organization but also on your peers.

Dress for Success

Your audition attire should be comfortable and express your personality without distracting from your artistry. It must facilitate breathing and movement. Avoid formalwear and aim for a professional yet accessible appearance. Chapter 17 will provide further thoughts on cultivating your overall look.

Arrive Early and Ready to Perform

Plan on arriving half an hour in advance of your scheduled audition time. If the audition is too far from where you live to be able to warm up at home, rent a practice room in or near the audition venue. Even when the organization for which you are auditioning provides a warm-up space it is often best to make your own arrangements, as the space they provide may end up being crowded and noisy. Never warm up in restrooms, stairwells or other common areas at the audition venue.

When you arrive, check in with the audition monitor (if there is one). Then wait quietly for your appointment. Keep conversations to a minimum and do not talk on the phone. This demonstrates respect for your fellow singers, who need to focus on their own processes and avoid using their voices to excess, and also helps to keep the volume down in the hallway so that it doesn't bleed into the actual audition room. When possible, do try to have a brief chat with a singer or two after they complete their auditions to inquire about the size and acoustics of the room, the structure of the audition panel, and how many selections they were asked for. Conduct these inquiries quietly; after you have sung, offer to share the same information with those who are waiting to sing.

If due to unforeseeable circumstances you find that you are running late or must cancel, do your utmost to notify the audition panel. They will appreciate the opportunity to re-order their schedule or offer your slot to another singer – they will not appreciate a no-show.

Have Your Materials in Order

Unless otherwise instructed, bring a current headshot, résumé, bio and repertoire list to your audition. The panel may already have your materials, but it is a good idea to have copies with you in case they do not. If there is an application or pianist fee due at the time of your audition, have it at the ready. Your binder should be well organized with all selections clearly labeled.

Be Poised and Gracious

When you enter the audition space, greet the audition panel with warmth and enthusiasm. Make eye contact. Hand your materials to whoever is charged with accepting them. If their pianist will play for you, hand them your audition binder open to your first selection. Remember that an audition is a performance – making a strong entrance is just as important in auditions as it is when you take the stage in recital.

Allow the panel to take the lead where any conversation is concerned. Be prepared to answer any questions they ask about information in your résumé, your repertoire, people you've worked with, and career goals. If you know someone on the panel, it is appropriate to say hello to them and acknowledge the relationship, but do so mildly and respectfully.

Joyce DiDonato, Mezzo-soprano

Auditions, whether in person or on video, must be exceptionally well prepared. Great language preparation, great phrasing, musicality, presentation – it should look like you put some time and effort into it. You want to be dressed in a way that presents yourself as best you can. I don't believe this thing that men have to dress this one way, women have to dress this other way... Dress as yourself. You want to look like you're ready to present yourself as someone who is serious about this business, ready to be listened to. Of course, all the vocal things have to be there. They have to represent where you are today. And if you're not ready, take the time until you feel like you have a good representation of where you are today. All of that is a fundamental starting point.

The thing that I want you guys to remember is that we don't need to see an imitation of me, or Leontyne Price, or Cecilia Bartoli or Juan Diego Flórez. I tried, and it turns out that I'm a terrible Bartoli, but I'm a very good Joyce. Audition panels aren't against you. They want you to be great. So walk out there knowing that they are on your side, and that they are rooting for you to be brilliant. It's a very important mindset to have. And then, be brilliant! Sing what you sing better than anybody else, and the things that you love. And when you're in that audition, remember why you love to do it. Keep coming back to why you love it, and you'll be fabulous. And when you're not, when you're having one of those stumbling moments, just know that it's going to be one of your greatest learning experiences. The gold happens in those tough moments. So be patient with yourself.

About the Author



Claudia Friedlander is a voice teacher and fitness expert based in New York City. Born in Queens and raised in New Jersey, she began her musical studies as a clarinetist. Her passion was fueled by her early experiences playing in the Young Artists Orchestra at Tanglewood under the batons of Seiji Ozawa and Leonard Bernstein. This led to private studies with Richard Stoltzman, a Master's degree in Clarinet from Peabody Conservatory, and a brief stint as the principal clarinetist of Orquesta Sinfónica del Estado de México.

Shortly after completing her undergraduate studies at Bennington College, she was encouraged to study singing by conductor Blanche Honegger Moyses. She sang while continuing to play her instrument, earning a Master's degree in Voice at Peabody simultaneously with her clarinet degree. Eventually, her fascination with the physiological process of singing eclipsed her passion for clarinet. In 1995, she began doctoral studies in vocal performance and pedagogy at McGill University, which she completed in 1999.

In 2002, Dr. Friedlander moved to New York City, apprenticed herself to renowned pedagogue W. Stephen Smith, and established her voice studio. In her first few

years of teaching, frustration with her inability to address the mechanical dysfunction some of her students possessed in a methodical and rigorous way motivated her to study kinesiology. After receiving her certification as a personal trainer from the National Academy of Sports Medicine, she became inspired to apply the concept of sport-specific training to the professional voice.

Dr. Friedlander has presented workshops on vocal fitness for The Voice Foundation and the Performing Arts Medicine Association, and was an invited panel discussant on health and wellness for OPERA America. Her students have performed on Broadway, and at leading opera houses including The Santa Fe Opera and the Metropolitan Opera. Her first book, *Complete Vocal Fitness: A Singer's Guide to Physical Training, Fitness and Anatomy*, was published by Rowman & Littlefield in June 2018. She is the author of the monthly column "Musings on Mechanics" for Classical Singer Magazine as well as a widely read and cited blog on vocal technique and fitness, The Liberated Voice. In 2008, she joined the faculty of the Weill Music Institute at Carnegie Hall, where she developed, in collaboration with Joyce DiDonato, *The Singer's Audition Handbook*, an interactive online career development guide for young singers that will be published in book form in November 2019.