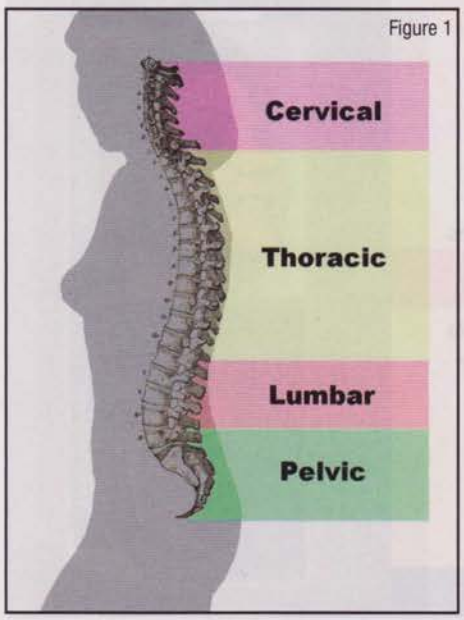
Don't Let Your Backbone Hold You Back!

BY CLAUDIA FRIEDLANDER

You have spent years establishing your current posture. But is it the posture that will best serve your singing voice? Learn what your best posture looks like and how you can retrain your body to find and keep that posture.

Good alignment is essential for vocal development and performance. A well-aligned spine facilitates free laryngeal movement, full breathing, and the ability to sing with consistent technique regardless of your stage director's demands. In the course of day-to-day living, however, most people develop common postural distortions that limit technique or require compensations that can be fatiguing. In this column I will discuss the role alignment plays in technique, describe common postural distortions and their impact on singing, and offer suggestions for improving alignment.



A healthy spine has three natural curves when viewed from the side:

- Anterior curve of the neck, or cervical spine—Impacts range of motion for your larynx and the size and integrity of your resonating cavities.
- A posterior curve of the upper torso, or thoracic spine—Governs range of motion for your ribs and diaphragm and, therefore, highly influences both lung capacity and breath management.
- An anterior curve of the lower back, or lumbar spine—Supports your core musculature and is vital for stabilizing breathing and movement.

The illustration in fig. 1 represents "neutral spine"—the spinal column at rest, with these curves in healthy relationships with one another. "Neutral spine" or "ideal posture" is often described as a position wherein a plumb line descending from the earlobe to the floor would pass through the tip of the shoulder, the high point of the pelvis, and the knee and would reach the floor just in front of the ankle.

The first figure in the series in fig. 2 depicts healthy alignment, while the others show a variety of distortions.

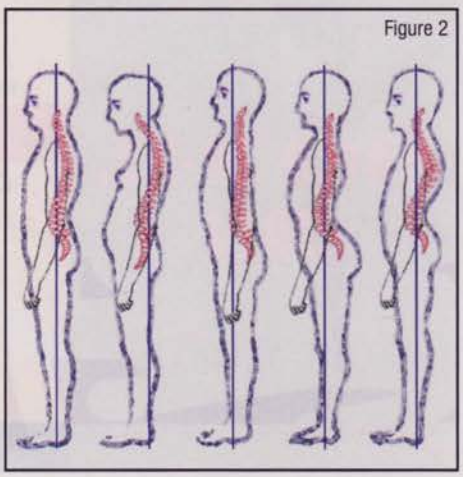
Dr. Vladimir Janda's research in the late 1970s serves as the basis for how most medical and fitness professionals assess and ameliorate muscular imbalances responsible for postural problems. He identified two major distortion patterns:

- In **Upper Crossed Syndrome**, the head protrudes forward of the neck and the shoulders rotate in, as exemplified by the second figure in fig. 2.
- In **Lower Crossed Syndrome**, the pelvis tilts forward, exaggerating the curve of the lower back and usually also leading to exaggerated curves in the upper back and neck to compensate, as in the last figure in fig. 2.

If you consider the potential impact these two common distortion patterns have on vocal function, you'll understand how important it is to be proactive about your posture.

Upper Crossed Syndrome

When the head protrudes forward, it restricts movement of the laryngeal cartilages at the cricothyroid joint. This limits overall range, especially high notes.



The various strap muscles connecting the larynx to the sternum are shortened, which further limits laryngeal movement. When the shoulders round in, the ribs cannot fully expand, lowering lung capacity and reducing strength and coordination in many of the muscles governing breath management.

Lower Crossed Syndrome

When the pelvis tilts forward, it creates weakness and imbalance throughout the muscles of the core, compromising the stability of the breathing apparatus. If the curve of the lower back is exaggerated it affects the movement of the diaphragm because the diaphragm is tethered to the lumbar vertebrae. As with Upper Crossed Syndrome, exaggeration of the curve in the upper back restricts range of motion through your ribs. An exaggerated curve in the neck limits laryngeal and jaw movement and distorts access to the resonating chambers.

As you can see, any distortion in the natural curves of your spine will impact your singing, and most people develop aspects of one or both of these patterns. Long periods of sitting during school years, a commute in an uncomfortable car or train, a cheap mattress in your freshman dorm room, or old injuries that took a while to heal can all lead to postural problems. To realize your full potential as a singer, you must address them.

Most books on vocal pedagogy, old and new, emphasize good alignment as foundational for the development of vocal technique. They describe what it looks like with great physiological specificity and beautiful illustrations, but they offer very little advice for how to cultivate this crucial aspect of singing. When I first studied singing and knew nothing about anatomy, I thought I was supposed to try to hold and carry myself in a way that would make me look more like the illustrations in my pedagogy books. I'm now pretty sure that only made things worse!

Imperfect alignment results from a pattern of muscular imbalances cultivated through years of habitual self-use. It took you a while to develop the alignment you now have, and it will take some time and focused work to transform it into what you would like it to be. I recommend a three-pronged approach:

- Increase kinesthetic awareness
- Relieve areas of stiffness and tension
- Strengthen areas of weakness

Kinesthetic Awareness

Change always begins with awareness. Your posture and movement habits are so familiar to you that they are extremely difficult to notice, so you will need to cultivate a deep awareness of problematic patterns before you will be able to replace them with better ones.

There are many somatic practices that are highly effective for increasing kinesthetic awareness. Alexander Technique is particularly useful for singers because it begins by releasing holding in the neck and head and was originally created to alleviate vocal dysfunction. Michael Hanko's article "Beyond Posture: The Alexander Technique for Singers," from the August 2010 issue of *Classical Singer*, provides a good introduction. Other practices that enhance kinesthetic awareness include Body Mapping and Feldenkrais.

If you do not have access to professionals in any of these fields, a regular sitting meditation practice can also enhance your kinesthetic awareness and help to make your alignment and movement choices more conscious.

Relieving Stiffness & Tension

If you want to improve your alignment, you must improve mobility in the various structures that are holding you in your default position. This means both stretching muscles that have become short and tight and also restructuring

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the web of connective tissue that stabilizes and integrates your musculoskeletal system.

In Upper Crossed Syndrome, the muscles that need to be stretched and lengthened include the upper trapezius, levator scapulæ, sternocleidomastoid, scalenes, and latissimus dorsi. In Lower Crossed Syndrome, shortened muscles include the calf muscles, hip flexor complex, hip adductors, latissimus dorsi, and erector spinæ. You can adopt a regimen of targeted stretches for each relevant muscle group. A basic yoga practice will also do the trick.

Deep tissue massage is a highly effective means of breaking down and restructuring connective tissue. Michelle Latour's article last month, "Getting Rolfed," offered an excellent description of how connective tissue functions and explained why remolding the fascia is important for long-term physical change. A skilled bodyworker is a valuable resource for improving your alignment, but you can also remold your connective tissue through self-myofascial release techniques using a foam roller.

Building Strength

Somatic work and stretches will make it possible for your spine to assume an optimal shape, but you must also strengthen the muscles that will help you effortlessly retain that shape and create new habits for posture and movement.

In Upper Crossed Syndrome, the muscles to be strengthened include the deep cervical flexors, serratus anterior, rhomboids, middle and lower trapezius, and teres minor. In Lower Crossed Syndrome, target the gluteus maximus, gluteus medius, transversus abdominis, internal obliques, tibialis anterior and tibialis posterior.

Designing a strength-training program to target your essential postural muscles requires careful consideration. Note that with the exception of your butt (gluteus maximus and gluteus medius), the muscles that are most vital for correcting postural distortions are not the "glamour muscles" we're usually most eager to pump up at the gym (the six-pack, pecs, lats, and delts).

If you undertake an overall strength training program without prioritizing the correction of postural distortions, *you will reinforce rather than resolve those distortions.* One of Vladimir Janda's major innovations in postural rehabilitation was the introduction of stabilization training to restore balance and function. An exercise regimen emphasizing stabilization of the core and major joints can help establish ideal alignment, which singers should value as an important prerequisite for exercise programs targeting weight loss or muscle growth.

Alignment plays a significant role in every aspect of singing. If, despite diligent and sustained technical work, you're still unable to access your full range, manage your breath adequately, or achieve balanced resonance, it may be due to postural rather than technical imbalances. Fortunately, these imbalances can be systematically resolved.

Like everything else you do to build and maintain vocal technique, good alignment requires regular and focused investment of your time and energy. It's a worthwhile investment. Good alignment not only supports your singing but also improves overall wellness and minimizes the aches and pains that can attend the frequent air travel, unfamiliar sleeping conditions, and interesting staging challenges that are built into your job description.

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