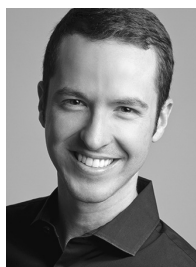


# Vocal Yoga: Applying Yoga Principles in Voice Therapy

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OVER THE PAST DECADE, principles of yoga have become interwoven with contemporary voice therapy and the teaching of singing.<sup>1</sup> Key principles of yoga are successfully integrated into warm-ups, cool-downs, range extension, vocal endurance, vocal projection strategies, and articulatory movements for singers and occupational voice users. Yoga techniques direct attention toward whole body relaxation, body alignment, and breath coordination during various singing and speaking tasks.

The benefits of yoga are described throughout the health care literature. Incorporating basic yoga postures and breathing techniques decreases stress, alleviates depression, anxiety and pain. Yoga may also improve cardiovascular, autoimmune, and immunocompromise conditions.<sup>2</sup> Significant improvements in diastolic blood pressure, dynamic muscular strength and endurance of the upper body and trunk, flexibility, perceived stress, and the individual's overall sense of "wellness" have been reported in healthy adults upon implementation of yoga practice.<sup>3</sup> Furthermore, improved pulmonary function has also been extensively reported.<sup>4</sup>

Various programs focus on incorporating concepts of yoga into voicing exercises as well as enhancing vocal sounds with yoga postures, or asanas. Over the last decade, increasing numbers of professional singers and teachers of singing incorporate yoga into their practice. Several books and articles by experts in voice pedagogy expound upon the benefits of yoga techniques introduced to a singer's lifestyle and daily practice and exercise regimen.

Judith Carman incorporates the Viniyoga style of yoga in her text, *Yoga for Singing: A Developmental Tool for Technique and Performance*.<sup>5</sup> Viniyoga focuses on repetition and coordination with the breath in every practice, physical and mental. Carman describes specific yoga asanas that are helpful for singers to develop ideal balance and postural support for singing. Incorporating sound with physical movement is a focus of Carman's work, so as to help bridge the gap between physical postures and breathing and phonation. The singer's mind is a very powerful force and can sometimes hinder progress and Carman brings attention to the mind and heart, which can help to provide a well rounded approach to physical and mental practice of yoga and singing.

Linda Lister incorporates the Iyengar and Kundalini styles of hatha yoga in to her text, *Yoga for Singers: Freeing Your Voice and Spirit Through Yoga*.<sup>6</sup>

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The Iyengar style of yoga emphasizes alignment of the body postures with use of props to help achieve ideal alignment and the Kundalini style of yoga emphasizes harnessing energy from the spine. In the Kundalini method, this energy is both physical and psychic and affects both the body and the spirit.<sup>16</sup> In her work, Lister provides testimonials from well known music theater, classical, and popular artists, describing how yoga has enhanced their performance careers and lives. As a singer and teacher of singing, one values seeing and hearing the results of a technique in other successful arts.

Heather Lyle incorporates vocal pedagogy, yoga postures and principles, directed breathing exercises, and voice science in her work, *Vocal Yoga: The Joy of Breathing, Singing, and Sounding*.<sup>7</sup> Lyle's work focuses on respiratory exercises for speech and singing, and also provides examples of speech and singing exercises to achieve a balanced voice production. Lyle incorporates aspects of other popular body alignment techniques and programs in her work including Feldenkrais, Alexander technique, and Tai Chi, among others.

The ideals of the bel canto tradition of singing are interwoven with yoga principles in Clare Fanning's book, *Vocal Yoga: Giving Sound to Thought for Vocal Focusing and Vocal Health*.<sup>8</sup> French singer and teacher Kurt Wronke-Marion and his work with balancing the body and voice using bel canto and yoga principles is the inspiration for her text. Fanning's work focuses on developing coordination and control of the mind and body, which leads to freedom and control over the voice.

Mark Moliterno discusses blockages of tension that manifest as obstacles to the creative impulses. In his work Moliterno describes the energy centers of the body, called chakras, which are located at ascending points along the spine and head. Age-old asanas or postures in yoga help to balance the chakras and help the body become more coordinated and efficient for singing and communication.<sup>9</sup>

Common themes of these works are the establishment of focus, creating coordinated body alignment and strength, decreasing unnecessary tension, and opening the mind to creative possibilities, all of which are made possible through a deep connection with mind and body. To date, there exist no published programs that incorporate evidenced-based restorative voicing techniques within the framework of mind, body, and spirit

lifestyle and awareness cultivated through yoga practice. The purpose of this paper is to describe the principles of vocal yoga, its impact on upper airway physiology and its application for individuals with voice disorders.

The concept of mindfulness is essential to the study of voice and voice rehabilitation. As the mind quiets, the body can relax and release tension.<sup>10</sup> A key component of this practice is awareness of bodily misalignment and other physiological states that potentially contribute to the voice problem. Exhaled air drives healthy voice production, and unencumbered exhalation is facilitated through use of proper bodily alignment and posture during all voicing (singing and nonsinging) tasks. Physiological influences of posture are realized systemically, and encompass functions as diverse as cardiovascular, gastrointestinal, swallowing, phonation, and respiration.<sup>11</sup> Disruptions in posture have the potential to cause chronic bodily pain.<sup>12</sup>

A second key concept involves awareness of breathing and breath coordination. Here, experiential rather than conceptual awareness is vital. It is not enough to identify maladaptive patterns of breathing or offer explicit instruction as to how relaxed and coordinated breathing feels. The experiential awareness of breathing, achieved through relaxation and reflection, allows for enhanced learning. This program targets postural optimization, easy onset voice production, breath coordination, and release of maladaptive tension through integration of physiological principles of voice production with basic tenets of yoga practice.

## BACKGROUND AND RATIONALE

Professional voice users often experience adverse emotional responses to a voice disorder.<sup>13</sup> These responses may themselves alter laryngeal biomechanics, potentially contributing to visible tension, sustained contraction of the laryngeal strap musculature, use of ventricular ("false vocal fold") phonation, and a high "resting" position of the laryngeal apparatus. Active use of focused relaxation and breathing techniques seeks to alleviate these physical manifestations of psychological stress.

Vocal yoga is not a fixed practice. It evolves along with the practitioner. The manners in which a younger person and an older person approach yoga and consequently, produce voice, changes over time.<sup>14</sup> Therefore

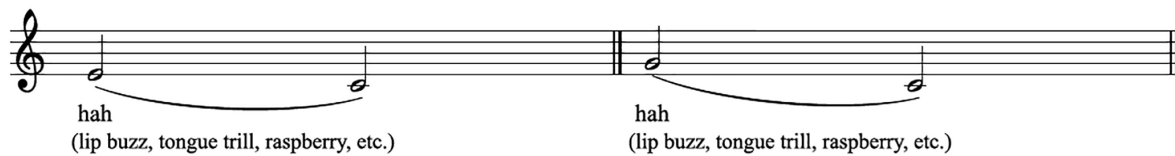


Figure 1. Easy sigh.

it is imperative to recognize these evolutions and allow for adjustments in practice as appropriate.

This program of vocal yoga blends together knowledge of laryngeal and respiratory physiology, vocal health, pedagogy, and performance. In the clinical setting, these concepts and exercises presented have been specifically useful for the direct, behavioral treatment of hyperfunctional patterns of voicing and are intended to aid in the recovery from (or prevention of) vocal injury. This program combines physical movements and postures native to traditional yoga practice, breathing techniques, conscious relaxation, and meditation with traditional voice therapy strategies. Examples of relevant voice therapy strategies include techniques such as yawn-sigh, laryngeal massage, flow phonation, confidential voice, resonant voice, semi-occluded vocal tract exercises, and vocal function exercises.<sup>15</sup>

## PROTOCOL

### Part 1—Centering

The practice begins with conscious relaxation, focusing on awareness of tension. The patient is asked to scan the body for areas tension and progressively relax these areas as able. Centering the mind is also a major focus. The patient is asked to divert his or her attention toward the breath and bodily relaxation.

Breath coordination is analyzed and tension associated with breathing is addressed. Specific attention is placed on allowing the abdominal and low rib cage regions to expand during inhalation and passively contract during exhalation. Ratio breathing (inhaling for a certain number of counts and exhaling for a certain number of counts) is practiced to help improve breath coordination, especially for professional voice users.

### Part 2—The Warm Up

Gentle stretching exercises for the shoulders, neck, back, and chest are performed with emphasis on allowing the body to stretch gently, never forcefully.

Additionally, posture and body alignment bring awareness of the spine and energy centers: Performing a forward bend and rolling up into a standing position, emphasis is placed on feeling freedom along the length of the spine. Focus can be on the chakras or energy centers.

A typical site of muscle tension in patients with voice problems is the neck. Laryngeal massage combines circular massage, gentle gliding downward motion, and gentle lateral (side to side) movement of the laryngeal apparatus.<sup>16</sup>

The jaw is a common locus of tension and imbalance during voice production. Gentle circular massage is performed with the fingertips along the jaw line as well as a gentle stretching of the jaw by gliding the palms of the hands from the cheekbones to the chin.

As with any athletic event, when intense vocal activity is engaged in, exercises should begin easily and gently. Yawn sigh,<sup>55</sup> easy lip or tongue trills/raspberry/hum are performed within a limited range a fifth or less; (Figure 1). Loosening of the articulators is found by sighing the repetition of the sound “blah,” emphasizing progressive relaxation of the tongue and jaw.<sup>18</sup> This can be also be performed on easy singing exercises (5-note descending scale or an ascending and descending triad; (Figure 2). Transition into words, phrase, and light conversational voice by using a low impact voice (low effort, breathy, and low volume).<sup>19</sup>

### Part 3—Balance and Endurance

This part of the program focuses on developing balance with voice production. Resonant voice strategies help to facilitate “best” voice.<sup>20</sup> Sustained and gliding hums as well as chanting on combinations of nasal consonants and vowels are performed. Emphasis is placed on cultivating a sensation of vibration in the oral cavity, on the lips, and in the facial region, while eliminating perceived constriction or sense of “work” from the throat region. These productions should be carried out at normal levels of pitch and loudness. Following the production

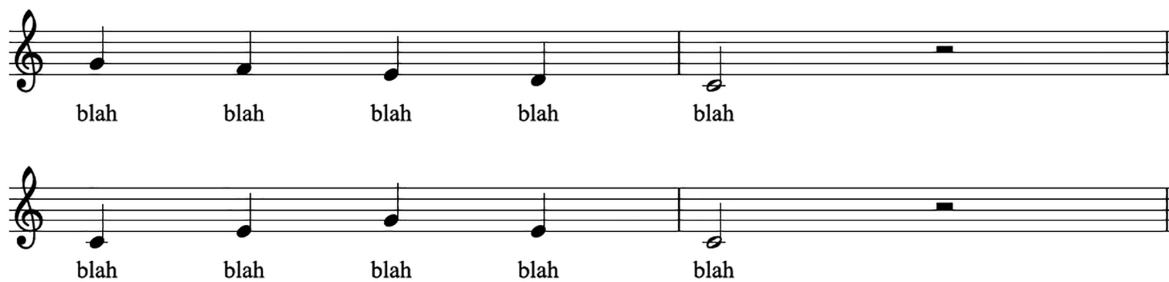


Figure 2. Easy and light singing.



Figure 3. *Messa di voce*.

of single sounds, productions are modified to include carryover to single words, phrases, and eventually short conversations.

If needed, strategies to facilitate loud or projected voice can be introduced and shaped at this point. Emphasis should be on finding an effort threshold, then using the least amount of vocal effort possible to produce the desired louder volume. Attention is paid to the production of a loud voice that is balanced (neither too tight nor too breathy) with relaxed and continuous airflow and easy onset vocal fold closure.

Range extension exercises help to stretch the tissues of the vocal folds which, in turn, aids in “warming up” the voice as well as promoting healing within the mucosal tissues that cover the vocal folds. Semi-occluded vocal tract exercises (sustained pitches and vocal glides)<sup>21</sup> as well as Vocal Function Exercises<sup>22</sup> may be introduced and practiced at this point. Additional tasks might include maintaining a steady flow of exhaled airflow and producing an easy and vibrant voice production while blowing into various diameter straws, performing lip or tongue trills, raspberries, and closed vowels (/u/ and /i/). The entire comfortable range should be used here with emphasis on ease and balance. An exercise called *messa di voce* (meaning “place the voice”) is performed. This exercise helps to improve breath coordination and control and teaches the individual how to coordinate a loud voice by emphasizing ease and relaxation during its

production. This exercise is performed on a single pitch and begins soft, gradually increases loudness, and then returns to a soft volume again and can be performed throughout a comfortable range of pitches (Figure 3).

At this point in the program, it is necessary to carryover the previous strategies into specific singing exercises and individualized performance repertoire. Here, emphasis is placed on maintaining a balanced voice production during whatever task the individual is performing. Some recommended singing exercises to carryover the concepts would include 5-note descending scales, ascending and descending triads, singing vocal glides of a fifth and an octave, melismatic work, etc. If a singer has specific exercises to warm up the voice during singing, these can be shaped with the aforementioned concepts. It is vital for performers and other professional voice users to transfer the concepts and strategies into performance material/presentations.

#### Part 4—Cool-Down

After an intense work out, a period of cooling down the body is paramount. Here, easy vocal sighs, humming, and exercises to relax the articulators are reviewed and performed. All of the exercises mentioned previously in the warm-up part of this program are appropriate in the cool-down. Emphasis is placed on returning to a normal and easy vocal effort after intense loudness levels and extremes of the vocal range.

Like with yoga practice, returning to the breath and performing conscious relaxation strategies is of high importance to developing a well balanced body and centered mind. Progressively slowing the breath, breathing in and out through the nose is performed. Finding a quiet space, getting into a comfortable position, playing soft music, and closing the eyes can help to facilitate relaxation. The practice of vocal yoga ends by mentally scanning the body for tension or tightness and progressively releasing this tension on the exhalation. Guided imagery may be performed to help facilitate relaxation.

Individual sessions of vocal yoga can be as short or as long as is needed. An individual who has more anxiety or tension might do well with a longer centering and warm up. A person who loses focus easily is unlikely to “buy into” the centering strategies and might do better proceeding more rapidly to the active warm up, balance and endurance strategies.

### ONGOING RESEARCH

The group responsible for this article is actively researching the incorporation of yoga principles into voice therapy protocols with application to patients with muscle tension dysphonia or other hyperfunctional voice disorders. Evaluation by our Voice Care Team consists of separate evaluations conducted by an otolaryngologist and speech-language pathologist. Standard voice evaluation procedures include an endoscopic examination of the larynx with laryngostroboscopy, as well as perceptual evaluation (as per the Consensus Auditory-Perceptual Evaluation of Voice; CAPE-V),<sup>23</sup> the Voice Handicap Index (VHI),<sup>24</sup> and Voice Related Quality of Life (VRQOL)<sup>25</sup> scales. All assessments are completed before and after four weeks of vocal yoga. Preliminary data obtained by our group suggests that the sequence of exercises and strategies in the vocal yoga program have been effective in reducing patients’ perceived severity of dysphonia symptoms. Anecdotal reports from patients upon completion of the program suggest an ease of voice production, decreased vocal fatigue, and improved emotional well-being as it relates to their voice.

Emerging work involves the application of vocal yoga to patients presenting with space occupying laryngeal pathologies such as vocal nodules, contact ulcers, vocal

polyps, as well as generalized edema and erythema of the vocal folds. This protocol, combined with other medical and pharmacological treatments, has the potential to improve vocal quality, as well as decrease patient’s perceptions of vocal burden.

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