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Finding a Voice Doctor and Voice Care Team

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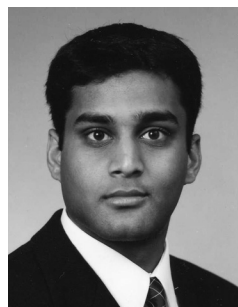
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SINGING TEACHERS ARE NOT ONLY MUSIC EDUCATORS; they are also guardians of their students' voices. An astute teacher does not just help prevent vocal difficulties by providing a student with expert, healthy singing technique; he/she also is often the first person to detect a vocal problem and is usually regarded by the student as the source of all knowledge about anything vocal. This great responsibility carries with it an obligation to know as much as possible about vocal health and care. Since there is still a paucity of expertise, this article is written to provide teachers with guidelines to help them recognize and select voice care professionals with state-of-the-art expertise.

Optimal voice care is delivered by an interdisciplinary team consisting of physicians and nonphysicians. The physician may be an otolaryngologist, a specialist who practices all aspects of ear, nose, and throat medicine, or a laryngologist, an otolaryngologist who specializes in voice disorders. The physician commonly collaborates with other professionals such as speech-language pathologists, singing voice specialists, acting voice specialists, voice scientists, nurses, psychologists, and others who constitute the voice care team. Under the best of circumstances, all of the members of the team have received special training, not just in the general aspects of their disciplines, but also additional training in care of the voice. Although even the best training does not guarantee clinical excellence, it does improve the probability that a practitioner will provide superior, state-of-the-art voice care. This article reviews the typical training and qualifications of the professionals associated most commonly with voice care teams.

What is a voice team?

A voice team is ordinarily under the direction of a physician who is usually an otolaryngologist or laryngologist. In addition to the physician, the team includes the speech-language pathologist; a phoniatriest in countries without speech-language pathologists; a singing voice specialist; an acting voice specialist; a voice scientist; psychological professionals; a nurse and/or a physician's assistant; and consultant physicians in other medical subspecialties. The physician diagnoses and

provides medical treatment for voice disorders. In some cases, the nurse and/or physician's assistant may assist the physician in patient care management. The physician may recommend voice therapy to correct functional, structural, and/or neurologic voice problems. Voice therapy is performed traditionally by the speech-language pathologist, but in some cases, training provided by a singing or acting voice specialist may be employed as well. When known or suspected medical conditions are contributing to an individual's voice disorder, referral to endocrinologists, rheumatologists, pulmonologists, gastroenterologists, general surgeons, psychiatrists, psychologists, neurologists, or other health professionals may be needed. It is helpful for individuals who are seeking voice care to understand the background and role of each member of the voice team.

What is a laryngologist?

The leader of the voice team is ordinarily an otolaryngologist or laryngologist. Otolaryngologists (often called ENTs, or ear, nose, and throat doctors) are physicians and surgeons who specialize in problems of the head and neck, including ears, nose, and throat. Laryngologists are otolaryngologists who specialize in care of disorders of the larynx and voice; in some cases, they also specialize in related problems such as swallowing and airway disorders. To practice laryngology, one must first complete training as an otolaryngologist. After obtaining an undergraduate bachelor's degree and upon graduation from four years of medical school, otolaryngologists then begin one or two years of training in general surgery, and four years of residency in otolaryngology-head and neck surgery. Following successful completion of residency, the physician becomes "board eligible," a classification that indicates that the physician has met the minimum requirements needed to take the national board examinations. In the year following completion of residency, the physician takes the board examination, a national (USA) standardized test that is given in two parts, written and oral. Following successful completion of the board examination and residency, the physician receives certification by the American Board of Otolaryngology. Becoming "board certified" by the American Board of Otolaryngology, or the American Board of Osteopathic Otolaryngology, or the equivalent organizations in other countries, is an important indicator of mastery of basic

knowledge in otolaryngology and is considered a basic, minimum credential.

Most otolaryngologists' clinical practices include many or all components of the specialty, such as otology (the treatment of disorders of the ear), neurotology (the treatment of the neural connections between the ear and brain), laryngology (treatment of voice and airway disorders), head and neck surgery (the treatment of benign and malignant masses in the head and neck), skull base surgery (the treatment of benign and malignant masses at the base of the skull and brain), facial plastic and reconstructive surgery, rhinology (the treatment of nose, sinus, taste, and smell disorders), allergy and immunology, bronchoesophagology (lower airway and swallowing disorders), and pediatric otolaryngology (the treatment of otolaryngologic problems in children). Most otolaryngologists and laryngologists care for patients of all ages, from early childhood through advanced years. Some otolaryngologists subspecialize, caring for disorders in just one or two areas of otolaryngology as described above. This subspecialization can be either a keen interest in a specific area while still providing a broad range of otolaryngology care or a focused practice of only one or two of the subcomponents of otolaryngology. Laryngology is one such subspecialty. Most otolaryngologists who subspecialize in one area complete a one or two year fellowship in that area before beginning the subspecialty practice. The fellowship is additional, focused training in a specific area of subspecialty, and completion of a fellowship usually implies a greater degree of competency and knowledge in that subspecialty than would be expected from a general otolaryngologist. Currently, within the specialty of otolaryngology, there exist recognized fellowships in laryngology, pediatric otolaryngology, facial plastic and reconstructive surgery, otology, neurotology, skull base surgery, head and neck surgery, allergy, and rhinology.

The practice of voice care still is considered to be in its "infancy," having been recognized for only a little more than two decades. At the present time, many physicians specializing in laryngology/voice care did not receive laryngology/voice fellowship training. That is always the case as a new field develops. Modern laryngology and voice care evolved out of an interest in caring for professional voice users, especially singers. The first comprehensive article guiding otolaryngologists on the

care of professional singers was published in 1981.¹ The first major modern American otolaryngology textbook with a chapter on care of the professional voice was published in 1986.² The first comprehensive book on care of the professional voice was published in 1991.³ Thus, most of the senior laryngologists practicing at the turn of the twenty-first century were involved in the evolution of the field before fellowships were developed.

Fellowship training programs in laryngology and voice care started in the 1990s, although a few informal fellowship programs existed in the 1980s and earlier. It is reasonable to expect most voice specialists who finished residency training in the 1990s or later to have completed a fellowship in laryngology. Currently, there are approximately a dozen laryngology fellowship training programs in the United States, and they are highly competitive. Completion of a fellowship is a reasonably good indicator of superior knowledge and clinical training in laryngology. Most laryngology fellowships include training in the diagnosis and the medical and surgical treatment of voice disorders in adults and children, neurotology (neurological problems that affect the voice and larynx), swallowing disorders, airway management, and laryngeal cancer.

Laryngologists provide a wide spectrum of care for both routine and complex problems that affect the voice. Such problems include voice dysfunction associated with something as simple as a common cold (including acute laryngitis), especially when it affects the voice of a professional singer or actor. Laryngologists are responsible for the diagnosis and treatment of structural lesions such as nodules or polyps, prolonged infections of the vocal folds, cancer, traumatic injury from fracture or internal trauma (intubation injuries from anesthesia, vocal fold injuries from previous surgery), neurologic disorders, and other voice problems. The laryngologist is responsible for establishing a medical diagnosis and implementing or coordinating treatment for the patient. Treatment may include prescription of medications, botulinum toxin injections, delicate microsurgery on the vocal folds, or operating through the neck on the laryngeal skeleton. Laryngologists are usually responsible for initiating evaluation by other members of the voice team and for generating referrals to other specialists as needed.

Laryngologists may practice in university medical centers or in private practice. In most cities in the United

States, they are usually affiliated with a voice team, including at least a speech-language pathologist, a singing voice specialist, and sometimes an acting voice specialist, voice scientists, and others. Laryngologists also should have, or have access to, a clinical voice laboratory with equipment to analyze the voice objectively and a stroboscope to visualize the vocal folds in slow motion. They also should be familiar with physicians in other specialties who have an understanding of and interest in arts medicine.⁴ Even for patients with a voice disorder who are not singers and actors, such knowledge and sensitivity are important. Just as nonathletes benefit from the orthopedic expertise of a sports medicine specialist, voice patients receive more expert care from physicians trained to treat singers and actors, the “Olympic” athletes of the voice world.

At present, there is no official additional certification for those who have completed a laryngology fellowship. However, there are organizations (medical societies) with which many of the leading laryngologists are affiliated. Essentially all laryngologists in the United States are fellows of the American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS; website: www.ent-net.org), and laryngologists in other countries are members of their individual nation's analogous organizations.

Additionally, it should be noted that some foreign laryngologists are associate members of the AAO-HNS. A few are also members of the American Laryngological Association (ALA; website: www.alahns.org), the most senior otolaryngology society in the United States, which is limited to 150 active members. The ALA includes members who practice any or all areas of laryngology, and voice care may not be the area of interest for every member. Because a physician must practice laryngology after completion of training for at least seven years before becoming eligible for membership in the ALA, many of the fellowship trained laryngologists, who are arguably some of the most knowledgeable about voice care, are not yet eligible to be members of the ALA. The ALA also accepts associate members from other countries.

Some laryngologists belong to the American Bronchopharyngological Association (ABEA; website: www.abea.net) and/or The Voice Foundation (website: www.voicefoundation.org). The ABEA is an excellent professional organization that accepts many more members than the ALA, and at much less senior career status. Most ALA

members also belong to the ABEA. The Voice Foundation was founded in 1969 and is the oldest organization in the world dedicated to voice education and research. It provides seed grants for research, sponsors an annual symposium on care of the professional voice that started in 1972, and fosters voice education through conferences, educational videotapes, books, and publications such as the *Journal of Voice* and the *Voice Foundation Newsletter*. In recent years, several countries have developed organizations similar to The Voice Foundation, such as the British, Canadian, and Australian Voice Foundations. Laryngologists in these countries are usually members of their national organizations, and many are also members of The Voice Foundation. While membership in these organizations is not a guarantee of excellence in practice, it suggests interest and knowledge in laryngology, particularly voice disorders.

What is a speech-language pathologist?

The speech-language pathologist is a certified, licensed healthcare professional, ordinarily with either a master's or PhD degree. After obtaining an undergraduate bachelor's degree, speech-language pathologists generally complete a one or two year master's degree program, followed by a nine month, supervised clinical fellowship, similar to a medical internship. At the conclusion of the clinical fellowship year, speech-language pathologists in the United States are certified by the American Speech-Language-Hearing Association (ASHA; website: www.asha.org) and use the letters CCC-SLP after their names to indicate that they are certified.

Like otolaryngology, speech-language pathology is a broad field that includes care of patients who have had strokes or other neurologic problems affecting speech and swallowing, have undergone laryngectomy (removal of the larynx), have swallowing disorders, have articulation problems, stutter, have craniofacial disorders, or have other related fluency disorders of speech. Some speech-language pathologists subspecialize in voice, which includes care of voice disorders. Speech pathology is the treatment of disorders of articulation, fluency, and prosody. Voice pathology is the treatment of disorders of voice production that primarily affect the larynx and that are unrelated to speech patterns, *per se*. The speech-language pathologist affiliated with a voice team is usually such a subspecialist, and may call himself/herself a

“voice pathologist” or “voice therapist” rather than a speech-language pathologist, although “voice pathologist” and “voice therapist” are not yet terms recognized officially by the American Speech-Language-Hearing Association. There are relatively few speech-language pathology training programs that provide extensive education in voice, and there are virtually no voice fellowships for speech-language pathologists. Many speech-language pathology training programs do not even require a single course dealing with professional voice disorders. Thus, one can not assume that all speech-language pathologists are trained or comfortable in caring for individuals with voice problems. Most acquire the subspecialty training they need through apprenticeships, extra courses, symposia, or by obtaining PhDs that include voice-related research.

Speech-language pathologists are responsible for voice therapy and rehabilitation of the voice that is analogous to physical therapy. The speech-language pathologist analyzes voice use and teaches proper breath support, relaxation, and voice placement to optimize use of the voice during speaking. A variety of techniques are utilized to accomplish this goal. Speech-language pathologists (SLPs) ordinarily do not work with the singing voice, although they are involved in the treatment of the speaking voices of singers. The care provided by SLPs and singing voice specialists should be complementary. Patients should be cautioned about this, and if they feel that they are not receiving congruent approaches towards voice rehabilitation, they should discuss this with their laryngologist.

Speech-language pathologists may be found in universities, private offices, or free-standing speech and hearing centers. In the United States, most are members of ASHA and its voice related special interest division. Many speech-language pathologists with special interest in voice in the United States and elsewhere are also members of The Voice Foundation. Like otolaryngologists, speech-language pathologists who subspecialize in voice provide more incisive, state-of-the-art treatment for voice disorders than most general speech-language pathologists who care for patients with various problems encompassing their entire scope of practice. Consequently, it is worthwhile for patients with voice disorders to seek a subspecialist to improve the likelihood of a rapid, excellent treatment result. Referrals

to speech-language pathologists specializing in voice are usually obtained through a laryngologist or an otolaryngologist, who evaluates the larynx, provides a medical diagnosis, and coordinates care with the SLP.

What is a phoniatriest?

Phoniatriests do not exist in the United States, but they provide voice care in many countries outside the United States. The phoniatriest is a physician who is in some ways a hybrid of the laryngologist and the speech-language pathologist. Phoniatriests receive medical training in diagnosis and treatment of voice, swallowing, and language disorders, including voice therapy, but they do not perform surgery. In countries with phoniatriests, surgery is performed by otolaryngologists. In many cases, the phoniatriest and otolaryngologist collaborate as a team, just as otolaryngologists and speech-language pathologists do in the United States. A physician who has completed training in phoniatriestry is generally well qualified to diagnose voice disorders and provide non-surgical medical care, as well as voice therapy.

What is a singing voice specialist?

The singing voice specialist is a singing teacher with special training equipping him or her to practice in a medical environment with patients who have sustained vocal injury. Most singing voice specialists have a degree in voice performance or pedagogy, although some have only extensive performing and teaching experience without a formal academic degree. Nearly all have extra training in laryngeal anatomy and physiology of phonation, training in the rehabilitation of injured voices, and other special education. The singing voice specialist must acquire knowledge of anatomy and physiology of the normal and disordered voice, a basic understanding of the principles of laryngology, medications used to treat voice disorders and those that potentially harm the voice, and the principles and practices of speech-language pathology. This information is not part of the traditional training of singing teachers. Moreover, at present, there are no formal training or fellowship programs that assist singing teachers in becoming singing voice specialists. Their training is acquired by apprenticeship and observation. Many take courses in speech-language pathology programs, but usually not as part of a formal degree or certification program, since there is still no certifica-

tion of singing voice specialists.⁵ A few of the best singing voice specialists are also certified, licensed speech-language pathologists. This combination is optimal, provided the speech-language pathologist has sufficient experience and training not only as a performing artist, but also as a teacher of singing. In patients with vocal injuries or problems, the fundamental approach to training the singing voice is different in important ways from that usually used with healthy students in a singing studio. Hence, even an excellent and experienced voice teacher may harm, rather than help, an injured voice, if he or she is not familiar with the special considerations for this population. In addition, a knowledgeable and enlightened singing teacher generally will not feel comfortable working with a singer who has had a vocal injury or surgery.

Virtually all singing voice specialists are affiliated with voice care teams. Most are members of the National Association of Teachers of Singing (NATS) or the equivalent organization in another country and of The Voice Foundation. In many cases, their practices are limited to work with injured voices. They work not only with singers, but also with other patients with voice disorders. As members of a voice treatment team working with nonsingers, they help teach speakers the "athletic" techniques utilized by singers for voice production. Singing is to speaking as running is to walking. When rehabilitating someone who has difficulty walking, if the person can be helped to jog or run, leg strength and endurance improve and walking rehabilitation is expedited. The singing voice specialist helps apply similar principles to voice rehabilitation, in collaboration with the speech-language pathologist and other voice care team members.

What is an acting voice specialist?

Acting voice specialists/trainers are also called voice coaches, drama voice teachers, and voice consultants. Traditionally, these professionals have been associated closely with the theater. Their skills have been utilized as part of a medical voice team only since the mid 1990s.⁶ Consequently, there are few acting voice trainers with medical experience, but their contributions have proved invaluable.

Acting voice trainers use a variety of behavior modification techniques that have been designed to enhance

vocal communication, quality, projection, and endurance in theatrical settings. They train actors to speak or scream through eight shows a week, or perhaps through theatrical runs that may last years, without tiring or causing injury to their voices. They also teach techniques for adding emotional expression to vocal delivery, and they work with body language and posture to optimize vocal delivery and communication of information. They can be a great asset to the voice team in teaching people how to apply the many skills learned through the speech-language pathologist and singing voice specialist to their everyday life. Acting voice trainers are especially valuable for people who speak professionally, such as teachers, lecturers, politicians, clergy, sales personnel, and others concerned with effective vocal delivery and with vocal endurance.

There are no formal programs that prepare voice coaches to work in a medical milieu. Those who do receive training through apprenticeships and collaborations with medical voice care teams, under the direction of a laryngologist. Acting voice trainers interested in working with voice patients are generally members of the Voice and Speech Trainers Association (VASTA) and The Voice Foundation.

What is the role of the voice scientist?

Voice scientists are typically speech-language pathologists or voice specialists with an advanced degree who have a special interest in the science and physiology (body mechanism) of normal and disordered voice production. They measure myriad parameters that reflect lung function, lung capacity, breath support, vocal fold closure patterns, and clarity of the voice. The measurements obtained by the voice scientist help to guide voice therapy and medical decisions, particularly decisions pertaining to the role of surgery, in the treatment of voice difficulties.

What is the role of nurses on the voice team?

Nurses are an indispensable asset in medical offices, and they are important members of the voice team in many centers. Nurses who work closely with a laryngologist generally have vast experience in the diagnosis and treatment of voice disorders. They are wonderful information resources for patients and frequently provide much of the patient education in busy clinical

settings. Such nurses are usually members of the Society of Otolaryngology-Head and Neck Nurses (SOHN). Nurses with advanced knowledge and skills may be certified (by SOHN) and are identified as such by the initials CORLN (certified otorhinolaryngologic nurse) after their names.

Nurse practitioners are advanced practice nurses with master's degrees who are licensed to provide independent care for patients with selected medical problems. They are identified by the initials CRNP, which stands for certified registered nurse practitioner. They work in conjunction with a physician, but they can examine, diagnose, and treat selected problems relatively independently. A few nurse practitioners specialize in otolaryngology and work with voice teams. They ordinarily receive special "on the job" training by the otolaryngologist, and they provide care within their scope of practice. Nurse practitioners can also become members of SOHN, become certified through examination by SOHN, and upon certification will also use the initials CORLN after their names.

What are physician assistants and medical assistants?

Physician assistants, like nurse practitioners discussed above, function in association with a physician. Physician assistants graduate from a four year training program that teaches them various aspects of medical diagnosis and physical examination. They use the initials PAC (certified physician assistant) after their names. Physician assistants practice in conjunction with physicians, but can perform examinations and treat patients independently. They are licensed in many states to write prescriptions. Some physician assistants specialize in otolaryngology and even a smaller number subspecialize in laryngology, which requires extensive training and experience in voice care. In collaboration with a laryngologist and voice teams, they are qualified to evaluate and treat patients with voice disorders.

Physician assistants are distinctly different from medical assistants, who have less training and are qualified to assist in medical care and patient education, but cannot diagnose or treat patients independently. Medical assistants generally are trained to perform tasks such as phlebotomy (drawing blood) and obtaining electrocardiograms. In a laryngology office, a good medical assis-

tant can be trained to perform many other tasks, such as taking histories, assisting with stroboscoped laryngoscopy, assisting during the performance of surgical procedures in the office, participating in research, and other similar duties.

What medical consultants are associated with the voice team?

Otolaryngologists often refer voice patients for consultation with other medical professionals. Specialists that are consulted commonly include neurologists, pulmonologists, gastroenterologists, psychologists, psychiatrists, and general surgeons. However, physicians in virtually any medical specialty may be called upon to care for voice patients.

Traditional and nontraditional ancillary medical personnel also may be involved in voice care, including nutritionists, physical therapists, chiropractors, osteopathic physicians specializing in manipulation, acupuncturists, and others. Within virtually all these fields, a select number of professionals have an interest in and an understanding of arts medicine, including care of the professional voice. Just as caring for voice professionals, especially singers and actors, involves special considerations and challenges for the otolaryngologist, caring for hand problems in a pianist or ankle problems in dancers also poses challenges for the orthopedic surgeon. Orthopedic surgeons, neurologists, pulmonologists, and others who are accustomed to working with performing artists (dancers, instrumentalists, etc.) are most likely to have the insight, sensitivities, skills, and state-of-the-art information needed to provide optimal care to voice professionals. Many such physicians tend to be associated with arts medicine centers or are performers themselves. There is no certification board, national or international organization that helps to identify such physicians, although some are members of the Performing Arts Medicine Association (PAMA). In most fields, there are no formal arts medicine training programs or associations. Physicians acquire such training through their own interests and initiative and through apprenticeship or observation with colleagues. If there is no arts medicine center in the area in which an individual is seeking care, arts medicine physicians are identified best by word of mouth or through arts medicine related

websites. Referrals can be obtained through the local laryngologist or voice specialist or by consulting with prominent performing arts teachers in the community. For example, the leading private, university, and conservatory violin and piano teachers often know who the best hand specialists are, wind instrument teachers know whom to see for neurologic and pulmonary problems that affect musicians, and dance teachers know the best foot and ankle physicians.

When should I seek out a laryngologist instead of a general otolaryngologist?

Most otolaryngologists possess basic familiarity with common voice disorders that affect most people in the population, such as laryngitis during an upper respiratory tract infection (the common “cold”). However, management of even simple problems such as laryngitis is different in professional voice users. People with special voice needs may be served best by consulting a laryngologist with a special interest or concentration in voice disorders even for common problems. Laryngologists also are helpful in more complex problems that may be difficult for general otolaryngologists to diagnose or treat since they do not see unusual voice disorders on a daily basis, and also may not have essential diagnostic equipment such as a stroboscope. If a patient has seen an otolaryngologist a few times for voice problems and is not getting better, obtaining an opinion from a physician subspecializing in laryngology may be most helpful, especially if the cause of the voice problem has not been identified with certainty. Consultation with a laryngologist also should be considered when surgery is recommended, particularly surgery for benign problems such as nodules, cysts, and polyps. The technology and standard of care for voice microsurgery has changed dramatically over the last ten years. Laryngologists should be familiar with state-of-the-art treatment in voice care; but it is impossible for general otolaryngologists to be up to date in every aspect of ear, nose, and throat care.

Are there any “red flags” that should make me get a second opinion immediately?

Yes! If a physician recommends immediate “emergency” surgery for benign problems such as nodules, a second

opinion should be obtained. There are very few indications for “emergency” voice surgery.

Most surgical procedures to improve the voice should include voice therapy as part of the treatment regimen. If voice therapy is not recommended both before and after removal of a benign vocal fold mass, a second opinion should be sought, as the lack of such a recommendation implies (in most cases) an insufficient understanding of the treatment of voice disorders.

In addition, if the physician uses the words “vocal fold stripping,” it implies an antiquated surgical technique that is more likely to result in permanent hoarseness than more delicate phonosurgical approaches. If stripping is recommended, a second opinion should be sought from an expert laryngologist.

How do I find an expert laryngologist?

It is not easy to find an expert laryngologist, as the specialty is relatively new and few in the United States have chosen to subspecialize in laryngology and professional voice care. Guidelines are discussed above in the section on laryngologists. Contacting organizations such as The Voice Foundation or the American Laryngological Association is a good start. It also is reasonable to check the literature and the Internet to see who has written articles or books about voice problems like the one for which a patient is seeking care. Because most laryngologists are affiliated with major academic medical centers, those who do not live near such centers may need to travel several hundred miles to find a qualified laryngologist. For most, the level of care given by those who subspecialize in laryngology and professional voice care is well worth the time and cost spent in traveling.

Do I really need to see other (nonphysician) members of the voice team?

Most of the time, the entire voice team plays an integral role in the diagnosis of the voice problem and in the rehabilitation of the voice, and it is important for patients to follow through on all aspects of therapy. The speech-language pathologist is invaluable in diagnosing and correcting errors in voice usage that can cause or aggravate voice dysfunction. In nearly all cases, patients use hyperfunctional voicing in an attempt to compensate for their voice disorders. It is always important to elim-

inate the hyperfunction to unmask the true nature of the voice disorders. Moreover, in many cases, voice therapy alone is enough to cure the problem. For example, more than ninety percent of vocal fold nodules resolve or become asymptomatic through voice therapy, without surgery.

The singing voice specialist not only defines and rectifies similar inefficient muscle use patterns in singers, but also teaches nonsingers some of the athletic exercises and tricks used by singers to improve vocal control, volume, projection, quality, and variability. Even in someone with no skill or interest in singing, these athletic techniques can be applied to the speaking voice quickly and can speed voice therapy.

The acting voice specialist helps integrate optimal techniques into daily use and teaches additional methods for improving vocal expression and the overall impact of personal communication. Learning the techniques used by actors to project a message efficiently allows all voice users to get their points across skillfully, without having to rely on vocal strain.

Is it safe to be seen at a teaching hospital or clinic?

Virtually all of the leading voice specialists and voice care teams are affiliated with medical schools and teaching hospitals. Most laryngologists will examine, treat, and perform surgery on their patients themselves, sometimes with the assistance of residents and/or laryngology fellows. Residents are physicians who have already completed college, four years of medical school, one or two years of general surgery training, and are completing their training in otolaryngology (a four year training period, itself). The residents always are supervised by the otolaryngologist or laryngologist, who is primarily responsible for the care of the patient. The laryngology fellow has completed his/her residency in otolaryngology and is board eligible, and in some cases is board certified. The fellow also works under the supervision of the laryngologist. In some cases, medical students also may be involved in the care of the patients, but they are not responsible for hands-on care as would be the resident or fellow.

The teaching environment encourages the most advanced state-of-the-art care, and most cutting-edge technologies are found in academic medical centers. Although

information usually is kept about treatment outcomes as part of the process of self-critique, through which clinical care is improved, being seen at a teaching hospital does not mean that you are going to be part of an experiment. Any procedures or protocols that are experimental are identified clearly, and patients are always given the option of participating or not participating. Often, these experimental opportunities represent the best, cutting edge therapy for problems that are generally considered untreatable. Such experimental, advanced treatment is usually made available only by physicians who are affiliated with teaching programs, and are always kept confidential.

If I find the best laryngologist and the best voice team, am I guaranteed a good result?

No. Even if everything is done perfectly, sometimes outcomes are disappointing. In most cases, bad outcomes such as permanent hoarseness from scarring after vocal fold surgery are due to healing problems that are neither the fault of the physician nor of the voice team nor of the patient. As an analogy, if a surgeon makes a similar appendectomy incision on one-hundred consecutive patients, a few of them may develop a large, ugly (hypertrophic) scar, even though the incision was made and sutured perfectly each time. There are uncertainties involved with the human body, and even the best care in the world does not guarantee a perfect outcome. However, it does decrease the chance of a bad outcome. Optimal results require the best efforts of every member of the voice care team, including the patient, who is the most important member of the team. Compliance with voice therapy, medical therapy, antireflux measures, good technical voice use, and voice rest, when prescribed, are essential to “stack the odds” in favor of an optimal result.

Conclusion

Voice care has evolved into a sophisticated, well organized medical science. Patients with voice disorders are served best by a comprehensive voice team that coordinates the skills of professionals trained in various disciplines. It is important for health care professionals to assemble interdisciplinary teams and to affiliate with arts medicine specialists and other disciplines to provide comprehensive care for voice patients. It is also im-

portant for singing teachers and their students to be educated about the kind of health care that is now available for voice disorders and how to evaluate and select health care providers.

NOTES

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6. S. L. Freed, B. N. Raphael, and R. T. Sataloff, “The Role of the Acting Voice Trainer in Medical Care of Professional Voice Users,” in Sataloff, *Professional Voice*, 2nd ed., 765–774.

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