

FROM THE DIRECTOR'S DESK

I hope everyone has let their voices resonate into the new Millennium and is yearning for this Voice Talk.

This issue will be a larger volume than usual and has information on the voice that I hope you may use in your practice, studio or workshops.

Some of the contents of this Voice Talk were compiled during the outstanding 4th International Care of the Professional and Occupational Voice Symposium held in Banff in May, 1999. The conference was a great success, and the Canadian Voice Care Foundation (CVCF) would like to thank the faculty of the event, who not only volunteered their time, but paid their own travel expenses. Without them, the conference would not have been possible. And of course, the conference would not have been a success without the generosity of Celine Dion, whose support of the CVCF is much appreciated and admired.

As you know, it requires a great deal of effort to put on such a first rate international conference. I therefore took a professional development sabbatical from the end of June until January during which time I also recovered my energy and enthusiasm for our work in voice care.

I feel so strongly about the importance of vocal communication in today's technological world, that I am eager to continue my work with the foundation. I am calling upon all of you to help with the work of the CVCF. Send us some articles we can publish, or give us feedback on the articles we may submit in Voice Talk. Only through a collective effort can we achieve our goals of further working upon the understanding and development towards healthy vocal function.

I wish to thank all of you who attended the 4th International Care of the Professional and Occupational Voice Symposium and thank you for the letters of

appreciation. What a wonderful conference. Following are quotes from some who attended the symposium.

"...This was my third Canadian Voice Care Conference and I couldn't be more thrilled! I was so moved to have been able to participate and soon realized that I was not alone in my high opinion of the event. So many doctors, speech-language pathologists, teachers, singers and actors that I was privileged to talk to commented to me on the outstanding organization of the event, the exceptional quality of the internationally known presenters, and especially on the very open and communicative atmosphere throughout the symposium..." University of Guelph

"...It is wonderful that the Canadian Voice Care Foundation can put on such a high quality and educationally important program. The ability to interact with voice scientists, physicians, speech language pathologists, teachers of singing and acting coaches, along with singers and actors is wonderful. The addition of other occupations which are getting involved in voice care such as psychologists, osteopaths, and massage therapists was instructive and allowed for great diversity..." University of Utah

"...The voice is necessarily interdisciplinary, and colloquia involving both science and pedagogy are a

(Continued on Page 7)

INSIDE...

From the Director's Desk 1	Calendar of Events 8
The Whisper and the Whistle 2	Psychiatric Disorders 9
Vitamin Side Effects 6	Vocal Definitions 11

The Whisper and the Whistle: The Role in Vocal Trauma

Abstract

Following vocal injury, care must be taken by the professional vocalist to avoid further injury and to allow for healing. The role of the whisper, whistle and throat clearing following voice trauma is poorly understood. In an effort to define the physiologic mechanisms of whispering, whistling and throat clearing at the laryngeal level and to estimate their role following vocal injury, 15 normal subjects with no history of laryngeal pathology were examined via direct flexible laryngoscopy while performing these tasks. In the majority of subjects, these tasks did not provide protection from possible further vocal insult, and may even result in progression of injury. Some subjects had incomplete vocal fold adduction, suggesting atraumatic sound production.

Vocal trauma occurs in the professional singer secondary to many factors, including excessive rehearsing, poor technique, and vocal abuse in daily speaking activities. Once such an insult occurs, as part of the treatment, care must be taken to allow the vocal instrument to rest and to avoid further trauma, but this is frequently difficult because of performance and rehearsal scheduling. Two commonly used methods perceived by some singers to protect the vocal organ are whisper for speech and whistle for score study. However, vocal instructors and health care professionals have felt that these are of no benefit and may even increase vocal injury. Furthermore, the symptoms of laryngeal irritation following laryngeal injury can result in a desire for frequent throat clearing, causing even more trauma. Despite descriptions in the literature for the mechanism of the whistle and whisper, conflicting reports exist.¹⁻⁴ In an effort to define the physiologic mechanism of whispering, whistling and throat clearing at the laryngeal level and to estimate their role in vocal trauma, this study was undertaken.

Materials and Methods

Fifteen healthy adult volunteers with no known history of vocal pathology or laryngeal surgery were the basis for this study. Seven were males and eight were females, and

ages ranged from 23 to 38 years of age. A Machid® ENT4L 4 mm nasopharyngolaryngoscope with a Karl Storz® 481 -C miniature light source was placed through the nose into the oropharynx under local anesthesia with 4% Lidocaine® with 0.25% Neo-Synephrine. Adequate visualization of the larynx was achieved. Subjects were instructed to phonate in normal speech, clear the throat, swallow, whisper, and whistle both a single note and a multi-note tune. Independent observation was performed by two of the authors; an additional observation was obtained by a third investigator if the initial two observations were not in agreement. Some subjects were photographed with Pentax® MF SLR 35 mm camera to document the findings.

Two commonly used methods perceived by some singers to protect the vocal organ are whisper for speech and whistle for score study.

Results

All subjects were able to whisper and clear their throats with the flexible laryngoscope in place, although one could not whistle under these circumstances.

Throat Clearing

All subjects had sharp adduction of the true vocal folds when clearing the throat, with closure also occurring while swallowing, although less intensely so. Complete visualization of the larynx could not be seen during swallowing due to the obstruction of view resulting from the inferior and posterior position of the epiglottis obtained during swallowing.

Discussion

Following vocal injury the professional vocalist often cannot rest the voice until complete resolution of the injury because of the demands of rehearsal and performance scheduling and the prominent social roles they frequently assume. In an effort to maintain their activities, alternative methods of sound

Whisper

Nine of the subjects were noted to have closure of the membranous true fold (anterior two thirds) when whispering with varying degrees of mild laxity rather than the more taut apposition while speaking. The arytenoids were parted so that the glottis assumed an inverted "Y", position (Fig. 1). Two subjects had closure of the anterior one-third to one-half of the vocal folds with abduction posterior to this point in a more elongated inverted "Y" configuration (Fig. 2). Two subjects adducted slightly but without there ever being complete apposition of the vocal folds or arytenoids and, therefore, remaining in a slightly open position (Fig. 3). One subject whispered by use of the false vocal folds in a manner similar to dysphonia plicae ventricularis (Fig. 4). The true vocal folds could not be visualized beneath the false vocal folds. The final subject had an inverted "Y" position with partial use of adducted false vocal cords.

Whistle

During production of a single whistled note, eight subjects had complete adduction of both entire true vocal folds (Fig. 5). Six had no closure on onset, while the note was sustained, the vocal folds of all subjects assumed an abduct position (Fig. 3).

Seven subjects had complete adduction of the vocal folds during production of multiple notes in a tune with varying degrees of mild abduction between the onset of each individual note. Four larynxes remained in a slightly parted position without closure at any time (Fig. 3). One was noted to have closure of the arytenoids only on onset of each note with bowing of the anterior two-thirds of the vocal folds (Fig. 6) followed by minimal abduction of the arytenoids between notes. One subject had significant adduction of the false vocal folds with adduction of the true vocal fold occurring at the same time but persisting for a short period of time after abduction of the false vocal folds (Fig. 4). This was the same subject who had utilization of the false vocal folds during whispering.

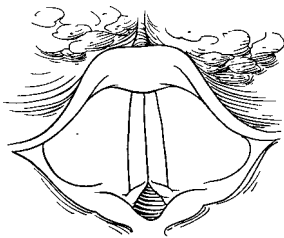


Figure 1
Inverted "Y" position

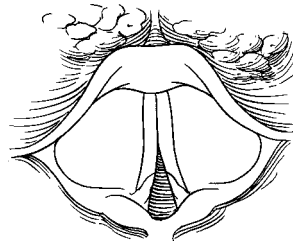


Figure 2
Elongated inverted "Y" position

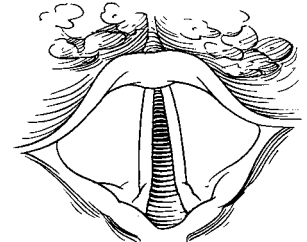


Figure 3
*Partial abduction
(incomplete adduction)*

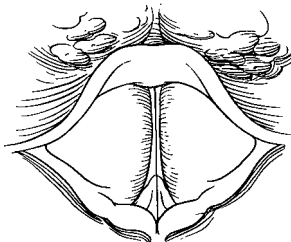


Figure 4
False vocal fold adduction

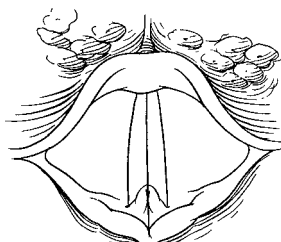


Figure 5
True vocal fold adduction

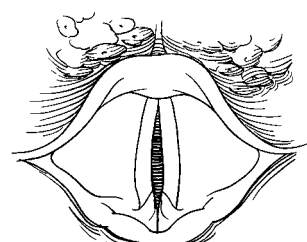


Figure 6
*Arytenoid adduction
with anterior bowing*

production are often used until the voice recovers. In order for these methods to be effective, it is necessary for them to allow for gradual improvements without risking continued or worsening insult to the vocal organ.

Despite the relative frequency with which people use the

whisper, some controversy exists as to the exact mechanism of production and the anatomic configuration that the larynx assumes during whispering. Most authors have described an inverted "Y" position of the true vocal folds with anterior two-thirds closure and posterior one-third abduction in

the area of the arytenoids (Fig. 1).¹⁻³ Furthermore, although the anterior two-thirds of the vocal folds are parallel, they are either not firmly approximated or a relatively narrow opening exists.³ Other configurations have been described, including closure at the level of the arytenoids and bowing without closure of the anterior two-thirds during quiet whisper in some subjects, with abduction and an inverted "Y" pattern in others.⁴ During forced whisper either incomplete medial compression along the length of the vocal folds or the inverted "Y" position is described.⁴

In the present study three-fifths of the subjects assume the more classic inverted "Y" position, two having a shorter inverted "Y" configuration with approximation of the anterior one-half rather than two-thirds of the vocal folds, and one with a combination of the inverted "Y" with partial use of the adducted false vocal folds. In total, four-fifths of the subjects in this study whispered using a type of inverted "Y" configuration. The membranous position of the vocal folds were parallel and intermittently opposed but with less intensity than during speech, consistent with the aforementioned reports.^{2,3}

Contrary to the positions suggested above,¹⁻⁴ two of our subjects had incomplete adduction during whispering, with the two sides never approximating each other and always with a moderate glottic chink. The final subject utilized his false vocal folds in a fashion seen in dysphonia plicae ventricularis.

Despite multiple descriptions of the whisper in the literature, little is known about the effect of whistling at the level of the glottis. Also there may be a difference in some people between single-note whistling and whistling multiple notes in a tune. Six of our subjects maintained an abducted position with whistling of a single note; only four of 14 had abduction with multiple notes. Seven (50%) subjects showed complete closure and three others had at least partial closure. What is the role of these two actions as well as that of forced clearing of the throat in the recovery after vocal trauma? A high percentage of laryngeal injuries in the professional vocalist occur at the level of the leading mucosal edge of the vocal folds. Mechanical, environmental, or chemical irritation can result in alterations of mucosa with subsequent inflammation and Reinke's space edema with resultant symptoms and change in the character and quality of the voice. Further injury would be expected to occur if any form of trauma would

Despite multiple descriptions of the whisper in the literature, little is known about the effect of whistling at the level of the glottis.

continue. Mechanical trauma would likely occur in this aggravated state with any excessive contact between the membranous true vocal folds, the vocal processes, or bodies of the arytenoids.

From this study it can be seen that contact does occur between the vocal folds with both whistling or whispering. The approximation that occurred during whistling was similar to speech in the previously injured larynx. Caution should be used, therefore, while whistling as it would be used while speaking. There does not appear to be a protective effect from whistling in the majority of people. In the minority of people (four of 14 in this study) in whom abduction is maintained, it would seem that mucosal injury would not be further propagated and whistling may be an alternative to quiet singing for score study.

There does not appear to be a protective effect from whistling in the majority of people.

Throat clearing clearly results in sharp apposition of the entire vocal folds. Mechanical injury would be expected to continue if throat clearing was frequently utilized. A much less vigorous adduction occurs with swallowing and therefore would likely be of no additional harm and should be substituted for throat clearing.

Whispering, on the other hand, does not result in as forceful apposition of the vocal folds that occurs with normal speaking. It is possible, therefore, that less mucosal injury would occur. Hufnagle and Hufnagle found a significant preference for vocal quality following a week of quiet whispering in 10 dysphonic patients,⁵ but no controls were used to compare the rapidity of improvement. Presman and Keleman found the vocal folds to assume a position only a little more approximated than for quiet respiration during quiet whispering.⁶ These findings would suggest that quiet whispering may actually be protective for the traumatized larynx. It is difficult, however, to determine whether quiet whispering plays a major role in daily communication.

Sound production during louder whispering seems to be the result of the turbulence of rapid air flow, unlike the regular

pulsations of air flow which occur in the voicing of sounds.³ A frictional sound is produced as outgoing air passes through the glottis, particularly through the posterior glottic chink.² It has also been suggested that vocal fold vibration typically does not occur while whispering, but glottal resistance that occurs in phonated speech is preserved during the whisper, at least for stop consonants.⁷ If resistance is at times similar to voiced speech and if sound production during whispering is the result of turbulence and friction, it is possible that injury might occur without significant mechanical trauma from sharp vocal fold approximation. It is also difficult to assess whether whispering results in a difference in intrinsic laryngeal muscular activity, which may also play a negative role in recovery from vocal injury. Brodnitz suggested that whispering produces excessive strain or hyperfunctioning of the laryngeal mechanism.⁸ As with whistling, some subjects appeared to have minimal adduction during whispering which would be expected to decrease the risk of trauma if frictional sound production does not play an important role with vocal folds in an abducted position.

It would seem that in the majority of subjects there is a suggestion of a harmful effect to the vocal mechanism in the previously traumatized larynx while whispering or whistling. In addition, clearing of the throat with sharp glottal apposition should be avoided. The role of quiet whispering and the decreased friction necessary for sound production is not likely to be harmful, given the previous reports.^{5,6} As flexible direct laryngoscopy plays a greater role in the evaluation of the professional singer or speaker, an assessment may be made as to which individual is likely not to have a harmful effect from whispering or whistling. Until these assessments are

routinely achieved, the whisper and the whistle should be avoided following injury to the vocal organ.

Conclusion

Evaluations by direct flexible laryngoscopy of normals reveal variable degrees of vocal fold adduction while whispering, whistling, and voice clearing in the majority of subjects. Possible vocal injury may occur by these actions in the previously traumatized larynx and thus should be avoided. An occasional person might be protected and direct examination would be necessary for this determination.

References

1. Zemlin WR: *Speech and Hearing Science: Anatomy and Physiology*. Englewood, N.J., Prentice-Hall Inc., 1968.
2. Boone DR: *The Voice and Voice Therapy*, 2nd ed. Englewood, N.J., Prentice-Hall Inc., 1973.
3. Minifie FD, Hixon TJ, Williams F (eds): *Normal Aspects of Speech, Hearing and Language*. Englewood, N.J., Prentice-Hall Inc., 1973.
4. Monoson PZ, Zemlia WR: Quantitative study of whisper. *Folia Phoniatr* 36:53-65, 1984.
5. Hufnagle J, Hufnagle K: Is quiet whisper harmful to the vocal mechanism? A research note. *Percept Mot Skills* 57:735-737, 1983.
6. Presman JJ, Kelemen C: Physiology of the larynx. *Physiol Rev* 35:506-554, 1955.
7. Weismet O, Lengstreth D: Segmental gestures at the laryngeal level in whispered speech: evidence from an aerodynamic study. *J Speech Hear Res* 23:383-392, 1980.
8. Brodnitz, F: Vocal rehabilitation in benign lesions of the vocal cords. *J Speech Hear Disord* 23:112-117, 1958.

Reprinted From MEDICAL PROBLEMS OF PERFORMING ARTISTS

Published by HAN LEY & BELFUS, INC., Philadelphia, PA © 1988

Michael S. Benninger, M.D., Eileen M. Finnegan, MA., CC/SP, Dennis H. Kraus, M.D., Bruce M. Sterman, M.D., Richard Miller, Mark A. Carwell, M.D., and Howard L. Levine, M.D.

With the exception of Professor Richard Miller, all of the authors are from the Department of Otolaryngology and Communicative Disorders, The Cleveland Clinic Foundation, Cleveland, Ohio. Richard Miller is a professor at Oberlin College, The Conservatory of Music, Oberlin, Ohio.

Reprints requests to: Howard L. Levine, M.D., Department of Otolaryngology and Communicative Disorders, The Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195-5034.

Address correspondence to: Michael S. Benninger, M.D., Department of Otolaryngology-Head and Neck Surgery, Henry Ford Hospital, 2799 West Grand Blvd., Detroit, MI 48202.

Some Side Effects to Vitamins and Herbs

As Compiled by Jason B. Surow, MD. Northern Jersey Ear Nose and Throat Assoc.

44 Goodwin Avenue, Midland Park, NJ 07432

Immune Dysregulation Concern

- Echinacea - "may overstimulate immune system and lead to immune suppression" "Increases tumor necrosis factor" "Don't use in HIV" "Don't use for more than two weeks in a row"
- Certain herbs should not be used in autoimmune problems like MS, arthritis, and others

Problems With Production of Products

- L-Tryptophan - 1989 contamination led to several hundred cases of eosinophilia - myalgia syndrome, and at least one death.
- Anticholinergic poisoning from herbal tea - yerba de mate (Paraguay tea) contaminated by belladonna alkaloids from weeds overgrowing in the field

Uterine Stimulants

- yarrow
- licorice root
- yam
- dong quai
- lady's mantle
- and many others
- myrrh
- chamomile

Anticoagulation Concerns

- Dong Quai - "contains coumarin"
- Willow Bark - "contains salicylates"
- Primrose - "contains salicylates"
- Cowslip - "contains salicylates"
- Jack-in-the-pulpit - "contains salicylates"
- Red root - "causes clotting disorders"
- Garlic - "in high doses worsens anticoag"
- Vitamin E "in high doses thins blood"

Diuretic Concerns

- Elder - "strong diuretic"
- Dandelion
- Feverfew
- Nettles

Vitamin Toxicity

- Vitamin C - flatulence, bloating, diarrhea, cramps
- Vitamin E - "thins blood" "reduces effectiveness of thyroid replacement" "avoid high doses with HBP, CHF, insulin requiring Diabetes, heart problems"

Toxic Effects

- Chapparal - was banned in the US due to potential of liver damage. Recently reintroduced.
- Pokeweed - can cause respiratory paralysis and convulsions
- Coltsfoot - may cause cancer
- Rue - may make skin susceptible to cancer

Other Cautions

- Don't use with fever - astragalus (hung qi), goldenseal, others
- Chewing leaves of feverfew is a folk remedy but can cause mouth sores
- Lobelia has "nicotine-like" effects and >50 gm can suppress breathing, depress blood pressure and can even lead to coma
- Ginseng lowers blood sugar so shouldn't be used if hypoglycemic
- Nutmeg is toxic in high doses
- Sage has chemical (thujone) that can trigger seizures in epileptics
- Melatonin - don't use if have severe allergy, immune disorder or cancer
- Peppermint relaxes smooth muscle and can promote reflux

Hormonal Effects Concerns

- Dong Quai - "increases effects of ovarian and testicular hormones. Used to Rx hormonal problems"
- Yam - "progesterone like chemicals"
- Licorice root - "has estrogen and progesterone effect. May change pitch of voice"
- Hops - "high proportion of estrogen and can lead to loss of libido in men"
- Primrose - "natural estrogen promoter"
- Melatonin - "major role in production of estrogen & progesterone & possibly other hormones." "acts as contraceptive in high doses"
- Yohimbe - "may increase testosterone. Women shouldn't use"

Photosensitization Concerns

- St. John's Wort
- Celery
- Dong Quai
- Yarrow

Inhalent Allergy Cross-Reactivity

- Yarrow Ragweed
 - Chamomile "long term use can lead to ragweed allergy"
- Yarrow Sunflower
 - Echinacea

Blood Pressure Concerns

- St. John's Wort -Mao inhibitor effect. "-Don't take with amphetamines, amino acids, asthma inhalers, caffeine, decongestants, beer, wine, yogurt, fermented or smoked foods." [avoid amino acid tyramine] Avoid narcotic due to high incidence of high fever with coma.
- Ma Huang (ephedra)- "avoid in MAO use (often used in depression), glaucoma, anxiety, heart problems"
- Goldenseal
- Ginseng
- Licorice root-causes fluid retention

FROM THE DIRECTOR'S DESK

(Continued from Page 1)

necessity. This accounts for the success of the Canadian Voice Care Foundation Symposium. I was able to meet interested participants, to make contacts with colleagues for future projects, and to have an overview of the current state of the science and pedagogy of voice..." University of Ottawa

"...As a young voice professional, I feel strongly that I will look back on this time and realize just how much it changed my life by opening new windows of understanding, by encouraging and challenging my work, and by facilitating connection with significant voice professionals. I feel the conference was a terrific experience and felt privileged to attend..." Michelle Crouch, Alberta

"...I enjoyed the Banff Centre's facilities enormously and felt that the accommodations, food and conference venue were first rate. The setting could hardly have been more spectacular and I am delighted to have been given the chance to experience the Canadian Rockies first hand. This was a great

feat of planning and execution and I congratulate you on your excellent work. In my opinion it was one of the best and most satisfying Symposia I have attended..." Leytonstone, London, U.K.

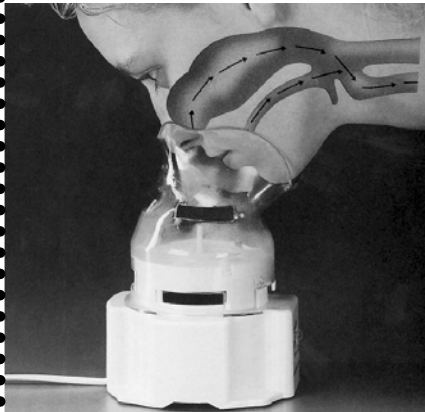
"...The atmosphere was respectful, supportive and conducive to learning so one felt comfortable asking questions and exploring unfamiliar aspects of the vast world of voice... On a personal note, I must express my admiration for your commitment and enthusiasm, which I have found most inspiring. It is your passion for voice that makes this symposium so unique. Thank you again for an incredible opportunity..." Carnegie Mellon, School of Drama, Pittsburgh

"...I have certainly enjoyed my association with the Canadian Voice Care Foundation in the past years – I am especially thankful for the support and referrals received for my voice problem. Really, without that, life would have been quite shattering!..." Saskatchewan

"...all the thoughtfulness and attention to detail you put into this symposium, none of it went unnoticed for me, a psychiatric nurse, it brought deeper understanding of how much our voice reveals our soul to the world..." Montreal

Calendar of Events

STEAM INHALER



This personal steam inhaler is small, light and effective and can be ordered through the Canadian Voice Care Foundation (CVCF) for \$68.00 including taxes and shipping.

Name: _____

Address: _____

City/Province: _____

Postal Code: _____

Tel: _____

Please make your cheques payable to:

Canadian Voice Care Foundation
2828 Toronto Crescent N.W.
Calgary, Alberta T2N 3W2

For more information call
1-888-284-9590

VOICE INTENSIVE

May 14 - June 16, 2000
University of British Columbia
Vancouver, B.C.
Application Deadline

March 3, 2000
phone: 604-822-3093
email voice@interchange.ubc.ca

AUSTRIAN VOICE CARE

AUGUST 5 - 8, 2000

SALZBURG

For Information:
Fax: 011+43-662-874-53730

OREN BROWN VOICE SEMINAR 2000

Healthy Voice Production
Hands on demonstrations by world authorities
ATT: Singers and Teachers

August 4 - 9, 2000

For Brochure: write, phone, fax or e-mail
4015 Old Main Hill
Logan, UT 84322-4015
Ph: 435-797-3015 Fax: 435-797-1862
e-mail: cdewey@hass.usu.edu

XVIIITH PACIFIC VOICE CONFERENCE

November 9-11, 2000

Pan Pacific Hotel
San Francisco, California

Contact: The Pacific Voice
Foundation
Phone: 415-824-7029 or
510-444-7324
Email: conference@pvfs.org
Fax: 510-444-7179

THE VOICE FOUNDATION

**29th Annual Symposium
Care of the Professional Voice**

June 28 - July 2, 2000
Philadelphia
(215)735-7999

NATIONAL ASSOCIATION OF TEACHERS OF SINGING, INC.

46th National Convention

July 1 - 5, 2000
Philadelphia
Phone: (904) 744-9022
Fax: (904) 744-9033
Email: info@nats.org

Psychiatric Disorders and Some of The Associated Causes

Dr. Steven H. Levy, M.D., Bala Cynwyd, P.A.
The Voice Care Foundation, 1721 Pine Street, Philadelphia, PA 19103

TABLE 1
PSYCHIATRIC SYMPTOMS ASSOCIATED WITH PHYSICAL DISORDERS

Anxiety, Panic	<u>Endocrinopathies</u> (Thyroid, parathyroid, Adrenal Corticosteroids, Langhans Cells)	<u>Collagen Vascular Disorders</u> Systemic Lupus Erythematosis Rheumatoid Arthritis Temporal Arteritis Polyarteritis nodosa
	<u>Neurological Disorders</u> Multiple Sclerosis Vertigo Associated with Meniere's Syndrome	
Depression	Endocrinopathies, Collagen Vascular Disorders, Multiple Sclerosis, Brain Tumor, Pancreatic Tumor (Carcinoma)	
Delusions	Endocrinopathies, Systemic Lupus Erythematosis	
Episodic Symptoms	Systemic Lupus Erythematosis, Multiple Sclerosis	

TABLE 2
DRUG-INDUCED PSYCHIATRIC DISORDERS

	<u>Gastrointestinal Agents</u>	<u>Adrenal Corticosteroids</u>
Agitation, Anxiety and Nervousness	Famotidine (Pepcid), Nizatidine (Axid) and Omeprazole (Prilosec)	Dexamethasone (Decadron) Prednisone
Aggression, Hostility and Violence	Omeprazole	
Somnolence	Nizatidine	
Confusion and Delirium	Rantidine (Zantac), Cimetidine (Tagamet)	Prednisone Corticosteroids
Depression	Famotidine, Omeprazole, Ranitidine, Cimetidine	Prednisone Dexamethasone
Hallucinations	Cimetidine, Ranitidine Omeprazole, Lansoprazole (Prevacid)	Corticosteroids
Mania, Hypomania or Euphoria	Cimetidine, Ranitidine	Dexamethasone Prednisone Corticosteroids
Paranoia	Cimetidine	Corticosteroids Prednisone
Behavioural Changes		Prednisone Withdrawal
Sleep Disturbances		Dexamethasone

TABLE 3
DRUG-INDUCED PSYCHIATRIC DISORDERS

<u>Antihistamine/Decongestants</u>		
Agitation, Anxiety, Nervousness	*Pseudoephedrine, Phenylpropanolamine Phenylephrine	Trineline, Entex LA, Loratidine
Delirium and Confusion	Phenylpropanolamine	Loratidine
Depression	Phenylpropanolamine	Loratidine
Hallucinations	Pseudoephedrine, Phenylpropanolamine, Phenylephrine	Trineline, Entex PSE,
Mania, Hypomania, Euphoria	Pseudoephedrine, Phenylpropanolamine, Phenylephrine	Trinelin
Panic Disorders	Phenylephrine	
Paranoia	Pseudoephedrine, Phenylpropanolamine, Phenylephrine	Diphenhydramine
Sleepiness		Trinelin, (Fexofenadine) Allegra
	<u>Pseudoephedrine HCE</u>	<u>Pseudoephedrine Sulfate</u>
	Duratuss (also a mucolytic) Entex (LA, PSE) Sudafed	Claritin (Loratidine) Trinelin (Azatidine)

*specific agents containing Pseudoephedrine

TABLE 4
CONTRA-INDICATED WITH MONOAMINE OXIDASE INHIBITORS (MAOIs)**

<u>Phenylpropanolamine</u>	<u>Pseudoephedrine</u>	<u>Over the Counter Medications</u>
Entex LA	Duratuss Entex PSE Sudafed	Cold and Cough Preparations Nasal Decongestants Hay-fever Medications Sinus Medications
<u>Phenylephrine</u>	Trinalin Claritin-D	
Extendryl Neosynephrine Phenergan VC		

**Specifically Nardil and Parnate
*These are some contra indications. Always consult with your physician and pharmacists prior to treatment.
For more information please see Kaplan And Sadock's Synopsis of Psychiatry, 8th Edition.



Canadian Voice Care Foundation

2828 Toronto Cres. NW
Calgary, AB T2N 3W2
Tel: (403) 284-9590
Fax: (403) 289-4988
Toll Free: 1-888-284-9590

Director: Katherine Ardo
Administrative Assistant: Paula G'froerer
Membership & Subscriptions: \$25/year
Advertising rates: Available upon request

"The CVCF is a national, non-profit organization dedicated to promoting good vocal health in Canada through education and communication between relevant disciplines."

Vocal Definitions

Stroboscopy

A technique that uses interrupted light to simulate slow motion.

Strobvideolaryngoscopy

Evaluation of the vocal folds utilizing simulated slow motion for detailed evaluation of vocal fold motion.

Subglottal Pressure

Air pressure in the airway immediately below the level of the vocal folds. The unit most commonly used is centimetres of water. That distance in centimetres that a given pressure would raise a column of water in a tube.

Plosive

A consonant produced by creating complete blockage of airflow, followed by the buildup of air pressure, which is then suddenly released, producing a consonant sound.

Singing Voice Specialist

A singing teacher with additional training, and specialization in working with injured voices, in conjunction with a medical and vocal team.

THIS WILL BE THE LAST NEWSLETTER SENT TO THOSE WITHOUT A MEMBERSHIP, SO PLEASE RENEW ASAP!

Associate Membership Application Form

Yearly membership in CVCF includes the Voice Talk newsletter, access to program information, the international directory and referrals worldwide, access to an extensive reference library of voice books, video -tapes, audio -tapes and software programs as well as many other benefits.

Please check one: Renewing Member New Member

Name: _____

Address: _____

Postal Code: _____

Telephone: (day) _____ (eve) _____

Fax: _____ e-mail: _____

Individual	\$25.00	
Institution (Hospitals, Universities, etc.)	\$50.00	
Corporate	\$70.00	\$ _____
My tax deductible donation to assist the CVCF		\$ _____
TOTAL ENCLOSED		\$ _____

Please send cheque or money order payable to the Canadian Voice Care Foundation.

**“THE CVCF NEEDS
YOUR SUPPORT
TODAY!”**



“Voice Talk is Sponsored and Printed by Unicom Graphics Limited of Calgary, Alberta.”



2828 Toronto Crescent N.W.
Calgary, AB T2N 3W2
Tel: (403) 284-9590
Fax: (403) 289-4988

