The Source® for Voice Disorders

Adolescent & Adult

Sandra Kasper Schwartz

Content Area: voice
Age Level: adolescent/adult

LinguiSystems, Inc.
3100 4th Avenue
East Moline, IL 61244-9700

800-776-4332

FAX: 800-577-4555
E-mail: service@linguisystems.com
Web: linguisystems.com

Printed in the U.S.A.

ISBN 10: 0-7606-0504-1
ISBN 13: 978-0-7606-0504-2

Case History Form

Patient _____

Parent/Guardian _____

Date of Birth _____ Age _____

Occupation _____

Name/Phone of physician who referred you _____

Please explain the problem for which you are being seen today.

_____

_____

_____

How long have you been experiencing this/these condition(s)? _____

Do you smoke? _____ If *yes*, how much? _____

Do you drink alcohol? _____ If *yes*, how much per week? _____

How much caffeine do you drink per day? _____

How much water do you drink per day? _____

List any medication(s) you are currently taking.

_____

_____

List any major surgeries and the approximate dates.

_____

_____

Have you ever been treated by an ENT (Ear, Nose & Throat) physician in the past? _____

If *yes*, for what condition(s)? _____

Have you ever been treated by a speech-language pathologist? _____

If *yes*, explain. _____

Are you a singer? _____

Have you received formal voice training in the past? _____

continued on next page

Do you currently experience or have history of any of the following? (Please circle any that apply.)

high blood pressure
low blood pressure
heart attack
stroke
shortness of breath
asthma
frequent bronchitis
upper respiratory conditions
(Explain _____)
allergies
heartburn/gastroesophageal reflux
stomach ulcers
hiatal hernia
gastrointestinal conditions
(Explain _____)
cancer
(Explain _____)
TMJ
hearing loss

dry mouth
dry throat
frequent throat clearing
chronic cough
feeling of a "lump" in throat
difficulty swallowing
frequent laryngitis
frequent sore throats
voice change
throat tightness
fatigue after speaking
difficulty getting volume
loss of voice in morning
loss of voice at night

Other medical conditions not listed above

_____

_____

_____

Other changes related to your throat/voice

_____

_____

_____

_____ _____
Signature of Patient/Parent or Guardian Date

Effects of Medication on Voice/Speech

Clinicians within a medical setting should be familiar with the use of a PDR (Physician's Desk Reference) to check for side effects that may affect the voice or cause cough.

Groups of medications that have documented negative effects on voice/speech

- androgens
- anabolic steroids
- central nervous system stimulants
- sedatives
- narcotics
- tricyclic antidepressants
- inhaled steroids
- antihistamines
- (some) cardiovascular medications/ACE inhibitors
- anti-anxiety agents

Groups that may have favorable effects on voice/speech

- hydrating agents
- steroids
- acid inhibitors/Proton Pump Inhibitors (PPI)

Adapted from the National Center for Voice and Speech website on the "200 most frequently prescribed medication in the U.S." (11/99) *http://www.ncvs.org/ncvs/info/vocol/rx.html*

It is important to note medications when performing chart review and/or the intake interview with a patient/caregiver. Keep in mind:

- dosage and duration of use (Is the patient taking the medication as directed?)
- onset of speech/voice/cognitive change relative to start or cessation of medication
- drug interactions
- patient's age
- overall health/co-morbidity of other conditions that may cause or exacerbate symptoms

Speak with the physician regarding a possible change in dose or to different medication if you feel that symptoms might be drug induced. Consider changing the time medication is given to maximize desirable effects, such as reducing tremor (e.g., Sinemet) or reducing anxiety levels (e.g., Ativan) during periods of increased voice use.

Consensus Auditory-Perceptual Evaluation of Voice (CAPE-V)

Name: _____ Date: _____

The following parameters of voice quality will be rated upon completion of the following tasks:

1. Sustained vowels (/a/ and /i/) for 3-5 seconds duration each.
2. Sentence production:
   a. The blue spot is on the key again.
   b. How hard did he hit him?
   c. We were away a year ago.
   d. We eat eggs every Easter.
   e. My mama makes lemon muffins.
   f. Peter will keep at the peak.
3. Spontaneous speech in response to "Tell me about your voice problem." or "Tell me how your voice is functioning."

Legend:	C = Consistent	I = Intermittent
	MI = Mildly Deviant	
	MO = Moderately Deviant	
	SE = Severely Deviant	

SCORE

Overall Severity _____ C I _____/100
MI MO SE

Roughness _____ C I _____/100
MI MO SE

Breathiness _____ C I _____/100
MI MO SE

Strain _____ C I _____/100
MI MO SE

Pitch (Indicate the nature of the abnormality): _____
_____ C I _____/100
MI MO SE

Loudness (Indicate the nature of the abnormality): _____
_____ C I _____/100
MI MO SE

_____ _____ C I _____/100
MI MO SE

_____ _____ C I _____/100
MI MO SE

Comments about resonance: normal other (Provide description):

_____

Additional features (e.g., diplophonia, fry, falsetto, asthenia, aphonia, pitch instability, tremor, wet/gurgly, or other relevant terms):

Clinician: _____

http://www.asha.org/NR/rdonlyres/79EE699E-DAEE-4E2C-A69E-C11BDE6B1D67/0/22560_1.pdf

Voice Handicap Index (VHI)

Instructions: These are statements that many people have used to describe their voices and the effects of their voices on their lives. Circle the response that indicates how frequently you have the same experience.

Never – 0 Almost Never – 1 Sometimes – 2 Almost Always – 3 Always – 4

F1.	My voice makes it difficult for people to hear me.	0	1	2	3	4
P2.	I run out of air when I talk.	0	1	2	3	4
F3.	People have difficulty understanding me in a noisy room.	0	1	2	3	4
P4.	The sound of my voice varies throughout the day.	0	1	2	3	4
F5.	My family has difficulty hearing me when I call them throughout the house.	0	1	2	3	4
F6.	I use the phone less often than I would like.	0	1	2	3	4
E7.	I'm tense when talking with others because of my voice.	0	1	2	3	4
F8.	I tend to avoid groups of people because of my voice.	0	1	2	3	4
E9.	People seem irritated with my voice.	0	1	2	3	4
P10.	People ask, "What's wrong with your voice?"	0	1	2	3	4
F11.	I speak with friends, neighbors, or relatives less often because of my voice.	0	1	2	3	4
F12.	People ask me to repeat myself when speaking face-to-face.	0	1	2	3	4
P13.	My voice sounds creaky and dry.	0	1	2	3	4
P14.	I feel as though I have to strain to produce voice.	0	1	2	3	4
E15.	I feel other people don't understand my voice problem.	0	1	2	3	4
F16.	My voice difficulties restrict my personal and social life.	0	1	2	3	4
P17.	The clarity of my voice is unpredictable.	0	1	2	3	4
P18.	I try to change my voice to sound different.	0	1	2	3	4
F19.	I feel left out of conversations because of my voice.	0	1	2	3	4
P20.	I use a great deal of effort to speak.	0	1	2	3	4
P21.	My voice is worse in the evening.	0	1	2	3	4
F22.	My voice problem causes me to lose income.	0	1	2	3	4
E23.	My voice problem upsets me.	0	1	2	3	4
E24.	I am less outgoing because of my voice problem.	0	1	2	3	4
E25.	My voice makes me feel handicapped.	0	1	2	3	4
P26.	My voice "gives out" on me in the middle of speaking.	0	1	2	3	4
E27.	I feel annoyed when people ask me to repeat.	0	1	2	3	4
E28.	I feel embarrassed when people ask me to repeat.	0	1	2	3	4
E29.	My voice makes me feel incompetent.	0	1	2	3	4
E30.	I'm ashamed of my voice problem.	0	1	2	3	4

Note: The letter preceding each item corresponds to the subscale (E=emotional subscale, F=functional subscale, P=physical subscale)

The Voice Handicap Index (VHI): Development and Validation, Barbara H. Jacobson, Alex Johnson, Cynthia Grywalski, Alice Silbergleit, Gary Jacobson, Michael S. Benninger, *American Journal of Speech-Language Pathology*, Vol 6(3), 66-70, 1997.
Reprinted with permission.

Rainbow Passage

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach, his friends say he is looking for the pot of gold at the end of the rainbow.

LPR/GERD Handout

Laryngopharyngeal Reflux (LPR) occurs when stomach acid redirects into the larynx (voice box) and pharynx (throat). Many patients exhibiting gastric reflux into the larynx may or may not report heartburn or indigestion.

You may experience one or more of the following symptoms associated with LPR/GER:

- cough
- throat-clearing
- feeling of something "caught" in your throat
- hoarseness
- sore throat
- difficulty swallowing
- pain or discomfort when you swallow
- bitter or acidic taste in your mouth

In addition to taking medication, which may be prescribed by your physician, it is important to follow the precautions listed below:

Foods to Avoid

carbonated beverages
caffeine
onions
citrus fruits/juices
alcohol
chocolate
mint/menthol
spicy foods/hot sauce
tomato-based foods (including salsa)

Lifestyle Modifications

- Stop smoking.
- Elevate the head of your bed four to six inches. (Do not just use pillows—elevate your torso, too.)
- Lose any excess weight.
- Avoid tight or restrictive clothing.
- Exercise, but avoid weight lifting.
- Avoid eating one to two hours before bedtime.
- Avoid overeating.
- Decrease stress.

Vocal Hygiene Patient Questionnaire

Name _____ Date _____

Vocal Hygiene

Caffeine intake (glasses/cups per day of coffee, soda, tea, chocolate) _____

Water intake (8-oz. glasses per day) _____

Alcohol intake (drinks per week) _____

Smoking history (packs per day, year quit) _____

Current medications _____

Allergies _____

Occupation _____

Hours per day spent talking _____

Work environment (noise level, exposure to irritants) _____

Vocal Abuse

Do you clear your throat frequently?	Yes	No	Sometimes	Explain. _____
Do you cough?	Yes	No	Sometimes	Is it productive? _____
Do you talk excessively?	Yes	No	Sometimes	Explain. _____
Do you scream/yell?	Yes	No	Sometimes	Explain. _____
Do you imitate noises?	Yes	No	Sometimes	Explain. _____
Do you talk loudly?	Yes	No	Sometimes	Explain. _____
Do you grunt while exercising?	Yes	No	Sometimes	Explain. _____

Vocal Misuse

Do you talk when stressed?	Yes	No	Sometimes	Frequency? _____
Do you talk when tired?	Yes	No	Sometimes	Frequency? _____
Do you use a low/high pitch?	Yes	No	Sometimes	Frequency? _____
Do you use character voices?	Yes	No	Sometimes	Frequency? _____
Do you talk when you have a cold/ upper respiratory infection?	Yes	No	Sometimes	Frequency? _____

Vocal Hygiene Modification List

Many factors impact the health and performance of the voice, but some modifications are relatively easy to incorporate into a daily lifestyle. Below is a list of factors that may impact vocal hygiene and lifestyle modifications for each one.

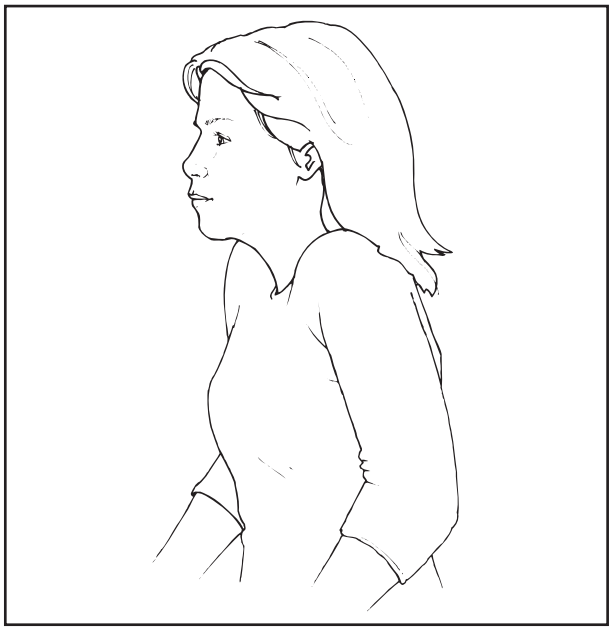
Factors	Modifications
Complaint of dryness/thick secretions	Increase water intake. Use humidification (may be contraindicated for patients with mold allergies). Use throat lozenges (not mint/menthol). Decrease caffeine intake. Decrease the use of antihistamines (if approved by a physician). Breathe through the nose. Check medications for side effects. Possible allergy testing if other allergy symptoms are present (e.g., itchy eyes, post-nasal drip) If severe, use prescription or nonprescription saliva-producing agents (e.g., Mouth-Kote, Salagen).
Excessive screaming or yelling/loud speaking environments	Use nonverbal methods to gain attention (e.g., whistles, hand wave). Relocate/move in order to speak face-to-face with someone. Use amplification. Reduce background noise (e.g., TV, radio, machinery).
Complaint of vocal fatigue	Use vocal warm-ups if performing. Reduce "talk time." Incorporate "voice rest" into daily schedule.
Excessive throat clearing/coughing	GER management (pages 74-76) Engage in a "silent cough." Reduce/eliminate smoking. Check medications for side effects. Assess swallowing/secretion management.

Shoulder Exercises

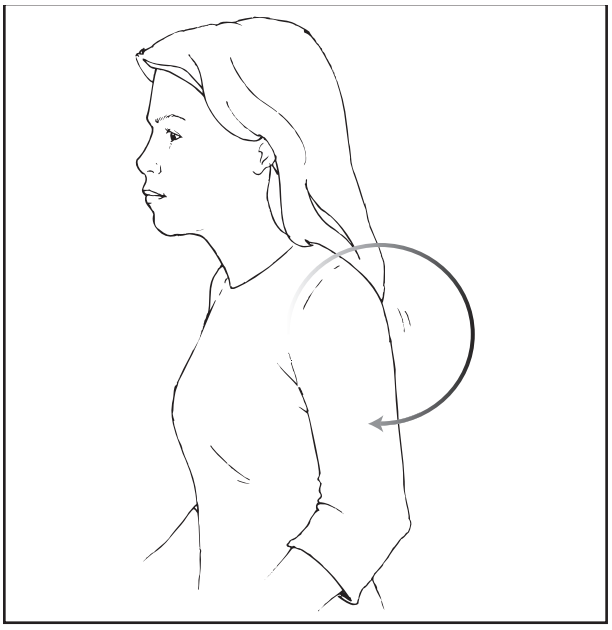
Target: cervical relaxation

Goal: reduction of upper body tension to promote extrinsic laryngeal relaxation

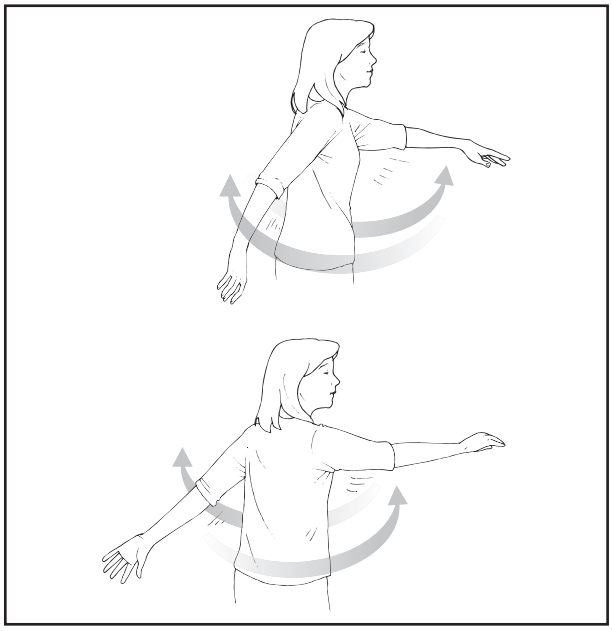
1. Shrug your shoulders, bringing them up toward your ears.



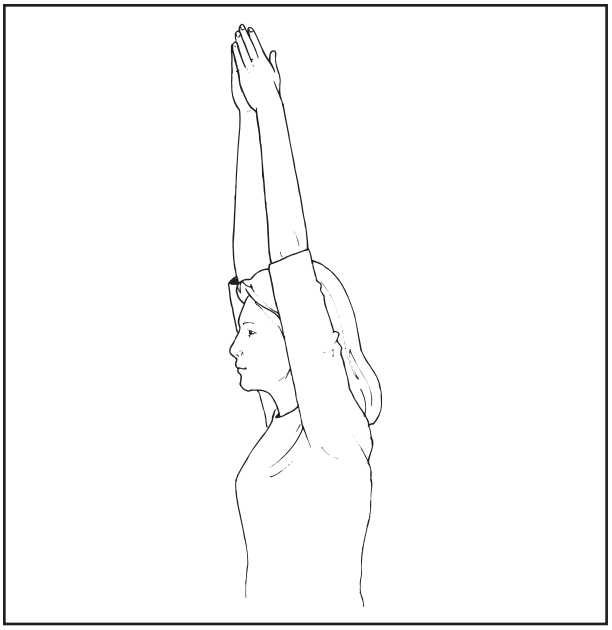
2. Roll your shoulders. Bring both shoulders up toward your ears and then roll your shoulders backward and downward.



3. Keep your shoulders down and relaxed with your arms by your sides, and make exaggerated, slow swinging motions with your arms.



4. With your hands by your sides, bring your arms out straight to the side and up over your head. Touch your palms together.



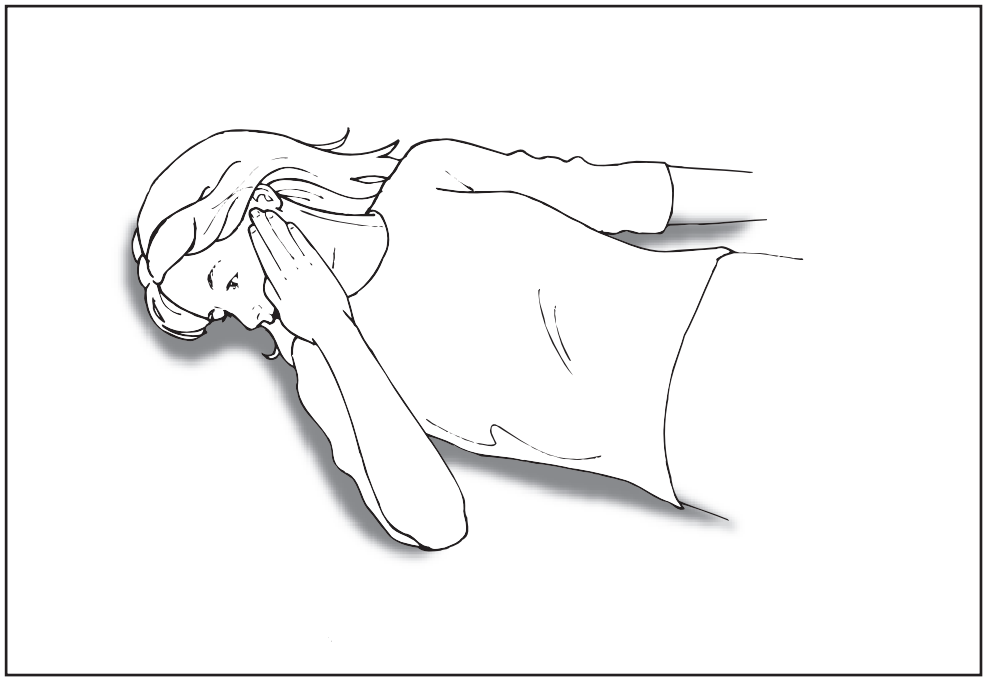
Cervical Exercises

Target: extrinsic laryngeal tension

Goal: to stretch the extrinsic laryngeal muscles and promote relaxed laryngeal movement

Head turn

1. Lie on your back on the floor or a hard surface.
2. Turn your head to the right, placing your right hand on your left cheekbone to add a slight resistance.
3. Stretch to look over your shoulder (do not stretch to the point of pain), keeping your left shoulder on the floor.
4. Repeat on the left, using your left hand against your right cheekbone and keeping your right shoulder on the floor.
5. Perform 10 times on each side.



Cervical Exercises

Target: extrinsic laryngeal tension

Goal: to stretch the extrinsic laryngeal muscles and promote relaxed laryngeal movement

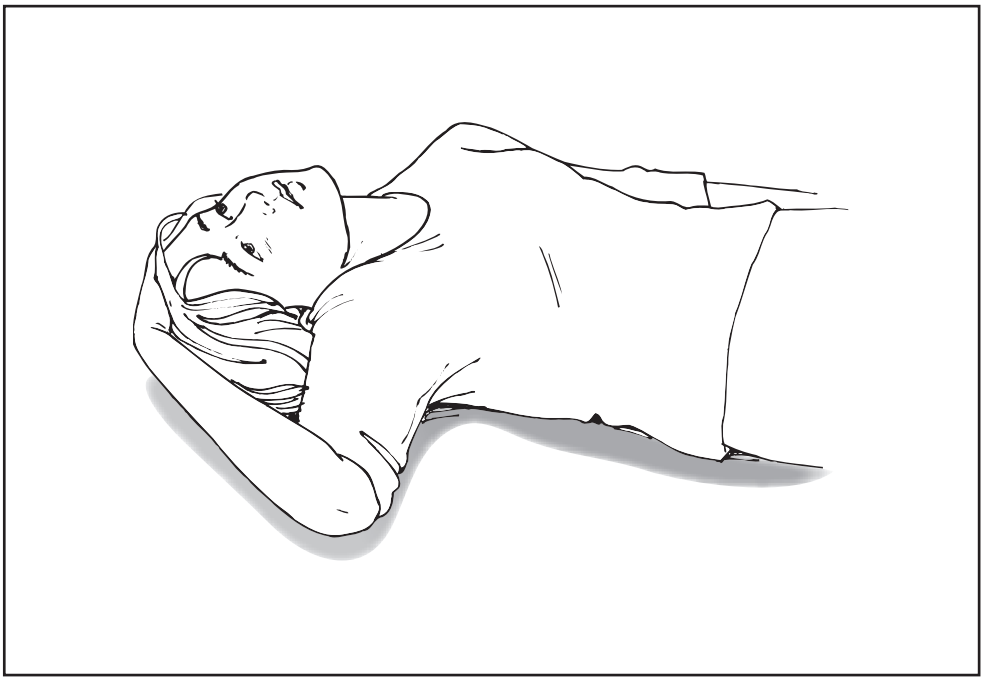
Head tilt

1. Lie on your back on the floor or a hard surface. Keep your shoulders on the floor.

2. Place your right hand over top of your head and slightly pull your head to touch your right ear to your right shoulder (tilting, not turning, your head). Bring your ear as close as you can to your shoulder without stretching to the point of pain. Tilt your neck, not your torso.

3. Repeat on the left side. Bring your left ear to your left shoulder, using your left hand over top of your head.

4. Perform 10 times on each side.



Target: extrinsic laryngeal tension

Goal: to stretch the extrinsic laryngeal muscles and promote relaxed laryngeal movement

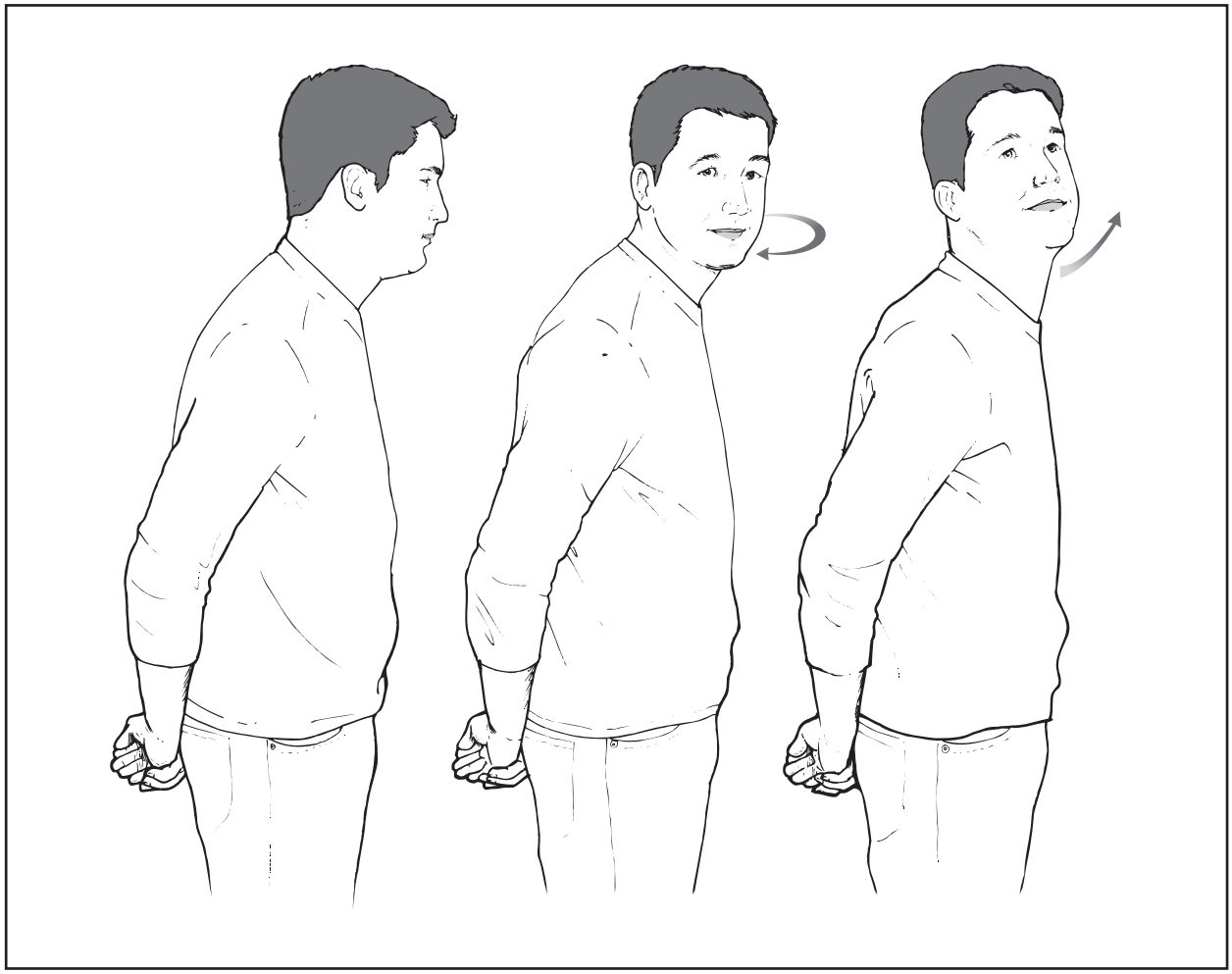
Lateral neck stretch

1. Stand upright and clasp your hands down low behind your back.

2. Turn your head to the right as far as you can and then slowly bring your chin up to look at the ceiling. Hold for a count of 3.

3. Bring your head to midline and repeat on the left. Turn your head to the left as far as you can and then slowly bring your chin up to look at the ceiling.

4. Repeat 10 times on each side.



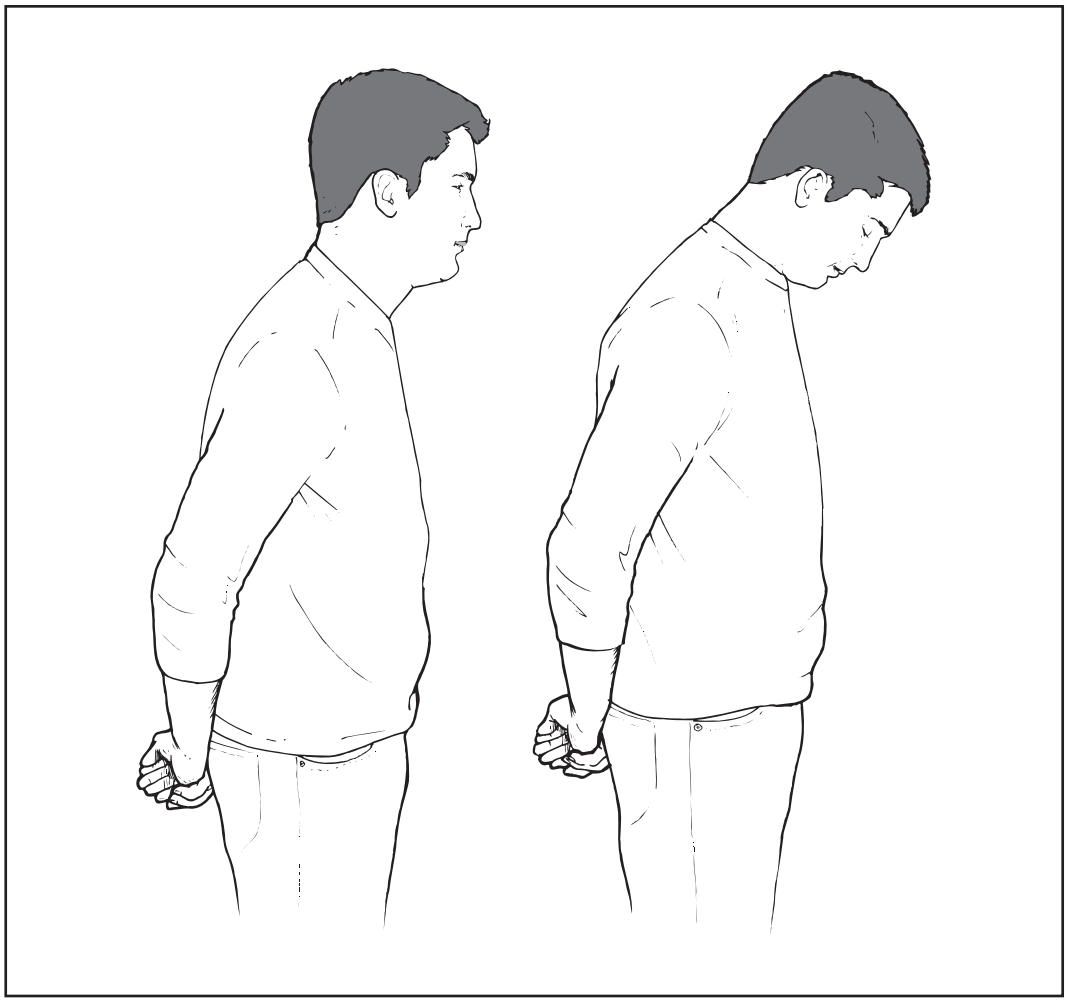
Cervical Exercises

Target: extrinsic laryngeal tension

Goal: to stretch the extrinsic laryngeal muscles and promote relaxed laryngeal movement

Chin to Chest

1. Stand upright and clasp your hands down low behind your back.
2. Keep your shoulders low and back and bring your chin to your chest.
3. Hold for a count of 5.
4. Repeat 10 times.



Adduction Exercises

Target: vocal fold (VF) adduction

Goal: to improve medial glottal closure through the use of tension

Background: Adduction exercises are most often used in hypofunctional voice disorders (e.g., presbylarynx) and neurologic vocal conditions (e.g., vocal fold paralysis) that result in reduced vocal fold adduction and/or reduced volume.

These exercises use pushing and/or pulling during phonation, resulting in increased vocal fold closure and increased subglottic air pressure. Use this increased pressure to produce a louder vocal tone.

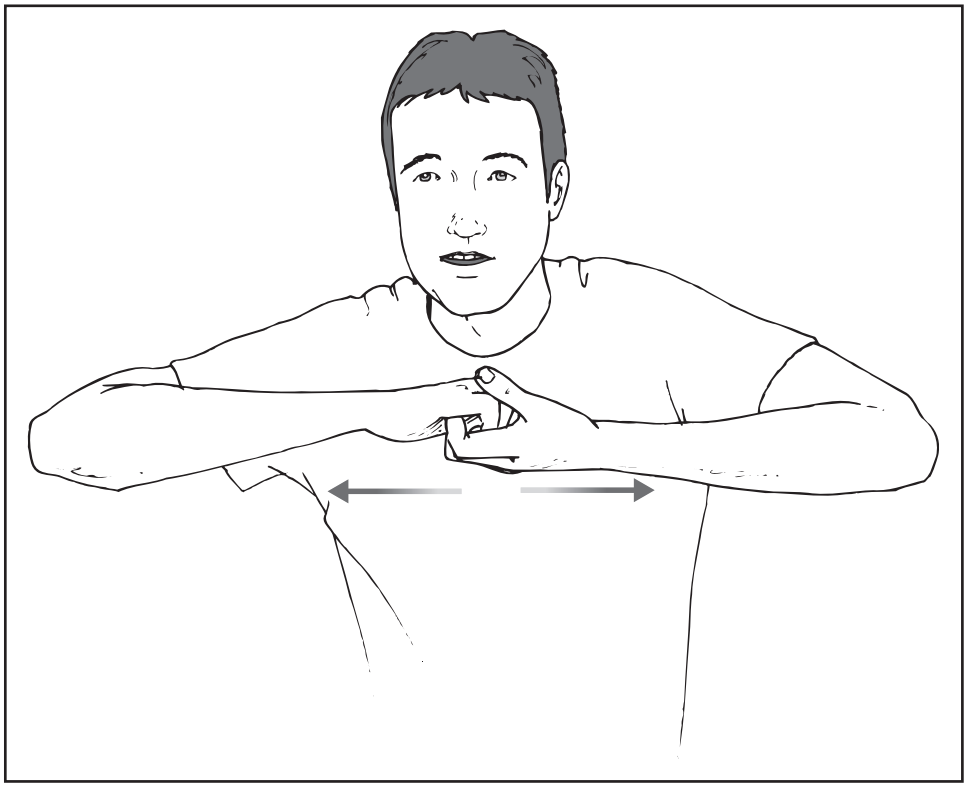
Clinical Note: Take care not to strain the laryngeal or cervical muscles during these exercises. In addition, do not do these exercises if the vocal folds are inflamed or a hyperfunctional pathology is present, as in the case of vocal fold nodules or hemorrhage.

Adduction Exercise 1

1. Sit in a straight back chair and clasp your hands in front of your chest.

2. Take a deep breath.

3. Try to pull your hands apart while holding a steady "ahhh" for 10 seconds.

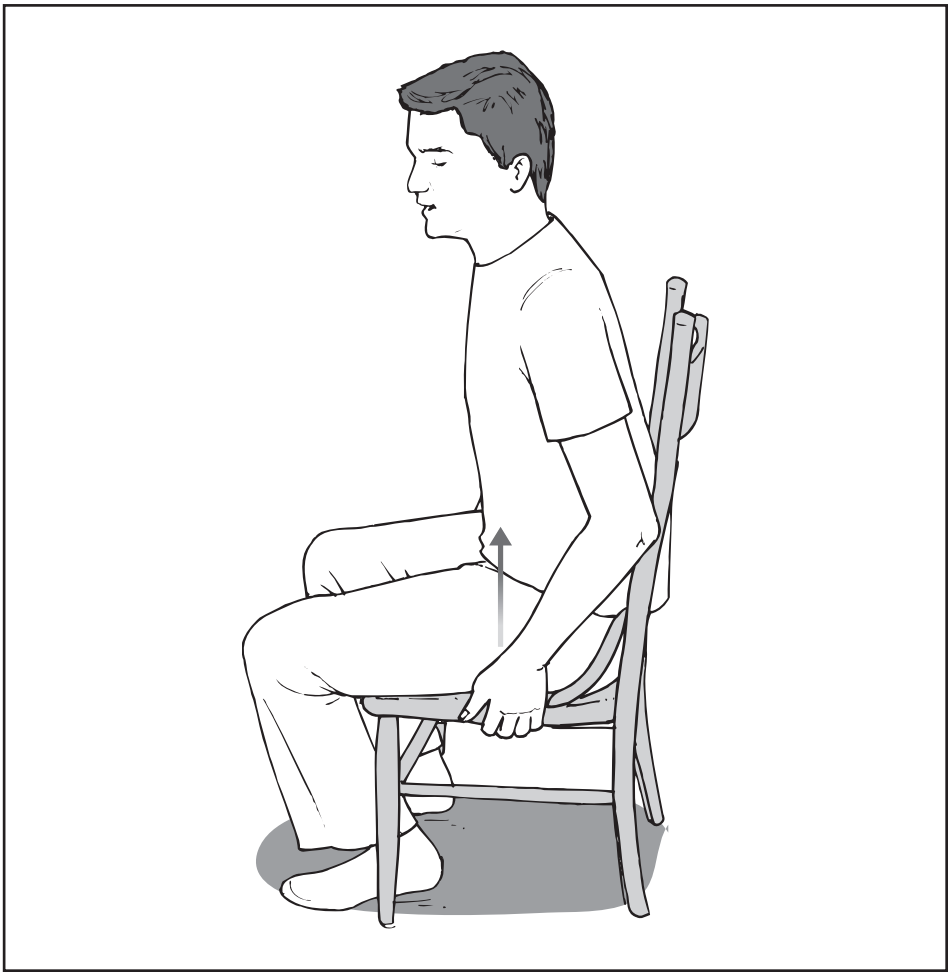


Target: vocal fold (VF) adduction

Goal: to improve medial glottal closure through the use of tension

Adduction Exercise 2

1. Sit in a straight back chair and place your hands under the seat of the chair.
2. Take a deep breath.
3. Pull up on the chair while holding a steady "ahhh" for 10 seconds.



This exercise may be repeated with various vowel sounds as well as a sustained hum. Use increased volume on subsequent trials.

Respiration Exercises

Target: respiration/airflow

Goal: to facilitate voice production

Background: The technique of diaphragmatic breathing is the basis for easy voice production.

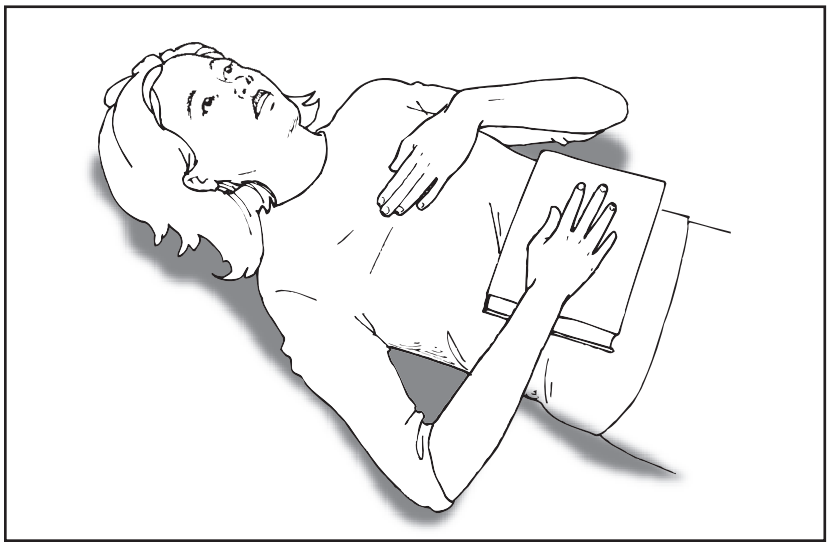
The diaphragm is the dome-shaped muscle that separates your lungs from your visceral organs (stomach, liver, intestines, kidneys). It is located at the bottom of your rib cage (See Figure 10, page 13, Chapter 1).

It is important to breathe using your diaphragm for many reasons:

- You are able to reach higher total lung volumes (more space) and inhale more air.
- It does not involve active chest or clavicular movement (doesn't involve external laryngeal muscles) and improves relaxation of the laryngeal posture.
- Support and control of air by the diaphragm reduces the need for laryngeal control of airflow.

Diaphragmatic Breathing Practice

1. Lie on your back.
2. Place a book on your diaphragm.
3. Place one hand on the book and one hand on your chest.
4. Raise the book as you breathe IN without raising your chest.



Clinical Note: Make sure that the patient is not contracting abdominal muscles to move the book but is using air to expand her lungs. Cue air exchange through the use of audible inhale/exhale (e.g., Have the patient purse her lips as she blows in and out to "hear" the movement of air).

Respiration Exercises

Target: respiration/airflow

Goal: to learn airflow control techniques

Background: Once the patient has learned the technique of diaphragmatic breathing (page 104), it is important to learn control of airflow. The exhalation phase should be at least twice as long as the inhalation phase.

Inhale/exhale with a 1:2 ratio (count out loud to cue patient). Have the patient place his hand on the diaphragm for a tactile cue and/or have him use audible inhalation/exhalation/pursed lips for an auditory cue.

Inhalation/Exhalation Practice

Cue: "I will count out loud. I want you to inhale for 3 seconds and exhale for 6 seconds."

- Continue with the following intervals: 4 seconds/8 seconds
  5 seconds/10 seconds
  6 seconds/12 seconds
- Randomize trials above.
- Use a voiceless consonant to monitor exhalation (/s/).
- Use sustained phonation practice (/m/ or /a/).

Target: control of airflow during phonation

Goal: to use continuous and controlled airflow during controlled automatic speech tasks

---

Airflow/Phonation Practice

Cue: "After a diaphragmatic breath, count from 1-20 out loud, taking a breath after every 5 numbers."

"... 1-20 with a breath after every 4 numbers."

"... 1-50 with a breath after every 10 numbers."

- Continue with other sets of multiples, asking the patient to control the coordination of breathing and voice use. Monitor vocal quality for evidence of strain or tension.
- If the patient is able to reach 10 numbers on one breath, have her count with voiceless onset/breathy consonants using controlled and continuous airflow. This task requires more airflow.

  Cue and model an aspirated initial consonant:

  "Count from 30-39 on one breath using a slightly extended, breathy /th/.

  "Count from 40-49 on one breath using a slightly extended, breathy /f/.

  "Count from 50-59 on one breath using a slightly extended, breathy /f/.

  "Count from 60-69 on one breath using a slightly extended, breathy /s/.
- Once the patient is able to perform these tasks in sets, have her "count from 30 to 80" taking a breath after every ten numbers. This task will aid in coordination of breathing during running speech.

Target: coordination of airflow

Goal: to reinforce the use of breath support and coordination of breathing during speaking

Background: Phrasing and meaning is usually determined by a speaker's use of pause. Often the breathing pattern is dictated by the text.

You can also practice pause and breathing patterns with nursery rhymes, poems, short songs, etc. For additional carryover, use materials such as newspapers and magazines where the "rhythm" is not established.

Airflow Coordination Practice

Cue: "Read the 'Pledge of Allegiance' and take a breath at every slash (/) marked in the text. Make sure you are taking appropriate size breaths for the length of the utterance and remember to let air out as you talk."

I pledge allegiance to the flag / of the United States of America / and to the republic for which it stands / one nation under God / indivisible with liberty / and justice for all.

Now try it with a different breathing pattern:

I pledge allegiance to the flag of the United States of America / and to the republic for which it stands / one nation under God / indivisible with liberty and justice for all.

Respiration Exercises

Target: coordination of airflow

Goal: to reinforce the use of breath support and coordination of breathing during speaking tasks of increasing length

Background: Have the patient read the following run-on sentence out loud and focus on the use of pauses to replenish airflow at semantically-appropriate breaks.

Cue: "The following sentence increases in length each time it is repeated. As the sentence gets longer, you will need to pause to take in air to complete the next phrase. Try to use natural pauses based on the meaning of the sentence."

Sentence Length Phrasing Task

Excuse me.

Excuse me, miss.

Excuse me, miss, I need directions.

Excuse me, miss, I need directions to the store.

Excuse me, miss, I need directions to the store on Main Street.

Excuse me, miss, I need directions to the store on Main Street that sells toys.

Excuse me, miss, I need directions to the store on Main Street that sells toys for babies.

Excuse me, miss, I need directions to the store on Main Street that sells toys for babies and toddlers.

Excuse me, miss, I need directions to the store on Main Street that sells toys for babies and toddlers from a gift registry.

Excuse me, miss, I need directions to the store on Main Street that sells toys for babies and toddlers from a gift registry for expectant mothers.

Excuse me, miss, I need directions to the store on Main Street that sells toys for babies and toddlers from a gift registry for expectant mothers who need essentials.

Excuse me, miss, I need directions to the store on Main Street that sells toys for babies and toddlers from a gift registry for expectant mothers who need essentials and are hoping for a shower.

Excuse me, miss, I need directions to the store on Main Street that sells toys for babies and toddlers from a gift registry for expectant mothers who need essentials and are hoping for a shower to receive gifts.

Excuse me, miss, I need directions to the store on Main Street that sells toys for babies and toddlers from a gift registry for expectant mothers who need essentials and are hoping for a shower to receive gifts from families and friends.

Excuse me, miss, I need directions to the store on Main Street that sells toys for babies and toddlers from a gift registry for expectant mothers who need essentials and are hoping for a shower to receive gifts from families and friends because having a baby is very expensive.

Excuse me, miss, I need directions to the store on Main Street that sells toys for babies and toddlers from a gift registry for expectant mothers who need essentials and are hoping for a shower to receive gifts from families and friends because having a baby is very expensive these days.

Respiration Exercises

Target: airflow (to be used with patients who exhibit glottal attack or hard/tense onset of phonation)

Goal: to start airflow prior to voicing in order to reduce tension associated with voice production

Background: Have the patient initiate voice on an aspirated /h/ to start airflow prior to phonation. Cue for continuous airflow throughout word production. The voice should not sound breathy or whispered.

Once the patient is able to start airflow on an extended /h/, have him shorten the word to a normal rate but continue to "think air on the H."

Cue: "Hold the /h/ sound slightly longer than normal to get your air started and then say the word. Continue to exhale and let the air out during the word. Continue the air from the H into the vowel that follows."

H Words—Single Syllables

Example: "hhhhair"

hail	hawk	herd	hoist
hair	haze	hide	hold
half	head	high	hole
hall	heal	hill	home
halt	health	hike	hood
ham	heart	him	hoof
hand	hearth	hind	hoop
Hank	heave	hint	hoot
hard	heed	hip	hop
harm	height	hit	hope
harsh	help	hitch	horn
hash	hem	hive	horse
haste	hen	hoax	how
hate	her	hoe	hump
haul	Herb	hog	hush

Target: airflow (to be used with patients who exhibit glottal attack or hard/tense onset of phonation)

Goal: to start airflow prior to voicing in order to reduce tension associated with voice production

Background: Have the patient practice with extended /h/ until airflow is promoted, and then shorten the word to a normal rate of production but continue to "think H."

Cue: "These words are longer so be sure to let air out through both syllables."

H Words—2 Syllables

Example: "hhhhockey"

habit	hateful	heartless	hollow
hairbrush	haven	helmet	holly
halfway	having	hermit	holster
hammock	Hawthorne	hero	homesick
hamstring	hazard	hiding	homespun
handy	hazing	highway	honey
happy	headache	himself	hopeful
harness	heading	hippo	hormone
hasten	headstone	hockey	hula
hatchet	healthy	holler	hygiene

Target: airflow (to be used with patients who exhibit glottal attack or hard/tense onset of phonation)

Goal: to obtain continuous airflow throughout sentences of increasing length

Background: Use modeling to promote correct production.

Incorrect: "Honk the horn." (pause in air between words)
Correct: "Honk-the-horn" (continuous airflow)

Cue: "Let's work on phrases and sentences. Continue to let air out through the whole phrase without stopping your air between words."

H Phrases and Sentences

Hit his head	He hated hurricanes.
Honk the horn.	Hope for hot ham hash.
Hitchhike home.	Hobby horses hop high.
Hum a harmony.	Honeymoon in Houston
Hearths have heat.	Heartthrob in Hollywood
Hail hit the house.	Henry hid the horseradish.
Help Hillary home.	Hal hula-hoops to Hawaii.
Held her head high	Hank's home is on the hill.
Helmets hide heads.	Hamburgers and hot chocolate
Hear his hypothesis.	Her hockey skate hurt her heel.
Harriet held the hen.	Horrible hair for Homecoming
Horses have hooves.	He hates honeybees and hornets.
Hold the handlebars.	He was hesitant to hypnotize her.
Hot, humid Honduras	Herman had horrible handwriting.
Hanna hates this hairbrush.	Heather is a homemaker in New Hampshire.

Target: airflow (to be used with patients who exhibit glottal attack or hard/tense onset of phonation)

Goal: to obtain continuous airflow throughout sentences of increasing length

---

Cue: "The following sentences contain multiple F sounds. Practice using continuous airflow throughout each sentence. Use slightly extended /f/ productions."

F Phrases and Sentences

Fred fishes for flounder.
Florists sell fresh flowers.
Her fingers dialed the phone.
Fortune tellers tell the future.
The family enjoyed the feast.
Pharmacists fill prescriptions.
Four golf balls fell in the ferns.
The fern leaf blew off the cliff.
The fawn frolicked in the forest.
Felix the feline feasted on a fish.
Family photographs fill the frames.
Five first graders started a food fight.
Farmers put fences around their fields.
The chef cut the fish filet with a knife.
The fig filling made a fantastic dessert.
I found a fancy ruffled dress for the festival.
The firefighter fought the fire from the roof.
The fiberglass furnace filter was filled with fuzz.
For breakfast, fresh coffee and waffles fill me up fast.
Jeff found the finest office furniture on the sales floor.
Fashionable fabrics were featured in the fashion show.
When you cough, cover your mouth with a handkerchief.
Upon finding the fortune in the safe, the sheriff handcuffed the thief.
Phyllis forgot about her fourth physics assignment on the forces of flight.
The forty-year-old female filed her fingernails on the front porch of the farmhouse.

Target: airflow (to be used with patients who exhibit glottal attack or hard/tense onset of phonation)

Goal: to obtain continuous airflow throughout sentences of increasing length

---

Cue: "The following sentences contain multiple S sounds. Practice using continuous airflow throughout each sentence. Use slightly extended /s/ productions."

S Phrases and Sentences

Sweet juice sells fast.

Saddles rest on horses.

Soft sounds soothe the class.

Sell some socks and sunglasses.

Surfers ride the surf into the sand.

Sing the first verse of the silly song.

Sara signaled for the shoe salesperson.

Sports cars swerve when going too fast.

Search for the satin slippers in the store.

Sam scouted the produce section for celery.

Susan was so anxious waiting to sing on stage.

Sixteen silk suits were sold during the spring sale.

Serious servants separate soiled linens from the rest.

Congress passed the bill to save the southern sea seals.

Scrap silverware satisfies scavengers who seek small stuff.

Scott secretly signed his sloppy signature on the assignment.

Baseball, basketballs, and bicycles were spread out on the grass.

The lighthouse beam shined brilliantly across the sea to warn cautious sailors.

Sue slurped strawberry shakes at the skating rink every Sunday from six until seven.

While sitting helpless in the safe, the boss of the business was saved by the city police.

Phonation Exercises

Target: continuous voicing

Goal: to elicit continuous vibration/phonation

Background: The following words only contain voiced consonants to promote continuous vibration of the vocal folds. Listen for breaks in phonation.

Cue: "The following words require your vocal folds to vibrate without any breaks. Say the following words and continue easy phonation."

Continuous Voiced Words

bored	eardrum	lazy	these
Bradley	earrings	living	those
breezy	endearing	Louisiana	Virginia
daisy	games	margin	vision
David	gaze	muzzle	void
dazed	geranium	olives	zebra
diary	gleaming	raisin	Zelda
diving board	grades	remember	zig-zag
driving	Irving	roses	zoology

Target: continuous voicing

Goal: to maintain vibration using voiced continuants

Background: The following phrases and sentences contain multiple voiced continuants (/v/ and /z/) to promote vocal fold vibration.

Cue: "The following phrases and sentences contain multiple /v/ and /z/ consonant sounds. Focus on maintaining the vibration of your voice."

V Phrases/Sentences	Z Phrases/Sentences
Very valuable	Zebras at the zoo
Vicki's violets	His knees are bruised.
Beverly and Victor	Knows the ZIP code
Vacation in November	Zoe has a xylophone.
Lives in Vienna	Liz plays jazz.
A villa in the valley	Zack is a zoologist.
Yvonne drives a Volvo.	Zip up his zipper.
Vinnie believes in vampires.	These are lazy days.

Phonation Exercises

Target: voiceless-voiced transitions

Goals: to increase awareness of vocal fold vibration
to improve transition from a voiceless consonant to a voiced vowel sound

Background: A patient will often have difficulty "getting her voice started" after a voiceless consonant. The following tasks will aid in patient self-monitoring and awareness of the onset of the voice.

Task 1: Have the patient produce a sustained phoneme in isolation to contrast voiceless with voiced productions.

Cue: "Say and hold a /s/ sound (model "ssss"). Now say and hold a /z/ sound (model "zzzz"). Feel the difference on the /z/ when your vocal folds vibrate versus a /s/, which is mostly air."

Task 2: Have the patient read the following list of words to contrast "voiced" vs. "voiceless" productions.

Cue: "Read these words in pairs and focus on increased airflow on the second word without pushing your voice on the vowel sound."

Voiced and Voiceless Minimal Pairs

Voiced	Voiceless	Voiced	Voiceless
vat	fat	zip	sip
veal	feel	zing	sing
vine	fine	zoo	Sue
van	fan	zeal	seal
vase	face	Zeke	seek
vault	fault	Zack	sack
vend	fend	zinc	sink
veil	fail	zit	sit
vast	fast	zap	sat
		zoot	suit

Phonation Exercises

Target: voiceless-voiced transitions

Goals: to increase awareness of vocal fold vibration
to improve transition from a voiceless consonant to a voiced vowel sound

Background: A patient will often have difficulty "getting his voice started" after a voiceless consonant. The following tasks will aid in patient self-monitoring and awareness of the onset of the voice.

Cue: "Read these words in pairs and focus on the easy phonation on the first word without pushing your voice on the vowel sound."

Voiceless and Voiced Minimal Pairs

Voiceless	Voiced	Voiceless	Voiced
tame	dame	came	game
tomb	doom	Kate	gate
tot	dot	cut	gut
tuck	duck	come	gum
ton	done	kilt	guilt
team	deem	kill	gill
pat	bat	call	gall
pump	bump	cheap	jeep
pass	bass	chive	jive
punch	bunch	choke	joke
push	bush	chunk	junk
Pete	beat	chug	jug
puck	buck	chill	Jill
pack	back	chest	jest
pounce	bounce	chin	gin
pit	bit		

Target: voiceless-voiced transitions

Goal: to encourage the easy transitions from voiceless consonants to voiced vowels

Background: The following words contain only voiceless consonants (no vocal fold vibration). Listen for pitch or aphonic breaks going into the vowels and/or vocal strain.

Cue: "The following words contain consonant sounds that do not require vocal fold vibration. Use airflow from the consonants to produce easy vowel sounds."

Voiceless Consonant Words

ashes	poppy
caps	potty
Cathy	puffy
faith	push
fast	sachet
fifty-two	sassy
fishy	Scottish
happy	shaft
Hawaii	soup
Heath	spaceship
hip-hop	teeth
hope	thick
hotel	thief
kitty cat	thought
pasta	ticket
Patty	tick-tock
peace	whip
physics	whiskey
pity	without

Target: easy onset/reduction of glottal attack

Goal: to produce easy onset of words starting with vowels in order to reduce tension

Background: Patients exhibiting hyperfunctional voice disorders often have difficulty with vowel-initial words because all vowels are "voiced" and certain vowels are tense (vs. lax) in production (short vowels are often more difficult than long vowels).

Task 1: Have the patient say the following word pairs in order to encourage airflow/reduce glottal attack when initiating the voice on a vowel sound.

Cue: "Now that you have learned to start your voice using air, I want you to do that with sounds that are not breathy. All of the following words start with vowels. Practice using an 'H' first and then taking the 'H' away, but still use air to get your voice started."

Example: heat/eat
(The vowel should sound the same in both words without hard attack/onset on the second word.)

Task 2: Have the patient say just the vowel onset words as you listen for glottal attack and cue for airflow.

Cue: "Now say just the words that begin with vowels, but still let air out first to start your voice easy."

Easy Onset Practice

hail • ale
hair • air
hall • all
ham • am
harm • arm
has • as
hear • ear
heat • eat
heel • eel
high • I
hike • Ike
hill • ill
his • is
hit • it
hive • I've
how • ow

Target: easy onset of vowels—connected phonation

Goal: to maintain production of easy onset/reduce glottal attack of vowels throughout sentence production

Note: This exercise should follow easy onset practice at the word level.

Cue: "The following phrases and sentences contain multiple words that start with vowels. Use the same techniques of easy onset, airflow, and relaxed voicing throughout the sentence. Do not start and stop your voice." (Voice quality should not sound staccato.)

Vowel Onset Phrases/Sentences

Open up.	Our Uncle Alan is always angry.
in and out	It is impossible to understand arithmetic.
all around	Eric's umbrella is under the overhang.
over and out	Astronauts are unbelievably ambitious.
artist's easel	Everyone asks if Amy is my aunt.
another option	I'll have already eaten enough oatmeal.
eager adolescents	Emma is an unusually artistic adolescent.
Open an envelope.	If you enter early, attendants are available in the aisles.
ingenious ideas	Actors arrive at the awards in expensive attire.
Einstein's inventions	Accountants are always extremely accurate.
all of your efforts	Ethan and Ivana are always at the opera.
extremely egotistical	Olivia was embarrassed by all of Arthur's attention.
impossible expectation	It was an eye-opening experience for Allison.
Another option always exists.	It is an effort to understand Uncle Edward's accent.
Ellen is always around at Easter.	Otto's used automobiles are usually under eight thousand dollars.

Target: easy onset of vowels—paragraph level

Goal: to maintain production of easy onset/reduce glottal attack of vowels throughout a connected speech task (also monitor coordination of breath support and phrasing)

Background: This exercise should follow easy onset practice at the phrase and sentence level.

Cue: "The following paragraph contains mostly words that start with vowel sounds. Use the same techniques of easy onsets and relaxed voicing that you did during the vowel sentence reading tasks, but remember to replenish your breath support to allow for running speech."

Vowel Intense Paragraph

Emma Oliver is approximately eleven years old. As many other adolescent girls, Emma is overly concerned about her appearance. Every afternoon, Emma asks to be excused to use the ladies' room to insure that everything is "just so." It is unacceptable not to be one of the "in crowd" and being attractive assures your inclusion. Even at the early age of eleven, a girl allows herself to be influenced by others. Emma's mother always asks her "Why is it so important to be like everyone else?" "It just is! You wouldn't understand because you are old," answers Emma. At age eleven, anyone over thirty is old.

Target: intonation

Goals: to promote self-monitoring of rising vs. falling intonation
to maintain pitch stability on sentence endings (avoid glottal fry)

Background: In the English language a drop in pitch signifies the end of a phrase or sentence. Have the patient monitor her voice so it doesn't drop too low at the end.

Cue: "Say these two sentences as a pair, the first as a question and the second as a statement. Be careful not to drop your pitch too low on the endings."

Intonation Practice—Sentences

You want to go to the park?	There is no more room in this cabinet?
You want to go to the park.	There is no more room in this cabinet.
I have to pay my bills on Wednesday?	It has been six months since we last spoke?
I have to pay my bills on Wednesday.	It has been six months since we last spoke.
His mother's name is Susan?	Someone is knocking at the door?
His mother's name is Susan.	Someone is knocking at the door.
The visiting team won the game?	Your prom dress is lavender?
The visiting team won the game.	Your prom dress is lavender.
Tomorrow we will have the party?	It is too late to call her at home?
Tomorrow we will have the party.	It is too late to call her at home.
Audrey cut her hair short?	Kimberly's cat has had kittens?
Audrey cut her hair short.	Kimberly's cat has had kittens.

Target: pitch vs. volume/inflection

Goals: to use intonation to emphasize a word within a running sentence
to improve use of stress (without volume or "push") and vocal variability

Background: The following sentences are organized in sets. Have the patient emphasize the word that is in **bold**.

Clinical Note: If the patient has difficulty with emphasis on a single word, use the questions on the next page to elicit the desired intonational pattern.

Cue: "Say the following sentence sets. Emphasize the word that is in bold letters. Use **pitch** inflection to stress that word—not **volume**."

Intonation Practice—Words

My kitten's name is Casey.
My **kitten's** name is Casey.
My kitten's name is **Casey**.

Jack goes to college in Pittsburgh.
Jack goes to **college** in Pittsburgh.
Jack goes to college in **Pittsburgh**.

I have to work at 8 a.m. on Thursday.
I have to **work** at 8 a.m. on Thursday.
I have to work at **8 a.m.** on Thursday.
I have to work at 8 a.m. on **Thursday**.

Phillip's hobby is antique car repair.
Phillip's **hobby** is antique car repair.
Phillip's hobby is antique **car** repair.
Phillip's hobby is antique car **repair**.

I would like a **silver** bracelet for graduation.
I would like a silver **bracelet** for graduation.
I would like a silver bracelet for **graduation**.

Eric painted his bedroom blue.
Eric **painted** his bedroom blue
Eric painted **his** bedroom blue.
Eric painted his **bedroom** blue.
Eric painted his bedroom **blue**.

Target: pitch vs. volume/inflection

Goals: to use intonation to emphasize a word within a running sentence
to improve use of stress (without volume or "push") and vocal variability

Background: Present the questions in the right column below to elicit the desired response from the patient (left column). Give the patient page 123 to read.

Cue: "Say the following sentence sets. Emphasize the word that is in bold letters. Use **pitch** inflection to stress that word—not **volume**."

Intonation Practice—Words

Patient	*Clinician*
My kitten's name is Casey.	Is **his** kitten's name Casey?
My **kitten's** name is Casey.	Is your **dog's** name Casey?
My kitten's name is **Casey**.	Is your kitten's name **Fluffy**?
Jack goes to college in Pittsburgh.	Does **Susan** go to college in Pittsburgh?
Jack goes to **college** in Pittsburgh.	Does Jack go to **camp** in Pittsburgh?
Jack goes to college in **Pittsburgh**.	Does Jack go to college in **Virginia**?
I have to work at 8 a.m. on Thursday.	Does your **wife** have to work at 8 a.m. on Thursday?
I have to **work** at 8 a.m. on Thursday.	Do you have to **swim** at 8 a.m. on Thursday?
I have to work at **8 a.m.** on Thursday.	Do you have to work at **9 a.m.** on Thursday?
I have to work at 8 a.m. on **Thursday**.	Do you have to work at 8 a.m. on **Tuesday**?
Phillip's hobby is antique car repair.	Is **John's** hobby antique car repair?
Phillip's **hobby** is antique car repair.	Is Phillip's **occupation** antique car repair?
Phillip's hobby is antique **car** repair.	Is Phillip's hobby antique **train** repair?
Phillip's hobby is antique car **repair**.	Is Phillip's hobby antique car **sales**?
I would like a **silver** bracelet for graduation.	Would you like a **gold** bracelet for graduation?
I would like a silver **bracelet** for graduation.	Would you like a silver **ring** for graduation?
I would like a silver bracelet for **graduation**.	Would you like a silver bracelet for your **birthday**?
Eric painted his bedroom blue.	Did **Sam** paint his bedroom blue?
Eric **painted** his bedroom blue	Did Eric **wallpaper** his bedroom blue?
Eric painted **his** bedroom blue.	Did Eric paint **your** bedroom blue?
Eric painted his **bedroom** blue.	Did Eric paint his **bathroom** blue?
Eric painted his bedroom **blue**.	Did Eric paint his bedroom **green**?

Target: resonance

Goals: to establish a more forward voice focus and improve vibratory sensations in the face (and alveolar ridge)
to reduce laryngeal focus (the vocal folds are in an easy, adducted position—not pressed or forced hyperadduction)

Background: Have the patient place his fingers on each side of his nose on the facial bones and produce a hum (/m/) to get tactile feedback and focus vibration. The patient may need to adjust his pitch to obtain maximal vibration.

Cue: "I want you to hum and feel the vibration in your face. Notice how you are not pushing from your larynx but achieving a resonant, clear vocal tone."

Tactile Vibration

Target: nasal vs. oral resonance

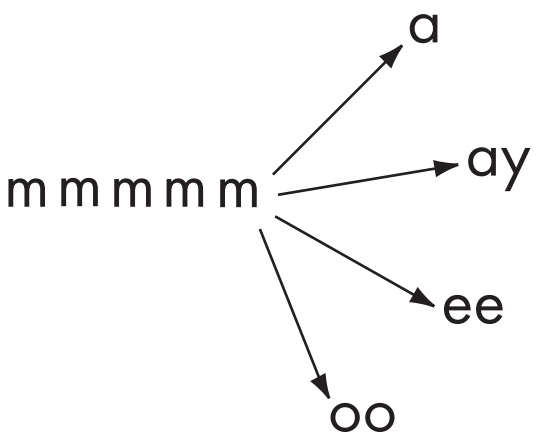
Goals: to promote both nasal and oral resonance
to reduce laryngeal focus

Background: Once the patient is able to hum and maintain forward focus, practice adding a vowel.

Cue: "Say the following syllables. Start with a hum to focus your voice and produce the vowel with an open throat. Think about opening the space in the back of your throat to produce the vowel."

Examples: mmmmaaaa
mmmmaaay
mmmmeeeee
mmmmoooo

M — Single Syllables



Resonance Exercises

Target: resonance/reduce laryngeal focus

Goals: to promote the use of resonant voicing
to refocus vibration away from the larynx during phonation

Cue: "When you hum, your larynx is in a relaxed state. Start all of the following words on a hum and carry it through the word without dropping your voice into your throat."

M — one-syllable words

Example: mmmmash

mad	meek	monk
made	melt	month
mail	merge	mood
main	mess	moon
make	met	moose
mall	mild	mop
malt	mile	more
man	milk	moss
map	mind	most
mare	mine	moth
mark	mink	mound
mash	mint	mourn
mask	mist	mouse
mass	mix	mouth
match	mob	move
may	mode	munch
meal	mold	mush
mean	mole	must
meat	mom	my

Target: resonance/reduce laryngeal focus

Goals: to promote the use of resonant voicing
to refocus vibration away from the larynx during phonation

Cue: "Continue using your forward, resonant voice on these longer words. Start your voice on a hum if you need to establish a higher vibration."

M — two-syllable words

Example: mmmmother

machine	member	mohawk
magic	memo	moldy
maiden	menace	molten
mailbag	merger	monarch
major	merit	money
mango	messy	monkey
manmade	metric	monster
maple	middle	moody
market	mighty	moonbeam
marshall	million	morning
mascot	mindless	mouthpiece
master	minute	movie
matchbox	misread	mower
measure	mitten	muscle
meatloaf	mixer	music
melon	mobile	musty
melted	model	myself

Target: resonance/reduce laryngeal focus

Goal: to maintain use of resonance and reduce laryngeal focus during sentence production

---

Cue: "Let's try sentences using a resonant voice. Remember to keep the vibration in your oral and nasal cavities—away from your throat."

M — Sentences

Meet my mom.
Mix mint milk.
Merge more movies.
Moths make a mess.
March for a mile.
Mark my mailbag.
Make maple malt.
Mean marketers mumble.
Munch on mushy melons.
March on Main Street.
Meet the man at the metal mine.
Measure a million miles.
Muddy mowers make a mess.
Master movers never mess up.
Metric machines mean more money.
Mark the message before I move.
Mom melted my magic mascot.
Middle school menaces are mean.
Musicians' mouthpieces make music.
Monsters move in the moonbeams.
Morning memos must be read in the Marines.
Military messengers sent the memos to me.
My mouse and monkey wear mini mittens.
Members made mobiles with modern matchboxes.
Monarchs love misty mangos in the morning.
Mountain climbers are mystified by monumental peaks.
Mounds of mud messed up the merging motorists.
Moss and mold are not manmade materials.
Markets in Montana collect money from mountaineers.
Mysterious marble is magnified with a microscope.
Marathon runners move quickly on the last mile.
Miniature mice made a home in my mousetrap.
Multiple millionaires manufacture machines with modern microchips.

Oral Resonance Exercises

Targets: self-identification
reinforcement of oral resonance using vowel sounds

Goals: to facilitate the use of a relaxed oropharyngeal posture to improve oral resonance
to practice an "open-mouth" posture during vowel production

Cue: "The following words and short phrases contain vowels that are open or more relaxed. Focus on opening the back of your throat to produce these vowels. Relax the back of your tongue to increase the space in the back of your mouth." (Model "over-exaggerated" vowel production.)

Open Vowels

Words

phone	spoon	bomb	roam	
slow	sleuth	taught	woven	
comb	shoe	boss	loft	
stove	loose	blue	trauma	
show	soon	suit	lost	
loan	truth	choose	slot	
toe	chose	loot	smog	
hose	post	food	hot	
soft	roll	zoom	moss	
brought	home	smooth	dot	
shot	boat	booth	whose	
stop	smoke	moose	mood	
pot	mold	snow	hoop	
blot	poem	blow	doom	
pod	drop	rope	goose	
plot	Tom	load	loop	
common	rod	coat	tomb	
loom	dog	foam	Zeus	
stoop	spot	cough	deuce	

Phrases

blue suit
whose loot
soup spoon
common law
lost shoe
zoom zoom
tall Tom
all talk
too soon
tow rope
new boat
bomb squad
hot stove
go home
slow poke
cold snow
pawn shop
long rod
loose coat

Oral Resonance Exercises

Targets: reduction of laryngeal tension during the production of tense vowel sounds
use of increased oral resonance to reduce laryngeal tension

Goals: to self identify tension and use a more relaxed laryngeal posture during the production of tense vowels
to improve oral resonance and increase easy airflow on the production of tense vowels

Background: Contrast this task with open vowels (page 130).

Cue: "The following words contain vowels that are tighter or more tense in their production. Continue to use an open throat as you say these words and phrases."

Tense Vowels

Words

/ae/	/ee/
mast	sneeze
sat	seat
bad	treat
dash	seize
sap	stream
fat	eat
track	please
bat	release
practice	clean
vat	piece
vast	speech
past	beam
rat	beak
rash	sleeve
cash	spree
fact	wheeze
slap	police
saddle	sweet
catch	steam
bash	seam
dad	weep
stash	feet
fast	week
sack	tree
smack	beet
lap	team
battle	easel

Phrases

/ae/	/ee/
tax man	clean sweep
bad rash	team meet
sat back	lean meat
fat cat	eat wheat
fast track	please read
black saddle	sweet treat
dad's lap	steam heat
tack back	tree leaf
vast land	keep neat

Recommendations for Teachers

Reduce Background Noise

- Close windows and doors.
- Turn off unnecessary equipment (e.g., computers, overhead projectors).
- Make use of room decorations that absorb extraneous sound (e.g., curtains, rugs, student projects, wall hangings).
- Give students a specific time to gather belongings at the beginning of class in order to decrease background noise (e.g., rustling papers, backpack zippers).

Classroom Modifications

- Use marker boards to reduce the effects of chalk dust (e.g., allergies, dryness).
- Run a classroom humidifier (if allowed).
- Position student seating around your primary speaking position (circular seating vs. rows).
- Use classroom amplification.

Teaching Modifications

- Incorporate quiet reading, student projects, and question/answer sessions into your teaching style to build in "vocal rest time."
- Maintain good hydration while speaking.
- Don't talk through a cold or laryngitis. Use these days as "non-lecture" days.
- Use visual outlines and handouts to decrease verbal repetition of concepts/definitions.
- Use nonverbal cues to gain attention (e.g, ring a bell, turn lights off and on).
- Modify your teaching schedule. Break up lecture periods with labs and "hands on" electives for periods of vocal rest.

References

Mattiske, J., Oates, J., & Greenwood, K. (1998). Vocal problems among teachers: A review of prevalence, causes, prevention, and treatment. *Journal of Voice*, *12*, 489-499.

Martin, S. & Darley, L. (1996). *The teaching voice*. San Diego, CA: Singular Publishing.

McCabe, D. & Titze, I. (2002). Chant therapy for treating vocal fatigue among public school teachers: A preliminary study. *American Journal of Speech-Language Pathology*, *11*, 4.

National Center for Voice & Speech (2003). *www.voiceacademy.org*

Roy, N., Weinrich, B., Gray, S., Tanner, K., Toledo, S., Dove, H., Corbin-Lewis, K., & Stemple, J. (2002). Voice amplification versus vocal hygiene instruction for teachers with voice disorders: A treatment outcomes study. *Journal of Speech, Language, and Hearing Research*, *45*, 4.

Terminology for the Singing Voice (Singer's Jargon)

The following is a brief list of terms used by vocalists.

placement: use of forward focus to feel the vibrations of the facial bones
chest register: singing in the lower range with heavy tones for louder singing
head register: light tones used in soft or high singing

full voice: singing at maximum volume and capacity
marking: rehearsal singing; without use of full voice
mezza voice: singing with half-voice

legato: smooth and connected
staccato: each note separated

vibrato: rapidly fluctuating or pulsating quality (regular oscillation between two notes)
falsetto: adjustment in technique to obtain the highest notes of the male voice

alto: the lowest-pitched female singing voice
bass: the lowest-pitched male singing voice
baritone: range slightly higher than a bass
soprano: the highest-pitched female singing voice
mezzo soprano: slightly lower than a soprano
tenor: the highest-pitched male singing voice

Adapted from *The Visible Voice*, Volume 1, No. 4, October 1992.

Care of the Singing Voice

- It is important that you drink a minimum of 64 oz. of water a day. Your urine should be clear if you are adequately hydrated. Steam inhalers are a convenient way to add additional moisture directly to your vocal tract.

- Limit your intake of caffeine and alcohol. They dehydrate the tissues in your body. You need to drink an equal size glass of water for every caffeinated or alcoholic beverage you drink to counteract the drying effects (in addition to your 8-10 glasses).

- Some medications can be drying to the vocal fold tissue and mucosa. Singing on dehydrated vocal fold tissue can lead to increased effort for singing and can put you at risk for a vocal fold injury. Antihistamines (taken for colds, sinus and allergy symptoms) are the best examples of this. Use these medications only with a lot of water (80+ oz.) and sparingly.

- Singers should avoid aspirin products at all times. This includes any anti-inflammatory drugs, such as Aleve, Motrin, or Advil. These agents thin the blood and predispose one to sustain a vocal fold hemorrhage, particularly if coupled with excessive voice use or with improper voice use. Tylenol (acetaminophen) is acceptable.

- Frequent throat clearing and coughing are abusive to the vocal folds and can injure the vocal fold tissue. A sip of water or a silent cough ("huh"—forceful burst of air with no voicing) are good alternatives.

- Frequent heartburn, a bitter taste in your mouth, or bad breath in the morning may be indicators of acid reflux, which may irritate your vocal folds and interfere with healthy singing. If you experience these symptoms, avoid eating late at night, go to bed with an empty stomach, eliminate spicy or high-acid foods, take a liquid antacid after meals and at bedtime, and elevate the head of your bed with blocks under the legs of the bed. If your symptoms persist, seek medical attention. You may need medication to reduce/control the amount of stomach acid you produce.

- Sudden hoarseness can be an indicator of an acute vocal fold injury and should be taken very seriously. If you become hoarse suddenly, do not try to sing through it. Stop talking and singing. You need to be seen immediately by a laryngologist to be certain you are safe to continue singing/performing.

Emerich, K. & Sapir, S. 1999, November
Reprinted with permission.

Laryngectomy Facts for the Patient

This information sheet can be used for pre/post-operative counseling to provide patients and caregivers with the basic facts about the changes associated with a laryngectomy.

Stoma = opening in your neck through which you breathe

1. Since you no longer breathe through your nose or mouth, your senses of smell and taste are diminished or absent.

2. You will be unable to blow your nose or sneeze.

3. Use humidification to reduce dryness.

4. When coughing, you should cover your stoma (not your mouth) as this is now the opening through which you will expel air, foreign material, or phlegm/mucous.

5. You will be unable to hold your breath or "bear down," making it difficult to lift heavy objects.

Protection of your stoma

1. You will need to protect your stoma from foreign material. Use stoma shields and covers made of breathable material.

2. Protect your stoma from water entering into your lungs.
   Use a shower guard or shower protector.
   Do not go swimming or engage in water sports.

Important Notes

Wear a MedicAlert bracelet and use an ID card in your wallet and/or sticker in your car to let others know that you are a "neck breather." These items are available through the American Cancer Society.

***CPR rescue breathing must be performed via your stoma to direct air into your lungs.

Social Phrases for Alaryngeal Speaking Practice

Hello.

Good-bye.

Good luck.

Go home.

Please.

Thank you.

Hurry up.

See you soon.

Come back later.

Happy Birthday.

Welcome home.

How are you?

Where are you going?

What time is it?

Leave me alone.

Who is it?

What is your name?

I need help.

I need an appointment.

Wash the dishes.

I need a drink.

Pay the bills.

Call the doctor.

Pass the salt.

I am cold.

I am fine.

I do not know.

I feel sick.

Multisyllabic Words

university

refrigerator

immediately

photography

kindergarten

cafeteria

impossibility

dictionary

Yugoslavia

motorcycle

encyclopedia

pediatrician

medication

difficulty

rehabilitation

professional

electrician

hippopotamus

terrifying

politically

ballerina

humidity

adolescent

misunderstanding

reliability

sophistication

identification

transportation