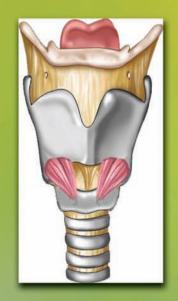
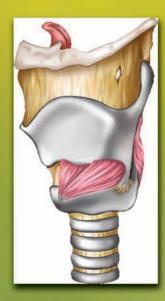
WWW. Jinguish this CEL

# Source. for Volce. DISOIGA Adolescent & Adult









Sandra Kasper Schwartz

# 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?					

# Case History Form, continued

high blood procesure	dry mouth
high blood pressure	dry mouth
low blood pressure	dry throat
heart attack	frequent throat clearing
stroke	chronic cough
shortness of breath	feeling of a "lump" in throat
asthma	difficulty swallowing
frequent bronchitis	frequent laryngitis
upper respiratory conditions	frequent sore throats
(Explain)	voice change
allergies	throat tightness
heartburn/gastroesophageal reflux	fatigue after speaking
stomach ulcers	difficulty getting volume
hiatal hernia	loss of voice in morning
gastrointestinal conditions	loss of voice at night
(Explain)	
cancer	
(Explain)	
TMJ	
1 • 1	
hearing loss Other medical conditions not listed above	
Ç .	
Other medical conditions not listed above	
Ç .	
Other medical conditions not listed above	
Other medical conditions not listed above	
Other medical conditions not listed above	
Other medical conditions not listed above	Date
Other medical conditions not listed above  Other changes related to your throat/voice	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 paran	neters of voic	e quality will be rated	upon completion of the f	following tasks:
1. Sustained vowel	s (/a/ and /i/)	for 3-5 seconds durati	on each.	
2. Sentence produc	tion:			
b. Ho c. We	w hard did he were away a	e hit him? a year ago.	d. We eat eggs ever e. My mama makes f. Peter will keep at	s lemon muffins. t the peak.
3. Spontaneous spe voice is function	•	ise to "Tell me about y	our voice problem." or "	Tell me how your
	Legend:	C = Consistent MI = Mildly Deviar MO = Moderately SE = Severely Devi	Deviant	
		·		SCORE
Overall Severity	A 4 E	A40	CF	C I/100
Roughness	MI	MO	SE	C I/100
	MI	MO	SE	· · · · · · · · · · · · · · · · · · ·
Breathiness	MI	MO	SE	C I/100
Strain				C I/100
	MI	MO	SE	
Pitch	(Indicate th	e nature of the abnorm	nality):	C I /100
	MI	MO	SE	C 1/100
Loudness	(Indicate th	e nature of the abnorm	nality):	
				C I/100
	MI	MO	SE	C I /100
	MI	MO	SE	C I/100
				C I/100
	MI	MO	SE	
Comments about re	sonance:	normal	other (Provide description	ion):
Additional features (wet/gurgly, or other		_	enia, aphonia, pitch instal	pility, tremor,
			Clinician:	
otto://www.acha.org/ND/	rdonlyres/70FF	500F_DAFE_4E2C_A60F_C	C11BDE6B1D67/0/22560_1.pd	

# 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 A	lmost Al	way	s-3	$\mathbf{A}$	lways	<b>-4</b>
F1.	My voice	makes it difficult for	people to hear me.		0	1	2	3	4
P2.		of air when I talk.	1 1		0	1	2	3	4
F3.	People hav	ve difficulty understar	nding me in a noisy ro	om.	0	1	2	3	4
P4.	-	of my voice varies th	_		0	1	2	3	4
F5.		•	g me when I call them	l					
	throughou	t the house.			0	1	2	3	4
F6.	I use the p	hone less often than l	would like.		0	1	2	3	4
E7.	I'm tense	when talking with oth	ers because of my voi	ce.	0	1	2	3	4
F8.	I tend to a	void groups of people	because of my voice.		0	1	2	3	4
E9.	People see	em irritated with my v	voice.		0	1	2	3	4
P10.	People ask	k, "What's wrong with	n your voice?"		0	1	2	3	4
F11.	I speak wi	th friends, neighbors,	or relatives less often						
	because of	f my voice.			0	1	2	3	4
F12.	People ask	me to repeat myself	when speaking face-to	o-face.	0	1	2	3	4
P13.	My voice	sounds creaky and dr	у.		0	1	2	3	4
P14.	I feel as th	nough I have to strain	to produce voice.		0	1	2	3	4
E15.	I feel othe	r people don't unders	tand my voice problen	n.	0	1	2	3	4
F16.	My voice	difficulties restrict my	personal and social l	ife.	0	1	2	3	4
P17.	The clarity	y of my voice is unpre	edictable.		0	1	2	3	4
P18.	I try to cha	ange my voice to sour	nd different.		0	1	2	3	4
F19.	I feel left	out of conversations b	because of my voice.		0	1	2	3	4
P20.	I use a gre	eat deal of effort to spe	eak.		0	1	2	3	4
P21.	My voice	is worse in the evenir	ng.		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 of	outgoing because of n	ny voice problem.		0	1	2	3	4
E25.	My voice	makes me feel handic	capped.		0	1	2	3	4
P26.	My voice	"gives out" on me in	the middle of speaking	g.	0	1	2	3	4
E27.		yed when people ask	-		0	1	2	3	4
E28.		arrassed when people	_		0	1	2	3	4
E29.	My voice	makes me feel incom	petent.		0	1	2	3	4
E30.	I'm asham	ned of my voice probl	em.		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.

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# 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 chocolate caffeine mint/menthol

onions spicy foods/hot sauce

citrus fruits/juices tomato-based foods (including salsa)

alcohol

### **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				
Water intake (8-oz. glasses per day) _			_	
Alcohol intake (drinks per week)				
Smoking history (packs per day, year o	quit)			
Current medications				
Allergies				
Occupation				
Hours per day spent talking				
Work environment (noise level, expose	ure to ir	ritants) _		
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.

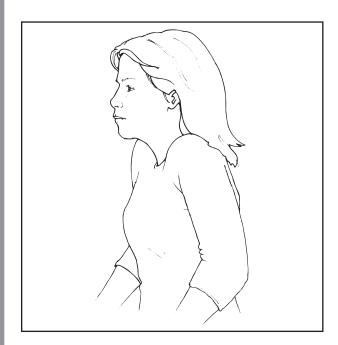
Factors	Modifications
Complaint of dryness/thick secretions	Increase water intake.
	Use humidification (may be contraindicated for patients with mold allergies).
	Use throat lozenges (not mint/menthol).
	Decrease caffeine intake.
	Decrease the use of antihistamines (if approved by a physician).
	Breathe 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**

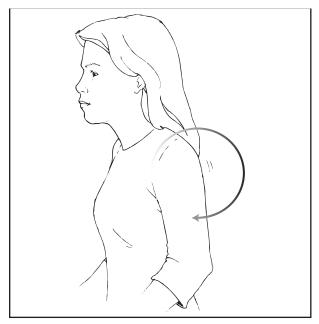
Target: cervical relaxation

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

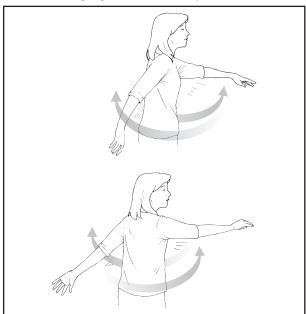
1. Shrug your shoulders, bringing them up toward your ears.



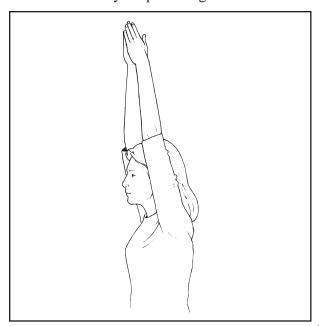
2. Roll your shoulders. Bring both shoulders up toward your ears and then roll your shoulders backward and downward.



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.



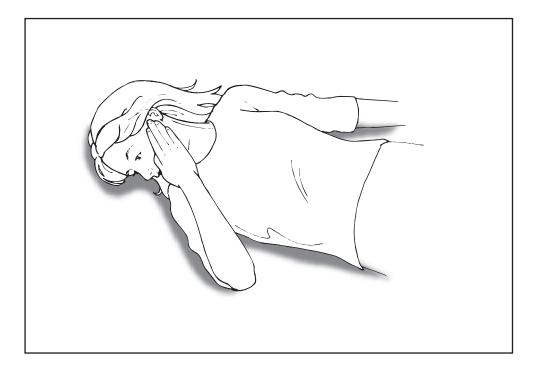
Target: extrinsic laryngeal tension

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.



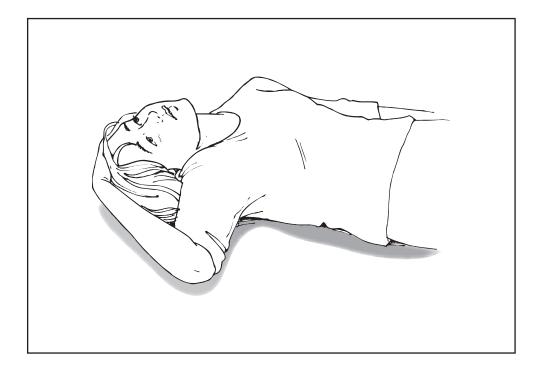
Target: extrinsic laryngeal tension

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.



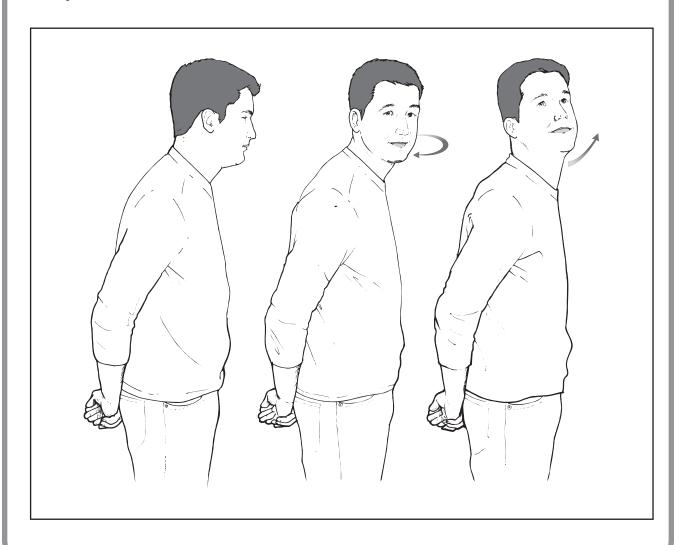
Target: extrinsic laryngeal tension

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.



Target: extrinsic laryngeal tension

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

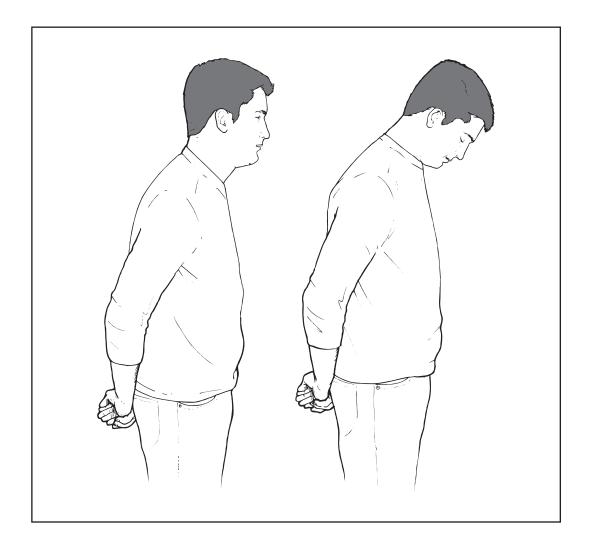
### **Chin to Chest**

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.

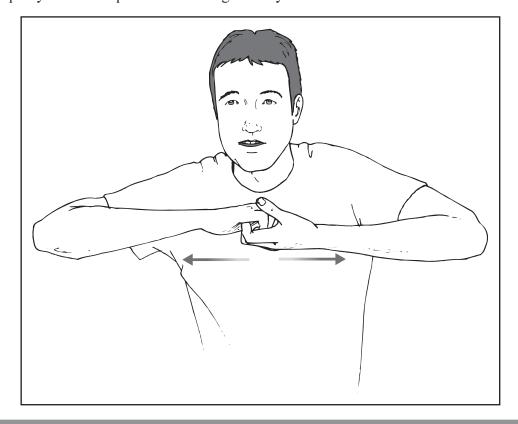
These exercises use pushing and/or pulling during phonation, resulting in increased vocal fold closure and increased subglottic air pressure. Use this increased pressure

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.



# **Adduction Exercises**

Target: vocal fold (VF) adduction

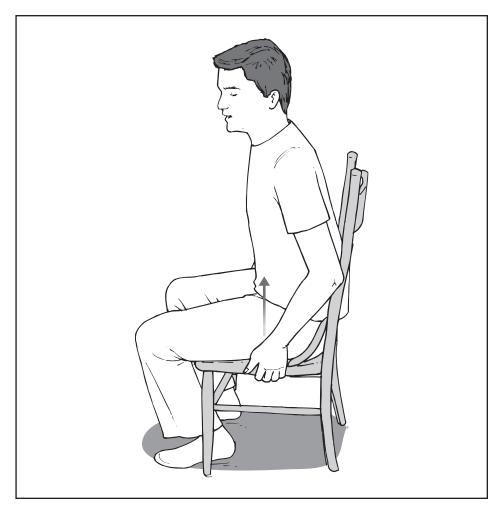
Goal: to improve medial glottal closure through the use of tension

### **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.

Target: respiration/airflow

Goal: to facilitate voice production

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

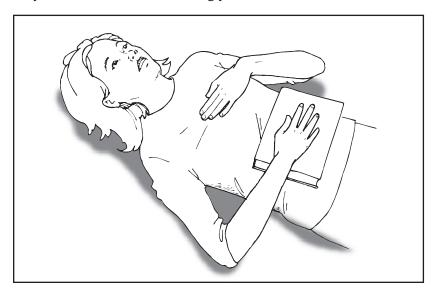
The diaphragm is the dome-shaped muscle that separates your lungs from your visceral organs (stomach, liver, intestines, kidneys). It is located at the bottom of your rib cage (See Figure 10, page 13, Chapter 1).

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).

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.

**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.

**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.

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.

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	Z00	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

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**

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

peace

pity

physics

### **Voiceless Consonant Words**

ashes poppy caps potty Cathy puffy faith push fast sachet fifty-two sassy fishy Scottish shaft happy Hawaii soup Heath spaceship hip-hop teeth hope thick thief hotel thought kitty cat ticket pasta tick-tock Patty

whip

whiskey

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

### **Phonation Exercises**

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. I would like a silver bracelet for graduation.

My **kitten's** name is Casey. I would like a silver **bracelet** for graduation.

My kitten's name is **Casey**. I would like a silver bracelet for **graduation**.

**Jack** goes to college in Pittsburgh. **Eric** painted his bedroom blue.

Jack goes to **college** in Pittsburgh. Eric **painted** his bedroom blue

Jack goes to college in **Pittsburgh**. Eric painted **his** bedroom blue.

Eric painted his **bedroom** blue.

Eric painted his bedroom blue.

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**.

#### **Phonation Exercises**

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.

My kitten's name is Casey.

My kitten's name is Casey.

Is his kitten's name Casey?

Is your dog's name 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.

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

Does your wife have to work at 8 a.m. on Thursday?

Do you have to swim 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 Thursday?

Phillip's hobby is antique car repair.
Phillip's hobby antique train repair?
Phillip's hobby is antique car repair.
Is Phillip's hobby antique train repair?
Is Phillip's hobby antique car sales?

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

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

I would like a silver bracelet for graduation.

Would you like a silver **ring** for graduation?

Would you like a silver bracelet for your **birthday**?

Eric painted his bedroom blue.

Did Sam paint his bedroom blue?

Did Eric wallpaper his bedroom blue?

Did Eric painted his bedroom blue.

Did Eric paint your bedroom blue?

Did Eric paint his bathroom blue?

Did Eric paint his bathroom blue?

Did Eric paint his bathroom 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

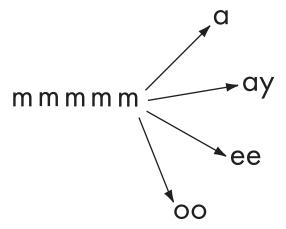
Background: Once the patient is able to hum and maintain forward focus, practice adding a vowel.

**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



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

member	mohawk
memo	moldy
menace	molten
merger	monarch
merit	money
messy	monkey
metric	monster
middle	moody
mighty	moonbeam
million	morning
mindless	mouthpiece
minute	movie
misread	mower
mitten	muscle
mixer	music
mobile	musty
model	myself
	memo menace merger merit messy metric middle mighty million mindless minute misread mitten mixer mobile

Target: resonance/reduce laryngeal focus

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

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

#### **M Phrases & Sentences**

My money

Many moons

Meet my mom.

My Mother Mary

March on Main Street.

Make me a maple malt.

Meet the men at the mine.

Muddy mowers make a mess.

Musicians' mouthpieces make music.

Magnify the marble with a microscope.

Military messengers sent the memos to me.

Mountain climbers are mystified by monumental peaks.

#### **Nasal Intense Sentences**

My name is Nina.

Meet me at noon.

No more nickels and dimes.

Mike needs a hammer and nails.

Mom is mopping the sunroom.

My morning alarm makes music.

Mona makes mango jam in the summer.

Melanie may not need the microphone.

Kim and Mimi make money knitting mittens.

Matthew and Samantha might not come on Monday night.

## **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**

	Wo		<b>Phrases</b>	
phone	spoon	bomb	roam	blue suit
slow	sleuth	taught	woven	whose loot
comb	shoe	boss	loft	soup spoon
stove	loose	blue	trauma	common law
show	soon	suit	lost	lost shoe
loan	truth	choose	slot	zoom zoom
toe	chose	loot	smog	tall Tom
hose	post	food	hot	all talk
soft	roll	zoom	moss	too soon
brought	home	smooth	dot	tow rope
shot	boat	booth	whose	new boat
stop	smoke	moose	mood	bomb squad
pot	mold	snow	hoop	hot stove
blot	poem	blow	doom	go home
pod	drop	rope	goose	slow poke
plot	Tom	load	loop	cold snow
common	rod	coat	tomb	pawn shop
loom	dog	foam	Zeus	long rod
stoop	spot	cough	deuce	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		Phrases		
/ae/	/ee/	/ae/	/ee/	
mast	sneeze	tax man	clean sweep	
sat	seat	bad rash	team meet	
bad	treat	sat back	lean meat	
dash	seize	fat cat	eat wheat	
sap	stream	fast track	please read	
fat	eat	black saddle	sweet treat	
track	please	dad's lap	steam heat	
bat	release	tack back	tree leaf	
practice	clean	vast land	keep neat	
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			

### 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.

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# 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 connectedstaccato: 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 voicebass: 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.

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## 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. Leave me alone.

Good-bye. Who is it?

Good luck. What is your name?

Go home. I need help.

Please. I need an appointment.

Thank you. Wash the dishes.

Hurry up. I need a drink.

See you soon. Pay the bills.

Come back later. Call the doctor.

Happy Birthday. Pass the salt.

Welcome home. I am cold.

How are you? I am fine.

Where are you going? I do not know.

What time is it?

I feel sick.

# **Multisyllabic Words**

university rehabilitation

refrigerator professional

immediately electrician

photography hippopotamus

kindergarten terrifying

cafeteria politically

impossibility ballerina

dictionary humidity

Yugoslavia adolescent

motorcycle misunderstanding

encyclopedia reliability

pediatrician sophistication

medication identification

difficulty transportation