

TEST BANK

THE ALLYN & BACON COMMUNICATION SCIENCES AND DISORDERS SERIES

THE VOICE AND VOICE THERAPY

NINTH EDITION

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Instructor's Resource Manual and Test Bank

for

The Voice and Voice Therapy

Ninth Edition

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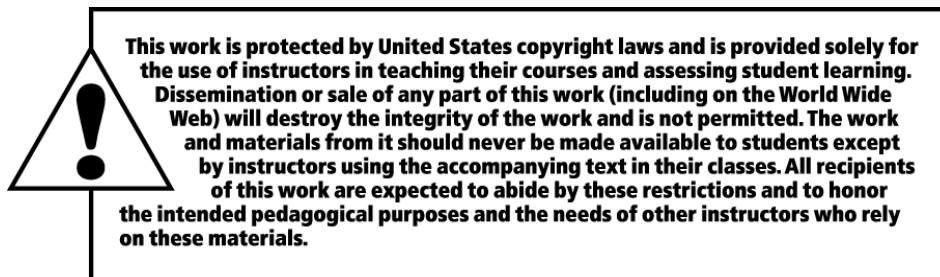
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The Voice and Voice Therapy Table of Contents

Instructor's Resource Manual, Learning Objectives and Classroom Activities

Chapter 1.....	1
Chapter 2.....	3
Chapter 3.....	6
Chapter 4.....	8
Chapter 5.....	10
Chapter 6.....	12
Chapter 7.....	14
Chapter 8.....	16
Chapter 9.....	18
Chapter 10.....	20

Test Bank

Chapter 1.....	22
Chapter 2.....	25
Chapter 3.....	32
Chapter 4.....	38
Chapter 5.....	44
Chapter 6.....	48
Chapter 7.....	52
Chapter 8.....	55
Chapter 9.....	58
Chapter 10.....	62

Answer Key

Chapter 1.....	66
Chapter 2.....	67
Chapter 3.....	72
Chapter 4.....	73
Chapter 5.....	74
Chapter 6.....	75
Chapter 7.....	76
Chapter 8.....	77
Chapter 9.....	78
Chapter 10.....	79

Instructor's Resource Manual: Overview, Learning Objectives and Classroom Activities

Chapter 1: An Introduction to Voice Disorders and their Management

Chapter overview

In this chapter we look at voice and the larynx in the biologic viability of the individual, as a tool in emotional expression, and in its complicated and extensive role in spoken human communication. We review the prevalence of voice disorders in the general population and in specific subpopulations. We see that there appear to be three causal factors in the development and maintenance of voice disorders: functional, organic, and neurogenic. The child or adult with a voice problem is evaluated by the SLP who uses instrumental and non-instrumental approaches for various respiratory and acoustic measures in the attempt to identify causal factors and define aspects of voice production. "Diagnostic probes," the application of trial therapy approaches, are then used to determine the efficacy of a particular therapy technique for improving the patient's voice productions. The patient's self-perception of the handicapping impact of the voice disorder on his or her life is then recorded. If evaluation measures indicate that the patient can profit from therapy, the SLP then provides needed voice therapy. At the conclusion of voice therapy, therapy success is determined by comparing pre- and post-therapy measures, providing needed outcome data.

Learning objectives:

After reading this chapter, the student should be able to:

1. List and describe the biological, emotional and linguistic functions of the larynx.
2. List and describe the kinds of voice disorders.
3. Describe the incidence and prevalence of voice disorders in the general population.
4. Describe the incidence and prevalence of voice disorders in specific populations.
5. Describe the types of intervention for voice disorders.

Classroom activities

1. To appreciate biological action of the larynx, place your index finger gently on your thyroid cartilage and swallow. Note the ascension and forward movement. Now, describe how this movement can interrupt the emotional and linguistic functions of the larynx. Turn to Chapter 7, Voice Facilitating Approaches, and identify three approaches that may lower the larynx for improved voicing and speaking.
2. To appreciate the emotional function of the larynx, select three classmates. Write different emotion states on single slips of paper and place in a cup. Emotional states can be happy, sad, angry, excited, etc. As each student selects a piece of paper, the student speaks a neutral phrase, such as, "I had eggs for breakfast." However, the student speaks the phrase with the emotional overlay as specified on the piece of paper. How many of your peers are able to identify the emotional state just from the changes in your voice and prosodic intent?
3. To develop a solid understanding of incidence and prevalence, turn to Chapter 4, Organic Voice Disorders, or Chapter 5, Neurogenic Voice Disorders. Select a pathology, and then look up the pathology's incidence and prevalence on a peer-reviewed website. One example of a peer reviewed website is PubMed. Investigate and then share your findings with your peers in class.
4. Provide three reasons why you think that the majority of children who require voice intervention in the schools are not receiving it. You may need to look in other chapters to complete this question.
5. Review the chapter section on voice disorders in teacher and student teachers. Then investigate Elimination of Abuses in Chapter 7. Generate an "Elimination of vocal abuses" chart that can be distributed to teachers and student teachers. Compare your chart with those generated by your peers. How are they the same? Different?

Page keys to Classroom activities

- | | |
|--------------------------------|-------------------------|
| 1. Page 2 and Chapter 7 | 4. Page 7 and Chapter 8 |
| 2. Page 3 | 5. Page 8 and chapter 7 |
| 3. Page 5 and Chapters 4 and 5 | |

Chapter 2: Normal Voice Anatomy and Physiology Throughout The Lifespan

Chapter overview

In this chapter we learn about the respiratory, phonatory, and resonance aspects of voice, and discuss the five aspects of voice (loudness, hygiene, pleasantness, flexibility, and representation). We find that the outgoing airstream is the primary driving force of voice. A description of the physiology of respiration introduces the structures and mechanisms of normal breathing for speech. The efficient user of voice develops good expiratory control. The value and magnitude of respiratory volumes are discussed. A description of the physiology of phonation outlines the structures and mechanisms of normal phonation, including frequency, intensity, and quality shaping mechanisms. Supraglottal structures and functions specific to quality and resonance are discussed. The entire vocal tract contributes to the amplification and filtering of the fundamental frequency into the final unique voice of any speaker. The understanding of these processes provides the underpinning for effective voice therapy for patients with dysphonia.

Learning objectives

After reading this chapter, the students should be able to:

1. List and define the five aspects of the normal voice.
2. List and describe the three processes of normal voice production.
3. Identify the structures of respiration.

4. Describe the mechanics of respiration.
5. List and describe the lung volumes and capacities in reference to resting expiratory level.
6. Understand the differences between breathing for life and breathing for speech.
7. Describe the effects of aging on the respiratory system and speech breathing.
8. Identify the structures of phonation.
9. Describe the effects of aging on the laryngeal system.
10. Understand the myoelastic aerodynamic theory of vocal fold vibration.
11. Describe the factors involved in changing vocal pitch, loudness, and quality.
12. Identify the structures of resonance.
13. Describe the mechanics of resonance.

Classroom activities

1. Select four classmates so that you equal five. Sit at a round table so each student is equidistant from a digital recorder in the middle of the table. Turn on the recorder and have a brief conversation so that all voices are recorded. Now, play back the conversation and identify each of the five aspects of voice. Are they interrelated? Does anyone have more of one aspect or attribute than another student? Discuss.
2. Deconstruct the term myoelastic-aerodynamic theory of phonation using a balloon. Blow up the balloon and note that the body of the balloon represents the lungs and the valve the vocal folds. Now, release the air by stretching the valve tight. What is the sound quality like? High or low? As you release the air, describe the dynamics that create the vibration. Now, reduce the stretch by about 50%. Under which condition is more air exiting the “vocal folds?” What happens to the vibrational quality? Does it increase or decrease? Blow up the balloon again and simply release the valve. Note the non-periodic release of air. What type of laryngeal pathology might mimic this uncontrolled release of “subglottal” pressure?
3. Now, let’s look at the difference between quiet breathing and breathing for speech. This exercise is more meaningful if you use yourself or a classmate. First, sit quietly and count the number of breaths that you take for 1 minute. It should be within the range of 17 to 22 breaths per minute and the inhalation and exhalation phases should be about equal. Look up Figure 2.2 and identify the muscles that are primarily responsible for quiet breathing.

Now, orally read a four-paragraph passage. Make note of whether you take in air through your nose or your mouth. How is this different from quiet breathing? Are the inhalation and exhalation periods the same or different? Name the main muscles involved in breathing for speech.

4. Go outside and find a garden hose. Turn the water on at its source, but only one turn. Try to direct the water out several feet. What happens? Now, put your thumb over the end of the hose and describe what happens. Now, turn the water up at its source and describe what happens. If this hose is analogous to voice production whereby the end of the hose is the larynx and the source of the voice is the lungs, how would you counsel a voice client with vocal hyperfunction?
5. What factors determine fundamental frequency? Look around your house or apartment and try to find items that can easily represent vocal folds. Past students have constructed vocal fold configurations from empty tuna cans and rubber bands of varying widths, densities and lengths to represent men’s, women’s and children’s vocal folds. Construct, and then ask your classmates determine which set of vocal folds represents each fundamental frequency.

Page keys to Classroom activities

1. Page 19
2. Page 51
3. Pages 27-30
4. Page 29
5. Pages 53-54

Instructor's Resource Manual: Overview, Learning Objectives and Classroom Activities

Chapter 3: Functional Voice Disorders

Chapter overview

This chapter introduces functional voice disorders - those that have no organic or neurological cause. We describe voice disorders that result from excessive muscle tension, and the benign laryngeal pathology that may develop. We also describe voice disorders with a psycho-emotional basis or overlay. Numerous case studies are introduced that support the value of Voice Facilitating Approaches in treating most functional and psychogenic voice disorders.

Learning objectives

After reading this chapter, one should be able to:

1. Define the term functional voice disorders
2. Define the term psychogenic voice disorders
3. Describe the benign pathologies which may result from excessive laryngeal tension.
4. Describe the voice symptoms of muscle tension dysphonia (MTD).
5. Describe the treatment options for MTD.

Classroom activities

1. Draw the vocal folds and the ventricular folds. Now, illustrate how the ventricular folds might move toward the midline during voicing. Do the ventricular folds impinge on the true vocal folds? What type of vocal quality would you expect from this physiological action? Purchase or borrow an inexpensive tambourine. Tap it and note the frequency of vibration. Now place a wad of play dough on the tambourine's surface and tap again. How can this altered frequency be compared with ventricular phonation?
2. Draw the vocal folds in an adducted and abducted position. Now add vocal nodules. Note the hourglass configuration of the glottis during adduction. Do you think this would result in longer or shorter phrase lengths? Explain.
3. Draw the vocal folds and illustrate a sessile versus a pedunculated polyp. Why is it a good idea to consider voice therapy before surgical approaches to specific types of polyps? Read Chapter 7, and list three approaches that might be facilitative in reducing or eliminating a sessile polyp.
4. List three changes that may occur to the surface mucosa during a shouting event.
5. Describe three different voice quality behaviors that you would expect to be abnormal for an individual with Reinke's edema. Sketch a cross section of the vocal fold and illustrate how the thick, gelatinous fluid like material may interfere with the actions of the lamina propria.

Page keys to Classroom activities

1. Pages 67-68
2. Pages 69-70
3. Pages 72-73
4. Page 74
5. Page 73

The Voice and Voice Therapy Test Bank

Chapter 1: An Introduction to Voice Disorders and their Management

True/false

1. The primary function of the larynx is to produce voice.
2. The most vertical of the three laryngeal valves are the aryepiglottic folds.
3. The resonance of the voice begins at the oropharynx.
4. The sound of the voice often mirrors one's internal emotional state.
5. The patient's voice in the clinic is essentially the same voice he or she produces in daily activities.
6. Whispering is as effective as voice for communicating prosodic intent.
7. There are numerous incidence and prevalence studies on voice disorders for the general U.S. population.
8. Vocal nodules rarely interrupt the ability to produce suprasegmentals.
9. Adults over the age of 70 are more likely than younger adults to experience a dysphonia.
10. The majority of teachers who experience dysphonia seek help.
11. Teachers who experience dysphonia are more likely to miss work days as compared with non-teachers.
12. There are numerous approaches to etiologic classifications of voice disorders.
13. Muscle tension dysphonia is the most common voice disorder seen in children and adults.
14. Quiet voice as a therapeutic technique is also known as "confidential voice."
15. It is common for the SLP to be the first professional to identify a dysphonia.
16. The greatest risk factor for a voice teacher to develop a dysphonia is being between 25-30 years old.
17. Vocal nodules are considered to be a product of a functional voice disorder.
18. Psychogenic voice disorders rarely affect individuals in their vocational endeavors.
19. Voice and resonance changes from a stroke would be classified under neurogenic voice disorders.
20. Most cases of puberphonia are resolved within one to two voice therapy visits.

Multiple choice

1. The larynx is located
 - a. in the subglottis
 - b. at the top of the airway
 - c. posterior to the upper esophageal sphincter
 - d. superior to the hypopharynx

2. In fear situations, the larynx normally
 - a. rises
 - b. descends
 - c. engages in sphincteric opening
 - d. relaxes

3. During quiet breathing, the vocal folds
 - a. adduct slightly for inspiration and abduct slightly for expiration
 - b. vigorously adduct for inspiration and vigorously abduct for expiration
 - c. abduct slightly for inspiration and adduct slightly for expiration
 - d. vigorously abduct for inspiration and vigorously adduct for expiration

4. Studies suggest that otolaryngologists' most common approach to treating dysphonias is
 - a. referral to SLPs
 - b. surgery
 - c. antibiotics
 - d. anti-reflux medications

5. The majority of children with dyphonias
 - a. grow out of it
 - b. are identified and treated
 - c. are in preschool
 - d. are at risk for negative academic achievement

6. Teachers are occupational voice users at risk for dysphonias due to
 - a. high vocal loads
 - b. physical factors
 - c. psycho-emotional factors
 - d. all the above

7. Primary functional voice disorders
 - a. show neurogenic symptoms upon examination
 - b. are rarely associated with vocal fatigue
 - c. reveal vocal hoarseness after prolonged voice use
 - d. are easy to eliminate without skilled intervention

8. Psychogenic voice disorders can be manifested in
 - a. dysphonia
 - b. pitch changes
 - c. aphonia
 - d. all the above

9. An example of an organic voice disorder is
 - a. unilateral vocal fold paralysis
 - b. vocal nodules
 - c. vocal fold cyst
 - d. falsetto

10. Depending on the classification of voice disorder, the SLP will work closely with
 - a. the otolaryngologist
 - b. a professional from the National Association of Teachers of Singing
 - c. a professional from the Voice and Speech Trainers Association
 - d. all the above

Test Bank
Chapter 2: Normal Voice
Anatomy and Physiology Throughout The Lifespan

True/false

1. The Atlas and Axis vertebrae allow for diverse head movement.
2. The ribs connected to the thoracic column play a small role in respiration.
3. The primary muscles of inspiration are the diaphragm and the external intercostal muscles.
4. Much of the power of exhalation is supplied by passive forces of respiration.
5. The time ratios for inhalation and exhalation are nearly equal for quiet breathing.
6. The lateral cricoarytenoid is the lone abductor muscle.
7. Respiratory volumes and capacities are almost the same for men and women.
8. The recurrent laryngeal nerves innervate all of the muscles of the larynx.
9. The pediatric larynx is situated lower in the neck than that of an adult.
10. Presbyphonia refers to the vocal attributes of the young child.
11. The myoelastic-aerodynamic theory of phonation is not dependent on a continuous supply of subglottal air pressure.
12. Hard glottal attack is a healthy way of initiating vocal onset.
13. The vocal folds are vibrating for the phoneme /s/.
14. The register that most people use for conversational speech is called “modal.”
15. Falsetto normally employs longer open than closed periods of time across vibratory phases.
16. As vocal intensity increases, the vocal folds stay open for longer periods of time for each vibratory cycle.
17. The tongue is the most mobile articulator.
18. An individual with a high tongue carriage will most likely interrupt the flow of resonance through the oral cavity.
19. Older men demonstrate larger lung volume excursions than younger men.
20. For the phoneme /g/ in “get,” the velum is closed.

Multiple choice

1. The largest of the vertebrae are the
 - a. cervical
 - b. thoracic
 - c. lumbar
 - d. coccyx

2. The bifurcation of the trachea at the level of the fifth thoracic vertebra is known as the
 - a. pleural membrane
 - b. alveoli
 - c. carina
 - d. plural duct

3. When the thorax enlarges, the
 - a. lungs contract and exhalation begins
 - b. lungs enlarge and exhalation begins
 - c. lungs contract and inhalation begins
 - d. lungs enlarge and inhalation begins

4. Most voice disordered patients who report that they run out of air when speaking would benefit from
 - a. respiratory training exercises
 - b. speaking at high lung volumes
 - c. focusing on taking breaths at appropriate places in a phrase
 - d. speaking at low lung volumes

5. The reduced ability of the larynx to be palpated from side to side may be indicative of
 - a. degenerative changes
 - b. the presence of a mass
 - c. muscle tension dysphonia
 - d. all the above

6. Contraction of the interarytenoid muscles serve to
 - a. draw the arytenoids together
 - b. decrease the distance between the cricoid and thyroid cartilages
 - c. tilt the thyroid cartilage superiorly
 - d. pull the arytenoids apart

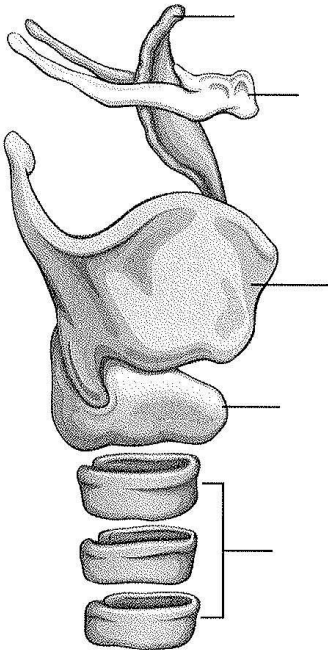
7. The true vocal folds are lubricated by
 - a. sacs found in the ventricles
 - b. glands found on the ventricular folds
 - c. the rima glottis
 - d. a and b

8. The mucosal wave
 - a. is comprised of the intermediate layer of the lamina propria
 - b. may be interrupted due to a space occupying lesion or edema
 - c. can be seen by the naked eye
 - d. is adhered tightly to the vocal ligament

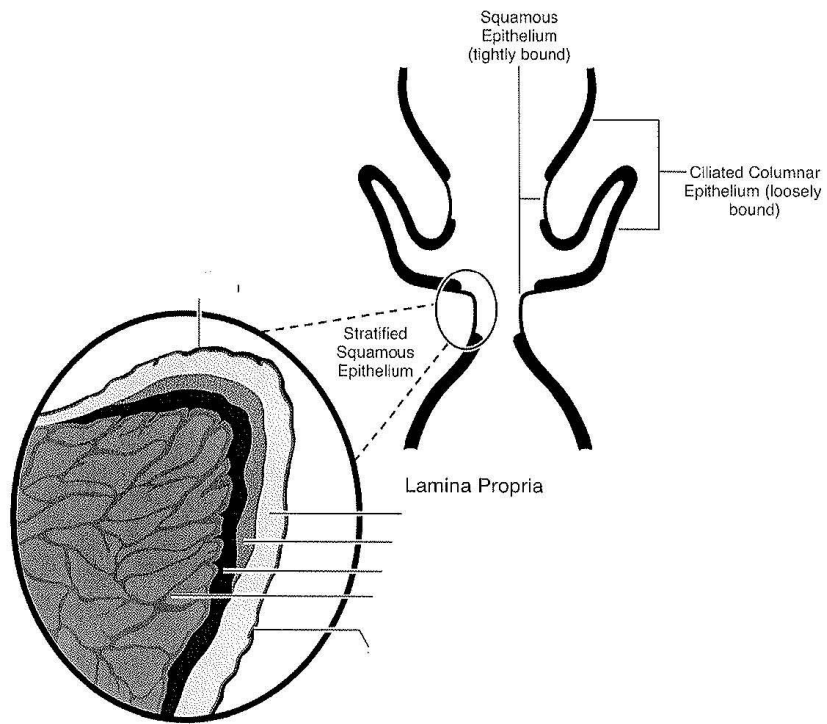
9. When vocal folds lengthen, pitch normally _____ due to contraction of the _____ muscles.
 - a. increases, cricothyroid
 - b. decreases, thyromuscularis
 - c. remains the same, thyroarytenoid
 - d. increases, interarytenoid

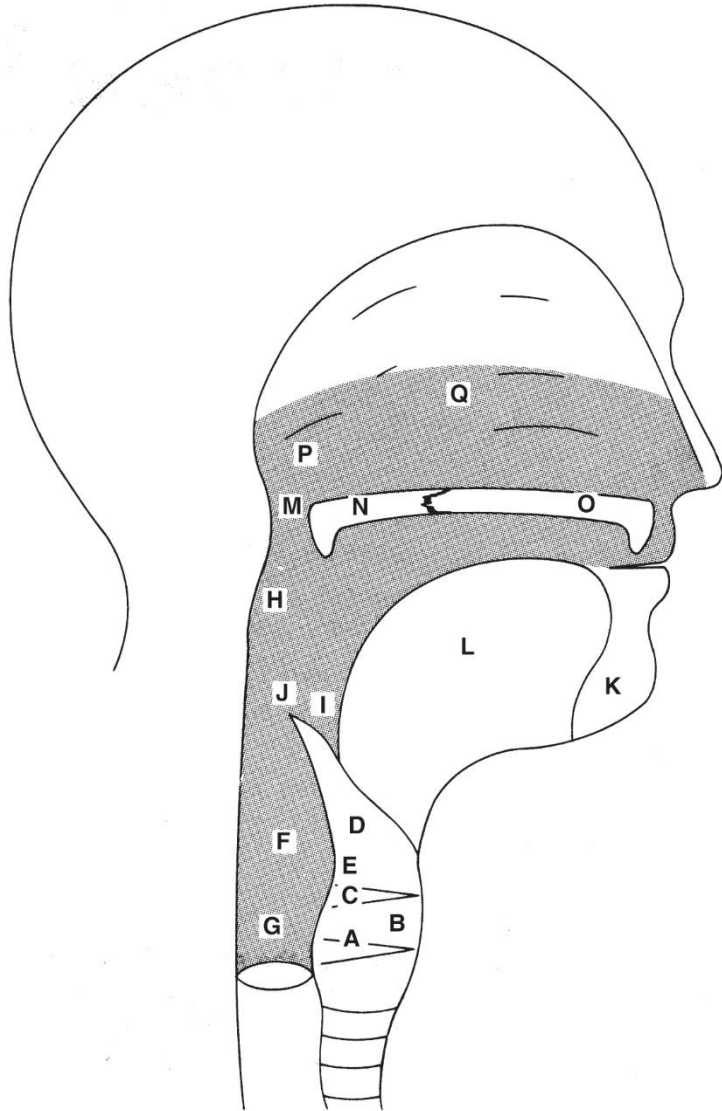
10. The movement and positioning of the velum changes the size and shape of
 - a. the pharynx
 - b. the oral cavity
 - c. the nasal cavity
 - d. all the above

Label the structures of the larynx on the lateral view

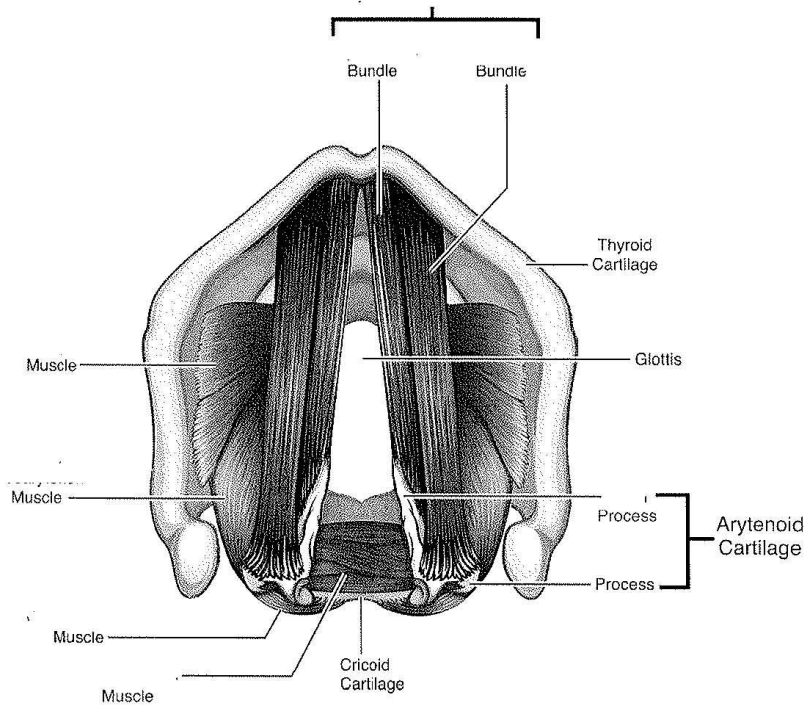


Label the five layers of the vocal folds





Label the muscles of the larynx



The Voice and Voice Therapy
Key to Chapter 1 Test Bank questions

True/false

1. F
2. T
3. F
4. T
5. F
6. F
7. F
8. F
9. T
10. F
11. T
12. T
13. T
14. T
15. T
16. F
17. T
18. F
19. T
20. T

Multiple choice

1. B
2. A
3. C
4. D
5. D
6. D
7. C
8. D
9. C
10. D

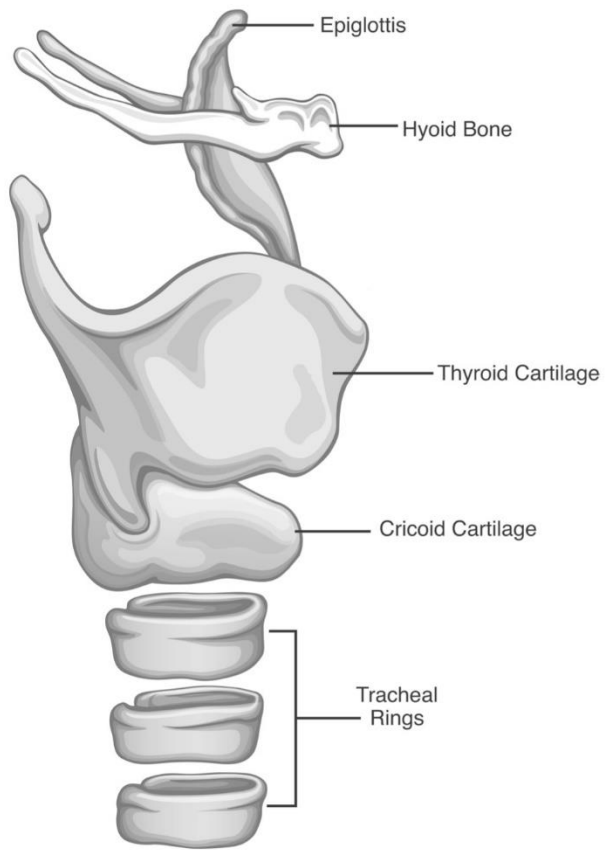
Key to Chapter 2 Test Bank questions

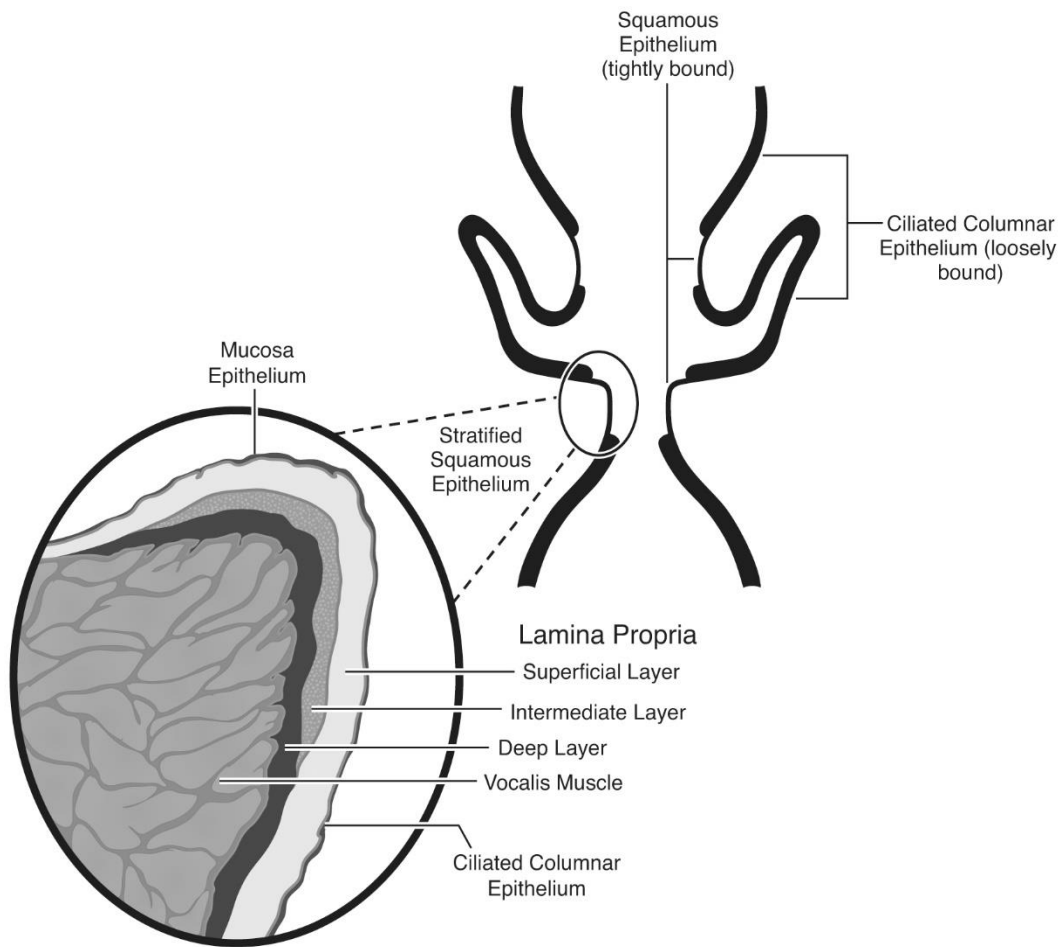
True/false

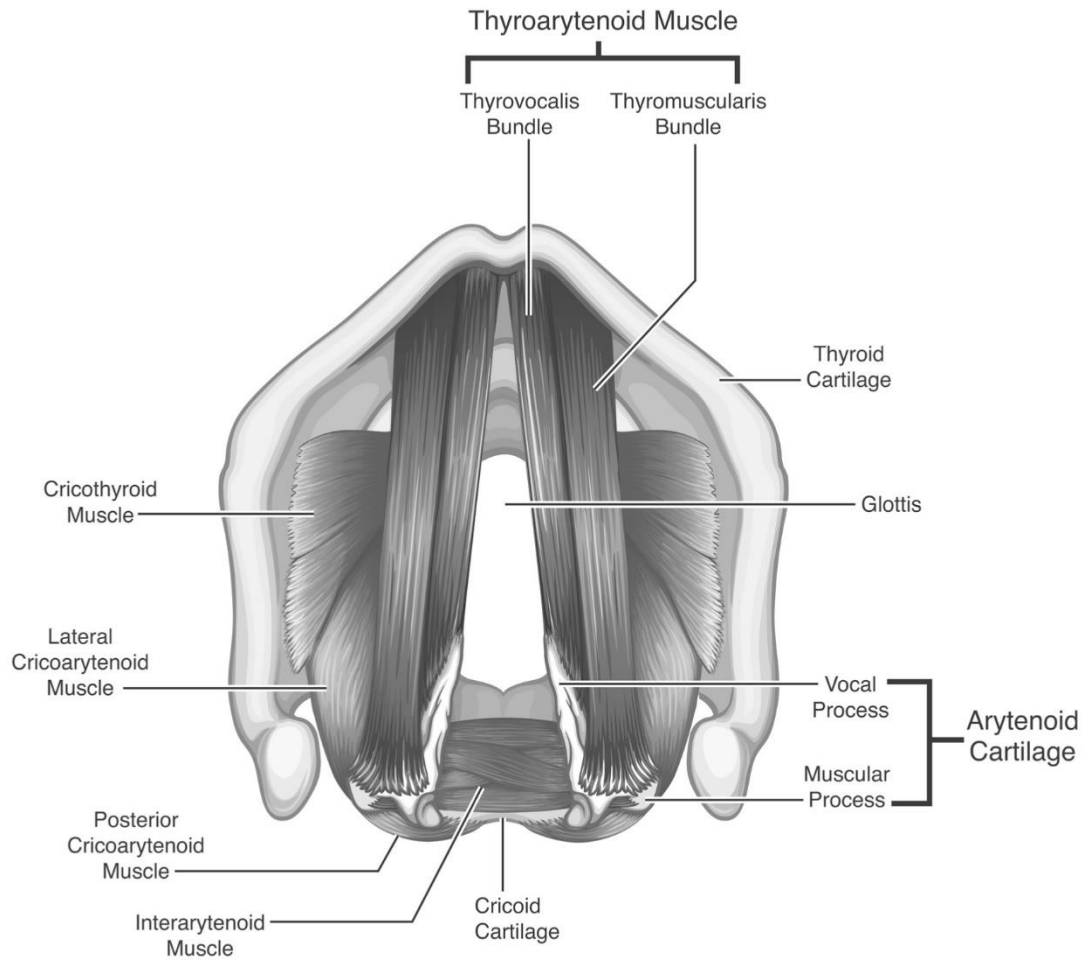
1. T
2. F
3. T
4. T
5. T
6. F
7. F
8. F
9. F
10. F
11. F
12. F
13. F
14. T
15. T
16. F
17. T
18. T
19. T
20. T

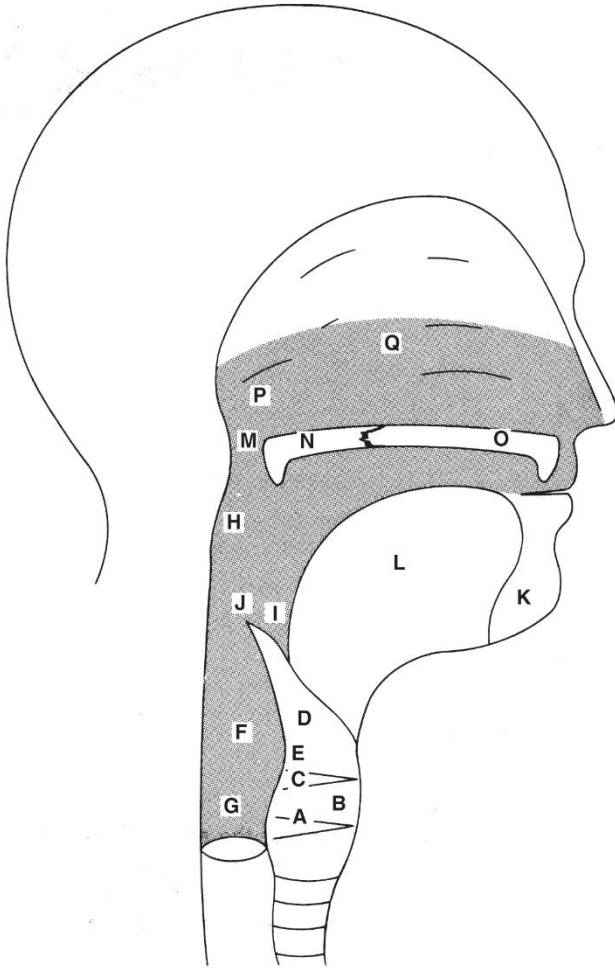
Multiple choice

1. C
2. C
3. D
4. C
5. D
6. A
7. D
8. B
9. A
10. D









- A. True vocal folds
- B. Ventricular space
- C. Ventricular folds
- D. Epiglottis
- E. Aryepiglottic folds
- F. Hypopharynx
- G. Inferior pharyngeal constrictors and upper esophageal sphincter
- H. Middle pharyngeal constrictors
- I. Valleculae
- J. Oropharynx
- K. Mandible
- L. Tongue
- M. Passavant's pad
- N. Soft palate
- O. Hard palate
- P. Nasopharynx
- Q. Nasal cavity

