

Objective 1:

The student will understand the purpose of this training, the basic physiology of respiration and voice production, and the effect of laryngeal tension on voice quality.

Exercise 1:

Note to Student:

Please read this information. It will explain why you are receiving speech therapy and what we will be doing in the class. After we discuss what you read, you will answer some True-False questions about it. Tell me if you think the sentence is true or false. If it is false, tell me why.

Note to Therapist:

After student reads the information, discuss any difficult concepts. (If you think the student may have difficulty understanding the material, discuss each concept as he reads about it instead of waiting until the end.) Visual aids such as pictures, diagrams, or a model larynx should be used for clarification.

Criterion:

The student will demonstrate comprehension of respiration, voice production, and the effect of laryngeal tension on voice by answering 80% of the questions correctly.

Note to Student:

This paper explains how people produce voice. You should understand the correct way to produce voice. Knowing this will help you understand what you are doing wrong. It will also help you learn to produce voice correctly.

The human voice comes from the voice box (larynx). It is located in the middle of your neck. Inside the voice box are the vocal folds. The vocal folds are two bands of muscles. They are arranged like a set of swinging doors. They may be open or closed.

When you are not using your voice, your vocal folds are open. Air can pass through the opening. The air does not move the vocal folds. When you are breathing your vocal folds are open. Air flows into the lungs during inhalation. Air flows out from the lungs during exhalation. Your vocal folds remain apart as the air goes in and out.

Your vocal folds do not remain open when you speak. When you breathe in (inhale) before speaking, your vocal folds are apart. When you breathe out (exhale) to speak, your vocal folds close. Speech is only produced when you breathe out (exhale). Your vocal folds do not control breathing. Breathing, or inhaling and exhaling, is controlled by muscles of the chest and abdomen. When you inhale, your lungs expand and fill with air. When you exhale, your lungs push out the air. You can take in air and release air without producing sound. If you want to produce sound, you must close your vocal folds when your lungs push out the air.

If your vocal folds are closed, the air leaving your lungs is stopped. Your vocal folds have closed the opening. The air can't pass through it. The air pushes against the folds, trying to get out. The pressure against the folds increases. When it is strong enough, it blows the vocal folds apart. Air then escapes through the opening. This reduces the pressure on the vocal folds. They snap closed. When the pressure builds up again, the vocal folds fly open. When the pressure is reduced, the folds snap together. Remember, the air pressure causes your vocal folds to open and close. This opening and closing occurs very rapidly. The vocal folds move so rapidly that they vibrate, producing sound. You can feel the vibration by placing your hand over your larynx when you use your voice. The sound made by the vibration of your vocal folds is called voice.

Remember, air pressure makes your voice folds vibrate. You can control the vibration by controlling the release of air from your lungs. Air is necessary for vibration. If you do not have air pushing against your vocal folds, you cannot produce voice. The air comes from your lungs. It is being forced out or exhaled.

You can control how much air you inhale and exhale. You can also control how quickly you inhale and exhale. When you breathe normally, without talking, inhalation and exhalation take about the same length of time. When you breathe for speech, you change the timing. You inhale very quickly and exhale very slowly. You control this slow exhalation of air. This air travels through your larynx and makes your vocal folds vibrate.

If you exhale the right amount of air and keep your larynx relaxed, you will produce a good voice. If you do not release enough air, your vocal folds will not vibrate properly. Your voice may sound tense. If you do not keep your larynx relaxed, your vocal folds cannot vibrate freely. Your voice may sound tense.

If you want to reduce vocal tension, you must learn to:

1. Control the release of air from your lungs, and
2. Relax your neck and laryngeal muscles when you speak.

Exercise 1

Name

Date

True-False Questions

Circle T if the sentence is true. Circle F if the sentence is false.

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|---|---|---|
| T | F | 1. Your vocal folds are located behind your tongue. |
| T | F | 2. Your vocal folds are closed when you breathe. |
| T | F | 3. Your vocal folds remain open when you speak. |
| T | F | 4. You talk when your lungs are pushing air out (exhalation). |
| T | F | 5. Tightening your muscles makes your vocal folds vibrate. |
| T | F | 6. You can feel vocal fold vibration. |
| T | F | 7. You cannot control the release of air from your lungs. |
| T | F | 8. Breathing for speech differs from normal breathing. |
| T | F | 9. Tension interferes with normal vocal fold vibration. |
| T | F | 10. Tension can be reduced. |