

# Disorders of Voice: What Can Go Wrong

Voice disorders in children may be related to a variety of etiologies. Understanding the causes of voice disorders will help you do a better job collecting case history information, determining a prognosis, and planning treatment.

There are different classification systems to organize the way we think about voice disorders. Aronson (1990) divided disorders into functional and organic. Boone et al. (2005) described the problem with a functional vs. organic division (one used by Boone in earlier editions), indicating the terms may be too broad to adequately describe voice problems. They revised their classification system to a three-way system: functional, neurological, and organic. Stemple et al. (2000) described common etiologic factors such as vocal misuse, medically-related etiologies, primary disorder etiologies, and personality-related etiologies. In this chapter, we'll describe disorders of voice in three ways:

1. Voice abuse/misuse (e.g., shouting, hyperfunctional use of the mechanism) and consequences of vocal abuse (e.g., vocal nodules)
2. Medically-related causes of voice problems (e.g., upper respiratory infections, gastroesophageal reflux disease [GERD])
3. Congenital medical disorders with related voice problems (e.g., cleft palate, cerebral palsy)

## 1. Disorders Related to Vocal Abuse and Misuse

### Vocal abuse

Vocal abuse occurs when the vocal folds are forcibly brought together. Wilson (1979) distinguished between vocal abuse and misuse and defined *abuse* as sudden straining of the voice or chronic use of harmful voice practices. If this chronic, harmful use continues over time, physical changes to the vocal mechanism can result. These changes might include swelling, strain, thickening, and even growths on the vocal folds.

Children engage in many vocal behaviors that would be considered abusive. These include:

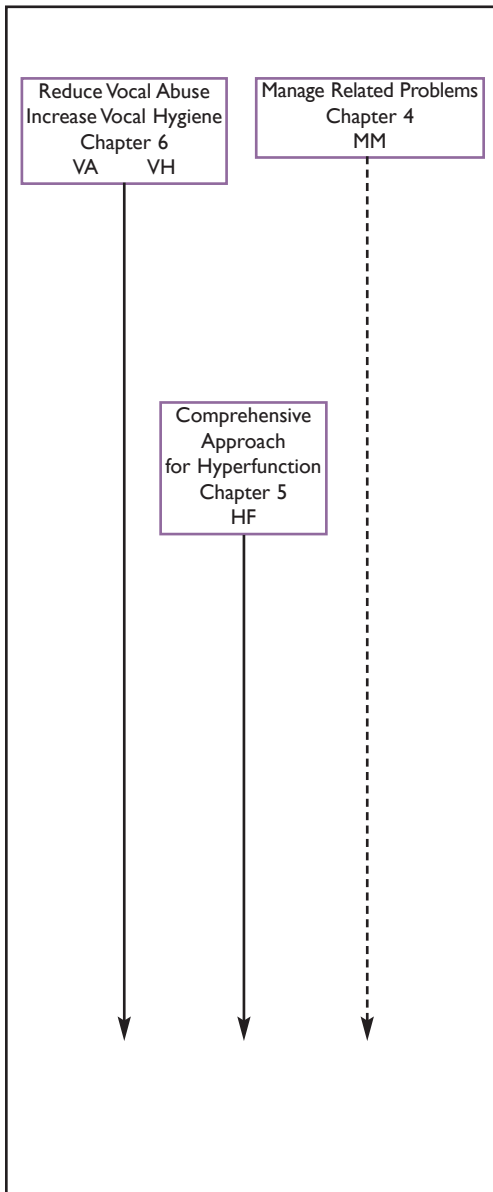
- shouting
- screaming
- talking too loudly
- making loud or tense noises (e.g., car sounds)
- coughing
- throat clearing

Coughing may be occurring because the child has a medical problem (e.g., upper respiratory infection, asthma, cold). It is also a symptom of GERD. If the cough is related to a medical problem, the child should be receiving treatment from a physician. However, sometimes a cough has become an habitual behavior after the

# Sample Treatment Sequences for Vocal Problems\*

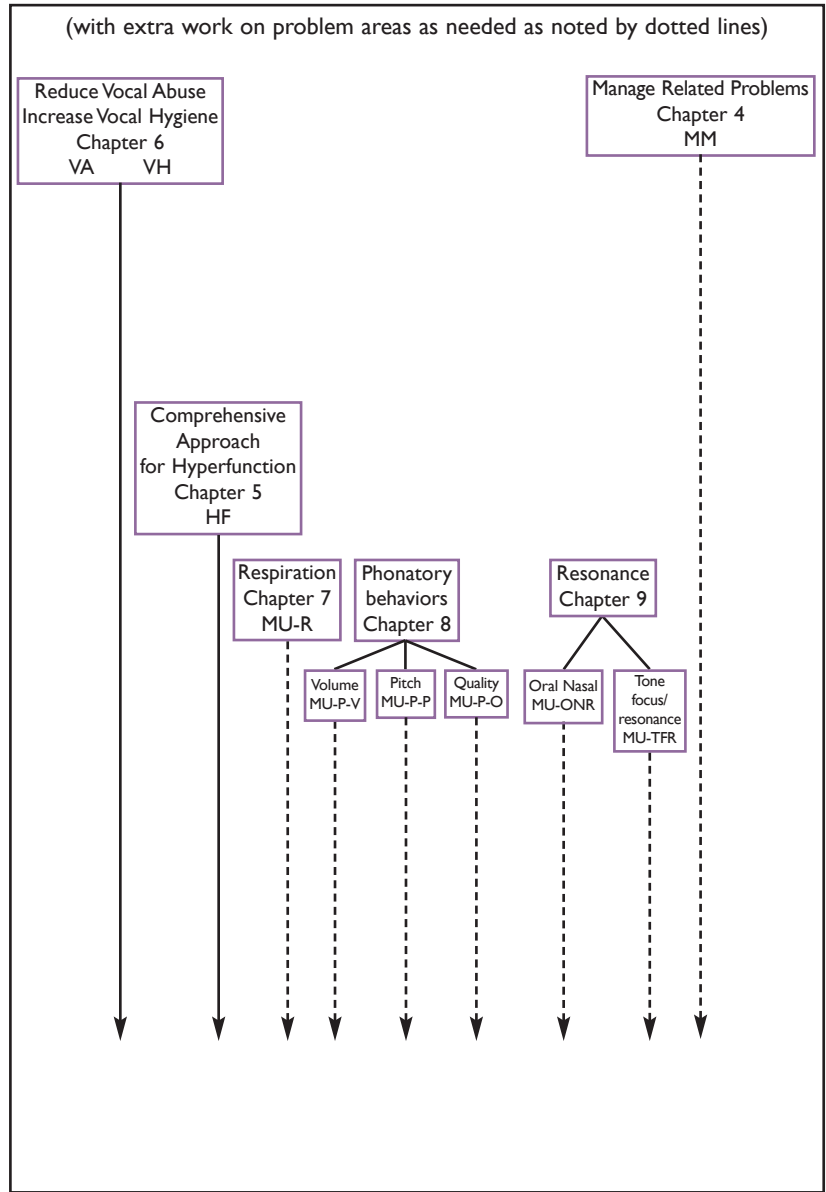
**A**

Vocal Abuse with Hyperfunction



**B**

Vocal Abuse with Hyperfunction



\* If there are accompanying medical problems, management is essential and thus is included in each sample treatment sequence.

## Ways to Elicit List Responses

Who lives in a zoo?  
What kinds of animals live on a farm?  
What is in a closet?  
What can be found in a shopping center?  
What can you buy at a bakery?  
What can you buy at a drugstore?  
What are popular desserts?  
What do you like to watch on TV?  
If we were creating a new classroom, what things would we need to put in it?  
If you were creating a new playground, what things would you want to put in it?

Name animals that live in the ocean.  
Name different flavors of ice cream.  
Name different sports played in the Olympics.  
Name different streets in your neighborhood.  
Name some Presidents of the United States.  
Name some things you can grow in a garden.  
Name the colors in the rainbow.  
Name the other students in your class.  
Name ways you can travel.  
Name different kinds of birds.

Tell me all the things you need to pack in a suitcase for a long trip.  
Tell me all the things you can think of that can go on a pizza.  
Tell me some costumes children wear on Halloween.  
Tell me some things I could find in your refrigerator.  
Tell me some things I could find in your cubby/desk.  
Tell me the names of people in your family.  
Tell me what you like about school.  
Tell me some of your favorite toys.  
Tell me some things a teacher has on his/her desk.  
Tell me some things a coach would have in his/her office.

## Important Tips to Remember During Physical Activity

Name \_\_\_\_\_

Date \_\_\_\_\_

### **Use your techniques all the time.**

The best thing to do is use your breathing techniques for all physical activities.

- during practice
- games
- gym class
- running
- climbing steps

### **If you feel an attack coming on:**

As soon as you feel any tightness whatsoever, immediately begin your techniques:

First blow out through your mouth slowly, then take two sniffs in through the nose or open throat breathing to the count of two.

### **If you feel like your breathing is not relaxing:**

Slow your pace a little bit (come to the sidelines, drop back). If you do have to come out of the game or stop your physical activity, be sure to do a cool down. This means that you should slow down (e.g., slower run, quick walk). This is a good time to do shoulder shrugs or shoulder rolls to reduce tension in that area. Remember to keep breathing according to the pattern. Continue until you feel that your breathing is easy and relaxed.