

# Plain Language Summary: Hoarseness (Dysphonia)

Helene J. Krouse, PhD, RN<sup>1</sup>, Charles (Charlie) W. Reavis<sup>2</sup>,  
Robert J. Stachler, MD<sup>3,4</sup>, David O. Francis, MD, MS<sup>5</sup>,  
and Sarah O'Connor<sup>6</sup>

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## Abstract

This plain language summary for patients serves as an overview in explaining hoarseness (dysphonia). The summary applies to patients in all age groups and is based on the 2018 “Clinical Practice Guideline: Hoarseness (Dysphonia) (Update).” The evidence-based guideline includes research to support more effective identification and management of patients with hoarseness (dysphonia). The primary purpose of the guideline is to improve the quality of care for patients with hoarseness (dysphonia) based on current best evidence.

## Keywords

dysphonia, hoarseness, voice change, voice disturbance, voice disorders, laryngitis, voice, guidelines

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## How Was This Summary Developed?

This plain language summary is based on the American Academy of Otolaryngology—Head and Neck Surgery Foundation’s (AAO-HNSF’s) “Clinical Practice Guideline: Hoarseness (Dysphonia) (Update).”<sup>1</sup> The purpose of the summary is to share key concepts and recommendations from the guideline in clear, understandable, patient-friendly language. It was developed by consumers, clinicians, and AAO-HNSF staff.

The hoarseness guideline was developed using the methods outlined in the AAO-HNSF “Guideline Development Manual, Third Edition.”<sup>2</sup> A literature search from December 2015 through April 2016 was performed by an information specialist to identify research studies (systematic reviews, clinical practice guidelines, randomized controlled trials, and comparative studies).

The AAO-HNSF formed a guideline development group representing the disciplines of advanced practice nursing, bronchoesophagology, consumers, family medicine, geriatric medicine, internal medicine, laryngology, neurology, otolaryngology—head and neck surgery, pediatrics, professional voice teachers,

pulmonology, and speech-language pathology. The group also included a staff member from the AAO-HNSF. Prior to publication, the guideline underwent extensive peer review, including open public comment.

## What Is Hoarseness (Dysphonia)?

Dysphonia (pronounced “diss-foh-nee-uh”), or impaired voice production, is sometimes called “hoarseness.” Dysphonia describes your impaired voice production. Hoarseness is a *symptom* of a change in your voice quality. Health care providers will use the clinical term *dysphonia*, but patients and the public use the more common term *hoarseness*.

Dysphonia is very common. It affects nearly one-third of the population at some point in their lives.<sup>3–5</sup> Dysphonia is characterized by a change in voice quality, pitch (how high or low the voice is), volume (loudness), or vocal effort that makes it difficult to communicate as judged by a health care provider, and it may affect your quality of life.<sup>1,6</sup>

The symptom of hoarseness is related to problems in the sound-producing parts (vocal cords or folds) of the voice box or larynx (pronounced “LAIR inks”).<sup>7</sup> Your voice may have a raspy, weak, or airy quality that makes it hard for you to make smooth vocal sounds.<sup>8</sup>

## What Causes Hoarseness (Dysphonia)?

Dysphonia is a symptom common to many diseases. Most dysphonia (hoarseness) is related to upper respiratory tract infection and goes away on its own in 7 to 10 days.<sup>1</sup> See your health care provider if your hoarseness does not go away or get better in 4 weeks. You may have a serious medical condition that requires further evaluation by an

<sup>1</sup>University of Texas Rio Grande Valley, Edinburg, Texas, USA

<sup>2</sup>National Spasmodic Dysphonia Association, Itasca, Illinois, USA

<sup>3</sup>Stachler ENT, West Bloomfield, Michigan, USA

<sup>4</sup>Wayne State University, Detroit, Michigan, USA

<sup>5</sup>University of Wisconsin, Madison, Wisconsin, USA

<sup>6</sup>American Academy of Otolaryngology—Head and Neck Surgery, Alexandria, Virginia, USA

## Corresponding Author:

Robert J. Stachler, MD, Stachler ENT, 33200 W 14 Mile Rd, Suite 240, West Bloomfield, MI 48322, USA.

Email: [robstachler@comcast.net](mailto:robstachler@comcast.net)

otolaryngologist (pronounced “oh-toe-lair-in-GOLL-oh-jist”). An otolaryngologist is often called an ear, nose, and throat doctor, or ENT for short.<sup>9</sup>

Some causes of hoarseness:

- Common cold, upper respiratory tract infection
- Voice overuse (using your voice too much, too loudly, or for a long period of time)
- Acid reflux
- Allergic laryngitis (pronounced “lair-in-JYE-tis”), which is inflammation of the larynx due to allergies
- Smoking and secondhand smoke
- Head and neck cancer
- Medication side effects
- Age-related changes
- Neurological conditions (examples: Parkinson’s disease, amyotrophic lateral sclerosis)
- Intubation (process of inserting a tube through the mouth and into the airway) and postsurgical injury

### Who Is at Risk?

Dysphonia affects patients of all ages and sexes but is more common in people who use their voice in their work. Singers, teachers, and call-center operators are some examples. Boys in the 8- to 14-year age range, adults over the age of 65 years, and people who smoke are also more likely to develop dysphonia.

### When Should I See a Health Care Provider about My Hoarseness?

- Your hoarseness does not go away or get better in 7 to 10 days, especially if you smoke
- You do not have a cold or flu
- You are coughing up blood
- You have difficulty swallowing
- You feel a lump in your neck
- You observe loss or severe changes in your voice that lasts longer than a few days
- You experience pain when speaking or swallowing
- Your voice change comes with uneasy breathing
- Your hoarseness makes your work hard to do
- You are a vocal performer (singer, teacher, public speaker) and cannot do your job

### How Is Hoarseness Diagnosed?

Your health care provider will complete a physical examination and ask about your medical history. The provider may ask how long you have had the dysphonia, if you have other symptoms (fever, fatigue), how the dysphonia is affecting your life, medications you are currently taking, and lifestyle questions (alcohol use, smoking). If your hoarseness persists (does not go away) after 4 weeks or has no clear cause, you should be evaluated by an otolaryngologist. Otolaryngologists

who specialize in voice disorders are called laryngologists (pronounced “lair-in-GOLL-oh-jists”).

The physical exam should include a full head and neck examination. Your provider may feel your neck for any lumps or other problem signs. He or she may examine your voice box and nearby tissue with a mirror or laryngoscope (a small lighted instrument that bends when placed in the back of your throat).<sup>7</sup> Your provider will listen to your voice to evaluate your voice quality. Depending on your symptoms, your health care provider may order additional tests such as a biopsy, computed tomography (CT) scan, or magnetic resonance imaging (MRI).

### How Is Hoarseness Treated?

The treatment of hoarseness (dysphonia) depends on the cause.

- Most hoarseness can be treated by simply resting the voice or modifying how the voice is used.
- Voice therapy
- Surgery
- Botox injection (botulinum toxin)

You and your health care provider should discuss treatment options that are best suited for you once a diagnosis has been made. There is more information on voice therapy in the appendix on page S41 of the guideline.<sup>1</sup>

### How Can Hoarseness Be Prevented?

- Quit smoking, if you use any type of tobacco product
- Avoid beverages that can dehydrate the body, such as alcohol (beer, wine, liquor) and caffeine (soft drinks, coffee)
- Avoid secondhand smoke
- Drink plenty of water, especially in dry areas
- Humidify your home
- Watch your diet—avoid spicy foods
- Avoid excessive throat clearing or coughing
- Try not to use your voice too long or too loudly
- Use a microphone if possible in situations where you need to talk louder than normal speech
- Avoid drying medications such as some antihistamines and diuretics (water pills)
- Seek professional help if your voice is injured or hoarse

See **Figure 1** for information on how to prevent hoarseness.

The clinical practice guideline on hoarseness (dysphonia) offers recommendations about identifying and managing patients with hoarseness (dysphonia). The recommendations are based on the best research evidence to improve the quality of care for most patients with hoarseness (dysphonia). The recommendations, also called *key action statements*, are presented in **Table 1**. You may use the guideline recommendations for discussion with your provider, but your provider will offer care that is best suited for your health needs.

# CLINICAL PRACTICE GUIDELINES

## PATIENT INFORMATION

### HOW TO PREVENT HOARSENESS (DYSPHONIA)

<b>WHAT IS DYSPHONIA?</b>	Altered vocal quality, pitch, loudness, or vocal effort that impairs communication as assessed by a clinician and/or affects quality of life.
<b>WHO IS AT GREATEST RISK FOR DEVELOPING DYSPHONIA (HOARSENESS)?</b>	Individuals who professionally use their voices such as singers, teachers, and call-center operators, certain age groups including children, older persons, and smokers.

#### WHAT PREVENTIVE MEASURES CAN HELP REDUCE VOICE DISORDERS?

<b>DO</b>	Adequately hydrate by drinking plenty of water daily.
<b>DO</b>	Use of amplification (microphone or megaphone) in large noisy spaces can help reduce shouting and voice strain.
<b>DO</b>	Rest your voice briefly to prevent voice fatigue, straining, and overuse.
<b>DO</b>	Provide indoor air humidification in dry, arid environments.
<b>AVOID</b>	Smoking and second-hand smoke from cigarettes, cigars, and pipes that can irritate your airway, throat, nose, and mouth.
<b>AVOID</b>	Overusing or straining your voice by yelling, shouting, speaking over loud noises, and whispering.
<b>AVOID</b>	Excessive throat clearing and coughing.
<b>AVOID</b>	Alcohol (beer, wine, liquor) and caffeine beverages (coffee, soft drinks) as they can dry the throat resulting in mucous thickening.
<b>AVOID</b>	Use of drying medications (some antihistamines, diuretics).

**SOURCE:** Adapted from Stachler RJ, Francis DO, Schwartz SR et al. Clinical Practice Guideline: Hoarseness (Dysphonia) (Update). *Otolaryngol Head Neck Surg*. 2018; 158(Suppl 1):S1-S42



**ABOUT THE AAO-HNS/F**

The American Academy of Otolaryngology-Head and Neck Surgery ([www.entnet.org](http://www.entnet.org)), one of the oldest medical associations in the nation, represents about 12,000 physicians and allied health professionals who specialize in the diagnosis and treatment of disorders of the ears, nose, throat and related structures of the head and neck. The Academy serves its members by facilitating the advancement of the science and art of medicine related to otolaryngology and by representing the specialty in governmental and socioeconomic issues. The AAO-HNS Foundation works to advance the art, science, and ethical practice of otolaryngology-head and neck surgery through education, research, and lifelong learning. The organization's vision: "Empowering otolaryngology-head and neck surgeons to deliver the best patient care."

**Figure 1.** Patient information: how to prevent hoarseness (dysphonia).

**Table 1.** Summary of Evidence-Based Statements.

Statement	Action	Strength
1. Identification of abnormal voice	Clinicians should identify dysphonia in a patient with altered voice quality, pitch, loudness, or vocal effort that impairs communication or reduces QOL	Recommendation
2. Identifying underlying cause of dysphonia	Clinicians should assess the patient with dysphonia by history and physical examination for underlying causes of dysphonia and factors that modify management	Recommendation
3. Escalation of care	Clinicians should assess the patient with dysphonia by history and physical examination to identify factors where expedited laryngeal evaluation is indicated. These include but are not limited to recent surgical procedures involving the head, neck, or chest; recent endotracheal intubation; presence of concomitant neck mass; respiratory distress or stridor; history of tobacco abuse; and whether he or she is a professional voice user	Strong recommendation
4A. Laryngoscopy and dysphonia	Clinicians may perform diagnostic laryngoscopy at any time in a patient with dysphonia	Option
4B. Need for laryngoscopy in persistent dysphonia	Clinicians should perform laryngoscopy, or refer to a clinician who can perform laryngoscopy, when dysphonia fails to resolve or improve within 4 weeks or, irrespective of duration, if a serious underlying cause is suspected	Recommendation
5. Imaging	Clinicians should <i>not</i> obtain computed tomography (CT) or magnetic resonance imaging (MRI) in patients with a primary voice complaint prior to visualization of the larynx	Recommendation against
6. Antireflux medication and dysphonia	Clinicians should <i>not</i> prescribe antireflux medications to treat isolated dysphonia, based on symptoms alone attributed to suspected gastroesophageal reflux disease (GERD) or laryngopharyngeal reflux (LPR), without visualization of the larynx	Recommendation against
7. Corticosteroid therapy	Clinicians should <i>not</i> routinely prescribe corticosteroids in patients with dysphonia prior to visualization of the larynx	Recommendation against
8. Antimicrobial therapy	Clinicians should <i>not</i> routinely prescribe antibiotics to treat dysphonia	Strong recommendation against
9A. Laryngoscopy prior to voice therapy	Clinicians should perform diagnostic laryngoscopy, or refer to a clinician who can perform diagnostic laryngoscopy, before prescribing voice therapy and document/communicate the results to the speech-language pathologist (SLP)	Recommendation
9B. Advocating for voice therapy	Clinicians should advocate voice therapy in patients with dysphonia from a cause amenable to voice therapy	Strong recommendation
10. Surgery	Clinicians should advocate for surgery as a therapeutic option in patients with dysphonia with conditions amenable to surgical intervention such as suspected malignancy, symptomatic benign vocal fold lesions that do not respond to conservative management, or glottic insufficiency	Recommendation
11. Botulinum toxin	Clinicians should offer, or refer to a clinician who can offer, botulinum toxin injections for the treatment of dysphonia caused by spasmodic dysphonia and other types of laryngeal dystonia	Recommendation
12. Education/prevention	Clinicians should inform patients with dysphonia about control/preventive measures	Recommendation
13. Outcomes	Clinicians should document resolution, improvement or worsened symptoms of dysphonia, or change in QOL among patients with dysphonia after treatment or observation	Recommendation

## Where Can I Get More Information?

Patients and health care providers should discuss all evaluation, testing, and follow-up options and to find the best approach for the patient. There is a printable patient handout that explains preventing hoarseness and an FAQ on voice therapy that can help with discussions between patients and providers. Visit <http://www.entnet.org/dysphoniaCPG> for this information. More information can be found on the National Spasmodic Dysphonia Association website at <https://www.dysphonia.org/>

### Author Contributions

**Helene J. Krouse**, writer; **Charles (Charlie) W. Reavis**, writer; **Robert J. Stachler**, writer, chair; **David O. Francis**, writer, assistant chair; **Sarah O'Connor**, writer.

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### References

1. Stachler RJ, Francis DO, Schwartz SR, et al. Clinical practice guideline: hoarseness (dysphonia) (update). *Otolaryngol Head Neck Surg*. 2018;158(suppl 1):S1-S42.
2. Rosenfeld RM, Shiffman RN, Robertson P. Clinical practice guideline development manual, 3rd edition: a quality-driven approach for translating evidence into action. *Otolaryngol Head Neck Surg*. 2013;148(suppl 1):S1-S55.
3. Cohen SM, Kim J, Roy N, et al. Prevalence and causes of dysphonia in a large treatment-seeking population. *Laryngoscope*. 2012;122:343-348.
4. Reiter R, Hoffmann TK, Pickhard A, Brosch S. Hoarseness—causes and treatments. *Dtsch Arztebl Int*. 2015;112:329-337.
5. Cohen SM. Self-reported impact of dysphonia in a primary care population. *Laryngoscope*. 2010;120:2022-2032.
6. Allen S. What causes hoarseness? *Healthline*. 2016, September 26. <http://www.healthline.com/symptom/hoarseness>. Accessed September 25, 2017.
7. Cleveland Clinic Online Health Library. Hoarseness: frequently asked questions. <https://my.clevelandclinic.org/health/articles/hoarseness-frequently-asked-questions>. Accessed September 25, 2017.
8. American Academy of Otolaryngology—Head and Neck Surgery Online Patient Health Library. Hoarseness. <http://www.entnet.org/content/hoarseness>. Accessed September 25, 2017.
9. Columbia University Medical Center. What is otolaryngology? <http://entcolumbia.org/about-us/what-otolaryngology>. Accessed October 3, 2017.