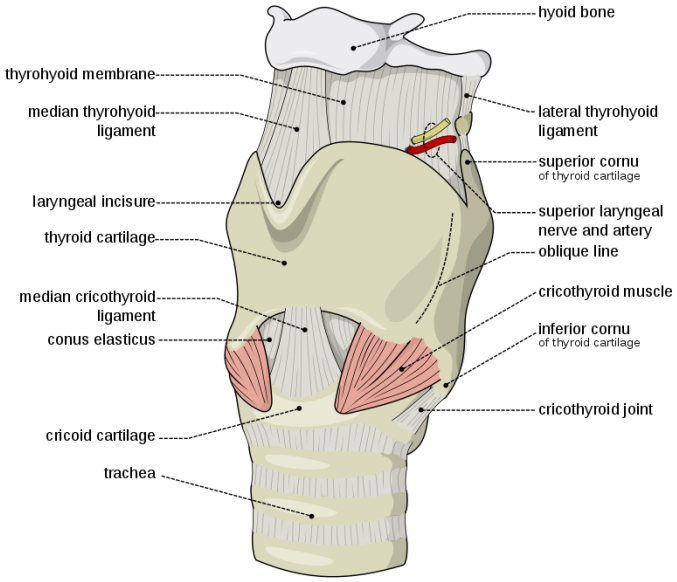
Voice Disorders

Dysphonia (impaired voice production) is a very common complaint affecting nearly one-third of the population at some point in its life.
The term *dysphonia* is often used interchangeably with *hoarseness*; however, this terminology is imprecise, as hoarseness is a symptom of altered voice quality reported by patients, while dysphonia characterizes impaired voice production as recognized by a clinician.



Dysphonia can affect patients of all ages and sex but has an increased prevalence in teachers, older adults, and other persons with significant vocal demands. In fact, voice problems affect 1 in 13 adults annually. While patients report a significant impairment of the voice, a relative minority seeks medical care for the voice problem.

Dysphonia is often caused by benign or self-limited conditions, but it may also be the presenting symptom of a more serious or progressive condition requiring prompt diagnosis and management.

Dysphonia as Symptom of Underlying Disease
Dysphonia is a symptom common to a multitude of diseases. It is important to recognize that patients with head and neck cancer may present with dysphonia. In this group, failure to evaluate the larynx can delay cancer diagnosis, resulting in higher staging, need for more aggressive treatment, and reduced survival rates. Other conditions that cause dysphonia are neurologic (e.g., vocal fold paralysis, spasmodic dysphonia [SD], essential tremor, Parkinson's disease, amyotrophic lateral sclerosis, multiple sclerosis), gastrointestinal (egg, reflux, eosinophilic esophagitis), rheumatologic/autoimmune (e.g., rheumatic arthritis, Sjögren's syndrome, sarcoidosis, amyloidosis, granulomatosis with polyangiitis), allergic, pulmonary (e.g., COPD), musculoskeletal (e.g., muscle tension dysphonia [MTD], fibromyalgia, cervicalgia), psychological (functional voice disorders), traumatic (e.g., laryngeal fracture, inhalational injury, iatrogenic injury, blunt/penetrating trauma), and infectious (e.g., candidiasis), among others.

Muscle Tension Dysphonia
This condition is a voice disorder that constitutes 10% to 40% of caseloads in voice centers, and it is characterized by increased laryngeal musculoskeletal tension with excessive muscular recruitment in the larynx and pharynx.

MTD presents with variable symptoms, including voice change, vocal fatigue, effortful voice production, change in habitual pitch, reduced vocal range, pain with voice use, muscular cramping and neck stiffness.

Dysphonia and Age

Voice disorders affect all ages, but some evidence suggests that risks are higher in paediatric and elderly (>65 years of age) populations. An estimated 23.4% of children have dysphonia at some point, with increased prevalence among boys and those in the 8- to 14-year age range.

Prevalence is also substantially higher among older adults with presbylarynx (i.e., age-related laryngeal changes). In a large nationally representative administrative insurance claims database, the prevalence rate of dysphonia in the treatment-seeking elderly population was 2.5% among patients >70 years.

Dysphonia and Occupation

People in vocations with high vocal demands have increased likelihood of developing dysphonia. This includes, but is not limited to, singers and entertainers, legal professionals, teachers, telemarketers, fitness instructors, and coaches.

Dysphonia can affect a person's ability to work. In the general population, 7.2% of individuals surveyed missed work for ≥1 more days within the preceding year because of a voice problem.

Iatrogenic Dysphonia

Vocal fold injury after intubation is common, with estimates ranging widely from 2.3% to 84%, depending on the age range assessed (infants vs adults), injury definition, and ascertainment methodology. Estimated rates of dysphonia resulting from injury to the recurrent laryngeal nerve after thyroidectomy and anterior cervical spine surgery also range widely in the literature. Cardiothoracic procedures for children and adults represent another source of recurrent laryngeal nerve injury.

Medication Side Effects

Medication side effects are another etiology of and contributor to dysphonia. While many medications have dysphonia as a potential side effect, inhaled steroids and drying agents (e.g., anticholinergics, antihistamines, decongestants, and antihypertensives) are most closely linked to dysphonia. Steroid inhalers may cause fungal and nonspecific laryngitis. Drying medications were associated with 2.32- and 4.52-fold increased odds of dysphonia in a recent cross-sectional study.

Recent Practice guidelines recommend that '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.'

For more on voice disorders, please see the full referenced text here;

Stachler, R. J., Francis, D. O., Schwartz, S. R., Damask, C. C., Digoy, G. P., Krouse, H. (2018). Clinical Practice Guideline: Hoarseness (Dysphonia) (Update). *Otolaryngology–Head and Neck Surgery*, *158*(1_suppl), S1–S42. https://journals.sagepub.com/doi/10.1177/0194599817751030