

Table 11-8 Classification of Voice/Speech Impairment

	Class 1 0%-14% Voice/ Speech Impairment	Class 2 15%-34% Voice/ Speech Impairment	Class 3 35%-59% Voice/ Speech Impairment	Class 4 60%-84% Voice/ Speech Impairment	Class 5 85%-100% Voice/ Speech Impairment
Audibility	Can produce speech of an intensity sufficient for <i>most</i> needs of everyday speech, although this sometimes may require effort and occasionally may be beyond individual's capacity	Can produce speech of an intensity sufficient for <i>many</i> needs of everyday speech and is usually heard under average conditions; however, may have difficulty being heard in noisy places—such as cars, buses, trains, train stations, or restaurants	Can produce speech of an intensity sufficient for <i>some</i> needs of everyday speech such as close conversation; however, has considerable difficulty at a distance or in noisy places—such as cars, buses, trains, train stations, or restaurants—because the voice tires easily and tends to become inaudible after a few seconds	Can produce speech of an intensity sufficient for a <i>few</i> needs of everyday speech, but can barely be heard by a close listener or over the telephone and may be able to whisper audibly but with no louder voice	Can produce speech of an intensity sufficient for <i>no</i> needs of everyday speech
Intelligibility	Can perform <i>most</i> articulatory acts necessary for everyday speech, but may occasionally be asked to repeat and find it difficult or impossible to produce some phonetic units	Can perform <i>many</i> articulatory acts necessary for everyday speech and be understood by a stranger, but may have numerous inaccuracies and sometimes appears to have difficulty articulating	Can perform <i>some</i> articulatory acts necessary for everyday speech and can usually converse with family and friends, but may be understood by strangers only with difficulty and often may be asked to repeat	Can perform a <i>few</i> articulatory acts necessary for everyday speech, can produce some phonetic units, and may have approximations for a few words such as names of own family members, but is unintelligible out of context	Can perform <i>no</i> articulatory acts necessary for everyday speech
Functional Efficiency	Can meet <i>most</i> demands of articulation and phonation for everyday speech with adequate speed and ease, but occasionally may hesitate or speak slowly	Can meet <i>many</i> demands of articulation and phonation for everyday speech with adequate speed and ease, but sometimes speaks with difficulty and speech may be discontinuous, interrupted, hesitant, or slow	Can meet <i>some</i> demands of articulation and phonation for everyday speech with adequate speed and ease, but can sustain consecutive speech only for brief periods and may give the impression of being easily fatigued	Can meet a <i>few</i> demands of articulation and phonation for everyday speech with adequate speed and ease (such as single words or short phrases), but cannot maintain uninterrupted speech flow; speech is labored and rate is impractically slow	Can meet <i>no</i> demands of articulation and phonation for everyday speech with adequate speed and ease

For voice and/or speech impairments, the classifications in Table 11-8 and Table 11-9 should be used. Note that the impairment ratings for speech and/or voice impairments are not evaluated separately. The degree of impairment of speech and/or voice is equivalent to the greatest percentage of impairment recorded in any one of the three sections (audibility, intelligibility, or functional efficiency) of the classification chart (Table 11-8).

Table 11-9 Voice/Speech Impairment Related to Impairment of the Whole Person

% Voice/ Speech Impairment	% Impairment of the Whole Person	% Voice/ Speech Impairment	% Impairment of the Whole Person
0	0	50	18
5	2	55	19
10	4	60	21
15	5	65	23
20	7	70	24
25	9	75	26
30	10	80	28
35	12	85	30
40	14	90	32
45	16	95	33
		100	35

Class 1:**0%-14% Voice/Speech Impairment**

Audibility: Can produce speech of an intensity sufficient for most needs of everyday speech, although this sometimes may require effort and occasionally may be beyond individual's capacity

Intelligibility: Can perform most articulatory acts necessary for everyday speech, but may occasionally be asked to repeat and find it difficult or impossible to produce some phonetic units

Functional efficiency: Can meet most demands of articulation and phonation for everyday speech with adequate speed and ease, but occasionally may hesitate or speak slowly

Example 11-19**0% to 14% Voice/Speech Impairment**

Subject: 47-year-old woman.

History: Professional operatic soprano and voice teacher; had sudden onset of dysphonia 1 year previously; diagnosis was vocal fold hemorrhage. Developed vocal fold mass secondary to hemorrhage. Gastroesophageal reflux. Five vocal fold surgeries for repeated vocal fold masses. Had operations to attempt to reduce vocal fold scar. Advised to undergo another surgical procedure that would implant fat into vocal fold.

Current Symptoms: Husky speaking voice; lowered pitch; oral dryness; postnasal drip. Unable to sing or perform professionally since vocal fold hemorrhage.

Physical Exam: Voice is mildly hoarse, mildly soft, and slightly breathy. Left vocal fold posthemorrhagic cyst, right vocal fold mass, left vocal fold scar, possible mild superior laryngeal nerve paresis, muscular tension dysphonia, and gastro-esophageal reflux disease on laryngeal examination by stroboscopy. Singing technique was very good and was able to correct minor technical deficiencies.

Clinical Studies: Mild decrease in maximum phonation time and air-conduction flow.

Diagnosis: Recurrent vocal fold hemorrhage and vocal fold scar. Intermittently uncontrolled gastroesophageal reflux disease. Obesity. Inability to regain singing voice she had prior to the vocal fold injury. Altered and diminished self-image.

Impairment Rating: 0% to 14% voice/speech impairment; 0% to 5% impairment of the whole person.

Comment: Afraid her career is over. Traumatic change in self-image. Unable to resume her living as an internationally known opera star. Resigned her teaching position in Europe and moved to the

United States to receive necessary voice care. Voice is now of a sufficient intensity for most everyday speech needs. However, because of her emotional distress, loss of her previous occupation as an international opera star, and change in activities of daily living, an impairment rating is warranted.

Example 11-20**0% to 14% Voice/Speech Impairment**

Subject: 58-year-old man.

History: Attorney; underwent thoracoscopic excision of mediastinal schwannoma 2 months previously. Postoperatively immediately developed hoarseness, breathiness, and dysphagia. Was diagnosed with bilateral vocal fold weakness. Underwent speech therapy but voice did not improve. Computed tomography (CT) scan of larynx 1 month later revealed dislocated arytenoid cartilage.

Current Symptoms: Hoarseness; breathiness; decreased volume; lower pitch; voice fatigue. Cannot effectively communicate with clients in courtroom.

Physical Exam: All symptoms were noted, but examination of head and neck was otherwise normal. Left arytenoid dislocation and left vocal fold paresis on stroboscopy. Sulcus vocalis.

Clinical Studies: Laryngeal electromyogram: left superior laryngeal nerve paresis with 50% decreased recruitment of left posterior cricoarytenoid and vocalis muscle and 70% decreased recruitment response of left cricothyroid muscle. Normal right superior laryngeal nerve function. Evidence of right recurrent laryngeal nerve paresis. CT scan of larynx: widening of left cricoarytenoid joint with anteromedial rotation of left arytenoid cartilage.

Diagnosis: Markedly decreased intensity, frequency range, and phonation time. All acoustic measurements were severely abnormal.

Impairment Rating: 0% to 14% voice/speech impairment; 0% to 5% impairment of the whole person.

Comment: Had surgical correction of arytenoid dislocation. After surgery his voice was nearly normal, with only slight voice breaks and slightly decreased volume.