

# Dysarthria at a Glance

Patrick McCaffrey, Ph.D (pmccaffrey@csuchico.edu), Professor/Coordinator, Speech Pathology Graduate Program, California State University, Chico  
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Upper Motor Neuron Dysarthria					Lower Motor Neuron Dysarthria
	Ataxic	Hyperkinetic	Hypokinetic	Spastic	Flaccid
<b>Site of Lesion</b>	Cerebellar	Extrapyramidal tract, specifically the basal ganglia; may be unilateral or bilateral	Substantia nigra in Parkinson's, but may be effect of drugs, blows to the head	Only bilateral lesions of the pyramidal tract cause severe cases (pseudobulbar palsy)	LMN neurons involved in speech (CN V, VII, IX, X, XI, XII)
<b>Articulation</b>	Slurred, severely impaired	May not be impaired in some syndromes; Chorea-impresise, Dystonia-irregular	Very slow or festinating	Slow, labored, imprecise, often unintelligible; may be compounded with respiration, resonance and phonation disturbances	Inaccuracy, imprecise consonants, irregular articulatory breakdowns, vowel distortion, prolonged phonemes
<b>Associated Characteristics</b>	Reduced facial expression AKA masked facies	Reduced facial expression AKA masked facies	Reduced facial expression AKA masked facies	Reduced facial expression AKA masked facies	Atrophy over time, fasciculations especially of the tongue, jaw deviates to weakened side while tongue veers to stronger side.
	Prosody and gait affected	Varies with Chorea (quick involuntary) and Dystonia (slow, writhing) but all are superimposition of automatic movements upon volitional movements	Tremors; festinating movements, weak voice, respiration may be affected	Generalized hypotonicity, weakness, sometimes immobility, abnormal force physiology and exaggerated reflexes	
<b>Neurological Disorders</b>	Cerebellar ataxia	Chorea and Dystonias	Parkinson's disease	Pseudobulbar palsy	Bulbar palsy
<b>Phonation</b>	Harsh, loudness may vary excessively	Abnormal in essential tremor syndrome	Hoarse, low volume	Weak voice, harsh, pitch is low, may have pitch breaks	
<b>Prognosis</b>	All prognoses are dependent upon neurological status and history, as well as age, treatment effects, personality, intelligence and support systems.	All prognoses are dependent upon neurological status and history, as well as age, treatment effects, personality, intelligence and support systems.	All prognoses are dependent upon neurological status and history, as well as age, treatment effects, personality, intelligence and support systems.	All prognoses are dependent upon neurological status and history, as well as age, treatment effects, personality, intelligence and support systems.	All prognoses are dependent upon neurological status and history, as well as age, treatment effects, personality, intelligence and support systems.
<b>Prosody</b>	Pronounced problems, tendency to place equal stress on all syllables.	Dystonia may have voice stoppages	Monopitch, monoloudness, pallilalia, articulatory undershoot	Possible bursts of loudness	Slow rate and prolonged intervals, monopitch and monoloudness with vocal fold paralysis
<b>Resonance</b>	Hypernasality not common, but may occur	Hypernasality is common	Hypernasality	Hypernasality typical without nasal emission	Hypernasality if velar elevation effected, may have nasal emission
<b>Speech</b>	Slurred, sometimes described as explosive speech	Varied across syndromes and ranging from total unintelligible to mild problems. See note below.	Bradykinesia causes very slow speech, or festinating speech.	Reduced range of movement, tongue strength, VOT for stops	Slow rate, prolongation of sounds and intervals.
<b>Swallowing</b>				May be moderately affected	
<b>Notes</b>		Dworkin generally recommends therapy of force physiology training and phonetic stimulation across contexts	Muscle movement facilitated by dopaminergic and cholinergic pathway balance (Ferrand and Bloom, 1997)	Emotional lability may be noted	