

# **Motor Speech Disorders**

## ***American Academy of Neurology***

**April 27, 1998**

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### **Spasmodic Dysphonia (Adductor):**

Focal dystonia in the larynx in which the voice is characterized with a range of vocal tension from mild and sufficient tension to stop phonation momentarily. Speech continues but tension is apparent throughout the utterances. When stoppage occurs, it is usually for less than one second, and then speech continues.

### **Spasmodic Dysphonia (Abductor):**

Focal dystonia in the larynx in which the voice manifests excessive abduction of the posterior cricoarytenoid muscles producing the perceptual effect of intermittent breathiness. This is most noticeable immediately following a voice consonant such as /p/, /t/, /k/, /st/, etc., and the voicelessness of the consonant is prolonged prior to the initiation of the subsequent vowel. Speech is ongoing, but this breathiness is apparent throughout the utterance.

### **Vocal Tremor:**

This is a vocal characteristic most noticeable upon vowel prolongation in which the voice modulates in slight but perceivable changes in pitch and intensity at a modulation frequency of 3-5 Hz. It is similar to the vocal characteristic of "vibrato" in singing, but is not controllable as it is in singing.

### **Palatal-Vocal Myoclonus:**

This is a pattern of sudden, jolting, unsustained muscle contractions in the velum and larynx occurring at a rate of between 1-4 Hz. As a result, speech is characterized by intermittent voice arrests (laryngeal component) and intermittent hypernasality as the velum moves between tight closure and relative openness (palatal component).

### **Hyperkinetic Dysarthria:**

Speech which is characterized by variable articulatory imprecision, vocal harshness, and prosodic abnormalities. These movement abnormalities of the motor speech system can be quick or slow in nature, but the overwhelming characteristic is that of too much or excessive muscle contraction.

### **Flaccid Dysarthria:**

This is a pattern motor speech disorder characterized by weak muscle function resulting in speech and voice patterns which are monotonous, reduced in stress, and imprecise in consonant articulation with excessive breathiness and hypernasality. Lower motor neuron disease.

### **Spastic Dysarthria:**

This is a pattern of motor speech disorder characterized by hypertonic muscle contraction of laryngeal, pharyngeal, and articulatory muscles of speech. Speech and voice are labored, slow and inaccurate and reflect hyperreflexia of the structures involved. Bilateral upper motor neuron disease.