Type of dysarthria: Flaccid dysarthria

Relative frequency of occurrence: About 10% of all dysarthrias at Mayo Clinic

Neuropathology: Caused by injury or malfunction of one or more cranial or spinal nerves. Reflects problem in the nuclei, axons, or neuromuscular junctions that make up the motor units of the final common pathway (FCP). Because flaccid paralysis reflects FCP damage, reflexive, automatic, and voluntary movements are all affected.

List of etiologies: Can be caused by any process that damages the motor unit. These include degenerative, inflammatory, toxic, metabolic, neoplastic, traumatic, and vascular diseases. Some disorders associated with flaccid dysarthria are myasthenia gravis, brainstem strokes, polio, Guillain-Barre syndrome, muscular dystrophy, progressive bulbar palsy, and cranial nerve neuropathies.

Table of neuromuscular deficits:

Direction	Rhythm	Rate		Range		Force	Tone
Indiv Mvmts	Rep Mvmts	Indiv Mvmts	Rep Mvmts	Indiv Mvmts	Rep Mvmts	Indiv Mvmts	Muscle Tone
Normal	Regular	Normal	Normal	Reduced	Reduced	Weak	Reduced

Speech and nonspeech characteristics: Deficits depend on which cranial nerves are affected.

- Trigeminal (V)
  - Unilateral mandibular branch lesions – jaw deviates to weak side
  - Bilateral mandibular branch lesions – jaw hangs open at rest, affects production of labial and lingual consonants
  - Sensory branches – decreased sensation in face, trigeminal neuralgia
- Facial (VII)
  - Facial paralysis – difficulty with labial consonants, lip rounding and spreading for vowels
  - Bell's palsy – drooling
- Glossopharyngeal (IX)
  - Reduced gag reflex, some influence on resonance and phonation
- Vagus (X)
  - Above pharyngeal branch – breathiness, hoarseness, hypernasality, weak pressure consonants
  - Below pharyngeal branch – breathiness, hoarseness, no resonance problems
  - Superior branch only – breathiness, hoarseness, reduced loudness, reduced pitch range
  - Recurrent branch only – breathiness, hoarseness, reduced loudness
- Accessory (XI)
  - Blah, blah, blah
- Hypoglossal (XII)
  - Blah, blah, blah

Possible therapy techniques:

- Strengthening exercises
- Rate Reduction
- Lee Silverman Voice Treatment
- Prosthetic devices

References: García, J.M., and Cannito, M.P. (1996). Influence of verbal and nonverbal contexts on the sentence intelligibility of a speaker with dysarthria. Journal of Speech and Hearing Research, 39, 750 – 760.