

SPEECH CHARACTERISTICS: SELECTED POPULATIONS

| | POPULATION | SPEECH CHARACTERISTICS |
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| MOTOR SPEECH-BASED | Dysarthria Neurologic motor condition that affects muscles involved in speech production | <ul style="list-style-type: none"> • slow, labored, imprecise articulation, especially of consonants • fluctuating imprecision • sound prolongations • irregular pausing between words, syllables, and sounds • fluctuating imprecise articulation |
| | Childhood Apraxia of Speech (CAS) Neurological childhood (pediatric) speech sound disorder in which the precision and consistency of movements underlying speech are impaired in the absence of neuromuscular deficits (ASHA, 2007b) | <ul style="list-style-type: none"> • more errors in sound classes involving complex oral gestures • unusual errors not typically found in children with speech sound disorders • a large percentage of omission errors • difficulty producing and maintaining appropriate voicing • difficulty sequencing speech sounds and syllables • difficulties with nasality and nasal emission • groping behavior and silent posturing • prosodic impairment |

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| <p style="text-align: center;">STRUCTURALLY-BASED</p> | <p style="text-align: center;">Cleft Palate and/or Cleft Lip</p> <p style="text-align: center;">Congenital deficits that affect the structural integrity of the lip and/or palate</p> | <ul style="list-style-type: none"> • hypernasal resonance of vowels, vocalic consonants, glides, and liquids • reduced or diminished intraoral pressure during production of pressure consonants • nasal air emission on production of pressure consonants • compensatory errors (e.g., glottal stops for stop consonants, pharyngeal fricatives for sibilants) • consonant cluster reductions and placement or omission errors |
| <p style="text-align: center;">SYNDROME-RELATED</p> | <p style="text-align: center;">Down Syndrome</p> <p style="text-align: center;">Genetic syndrome associated with intellectual impairment, limitations in adaptive skills, and anatomical differences in tongue size (relative macroglossia)</p> | <ul style="list-style-type: none"> • lack of articulatory precision and appropriate pausing and phrasing • error patterns may be similar to children who demonstrate a speech delay • vowel errors due to anatomical and/or motor limitations of the tongue (Bunton & Leddy, 2011) • reduction of consonant clusters and final consonant deletion are the most frequent errors • errors are typically inconsistent • speech sound errors frequently result in reduced intelligibility in conversation (Kent & Vorperian, 2013) |

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| <p style="text-align: center;">SENSORY-RELATED</p> | <p style="text-align: center;">Hearing Loss/Impairment</p> <p style="text-align: center;">Condition that can affect speech perception and production to varying degrees depending on age of onset and severity</p> | <ul style="list-style-type: none"> • consonant deletions (especially of final consonants) • consonant substitutions (frequent confusion of voiced and voiceless cognates, substitution of stops for fricatives and liquids, confusion between oral and nasal consonants) • vowels tend to be neutralized • reduced overall speech intelligibility particularly as linguistic complexity increases • reduced speech rate, slow articulatory transitions with frequent pauses • poor coordination of breathing with syntactic phrasing, use of duration to create stress patterns • distorted resonance |
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Bunton, K., & Leddy, M. (2011). An evaluation of articulatory working space area in vowel production of adults with Down syndrome. *Clinical Linguistics & Phonetics*, 25, 321-334.

Kent, R. D., & Vorperian, H. K. (2013). Speech impairment in Down syndrome: A review. *Journal of Speech, Language, and Hearing Research*, 56(1), 178-210.