## SPEECH CHARACTERISTICS: SELECTED POPULATIONS

<table>
<thead>
<tr>
<th>POPULATION</th>
<th>SPEECH CHARACTERISTICS</th>
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| **Dysarthria**  
Neurologic motor condition that affects muscles involved in speech production  | • 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)  | • 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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<tr>
<th>STRUCTURALLY-BASED</th>
<th>Cleft Palate and/or Cleft Lip</th>
<th>SYNDROME-RELATED</th>
<th>Down Syndrome</th>
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<td>Congenital deficits that affect the structural integrity of the lip and/or palate</td>
<td><strong>•</strong> hypernasal resonance of vowels, vocalic consonants, glides, and liquids</td>
<td><strong>•</strong> lack of articulatory precision and appropriate pausing and phrasing</td>
<td>Genetic syndrome associated with intellectual impairment, limitations in adaptive skills, and anatomical differences in tongue size (relative macroglossia)</td>
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<td><strong>•</strong> reduced or diminished intraoral pressure during production of pressure consonants</td>
<td><strong>•</strong> error patterns may be similar to children who demonstrate a speech delay</td>
<td><strong>•</strong> vowel errors due to anatomical and/or motor limitations of the tongue (Bunton &amp; Leddy, 2011)</td>
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<td><strong>•</strong> nasal air emission on production of pressure consonants</td>
<td><strong>•</strong> reduction of consonant clusters and final consonant deletion are the most frequent errors</td>
<td><strong>•</strong> errors are typically inconsistent</td>
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<td><strong>•</strong> compensatory errors (e.g., glottal stops for stop consonants, pharyngeal fricatives for sibilants)</td>
<td><strong>•</strong> speech sound errors frequently result in reduced intelligibility in conversation (Kent &amp; Vorperian, 2013)</td>
<td><strong>•</strong> consonant cluster reductions and placement or omission errors</td>
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| SENSORY-RELATED | **Hearing Loss/Impairment** | • 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 |
