



- Delayed Speech
- Developmental Coordination Disorder
- Speech Impairments
- Non-communicative Speech
- Oral/Verbal Apraxia
- Language Disorders
- Feeding Difficulties
- Autism/Asperger's/PDD
- Developmental Delay
- Cerebral Palsy
- Sensory Integration Disorders
- Sensory Modulation Disorders
- Handwriting Impairments
- Fine & Gross Motor Delays



## Challenged Communication between Mind and Mouth



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Imagine that you are trying to speak to others. You know exactly what you want to say and what tone, inflection, and speed to use, but your mouth, throat, and tongue simply won't cooperate with you. Your muscles and joints seem otherwise healthy. You can chew and swallow. But you simply can't use speech the way you want. This could be apraxia of speech.

The American Speech-Language-Hearing Association defines childhood apraxia of speech (CAS) as a neurological childhood speech-sound disorder in which the precision and consistency of movements underlying speech are impaired in the absence of neuromuscular deficits.<sup>1</sup> However, neuromuscular deficits may or may not be present as a co-existing condition. Etiologies may be idiopathic, neurological, and neurobehavioral. CAS can result from infections, trauma, or heredity, or it can occur with no apparent cause.

CAS is characterized by delayed onset of speech, limited babbling as an infant, restricted sound inventory, atypical prosody, and inconsistent sound errors.<sup>2</sup> CAS is difficult to diagnose, but it is clinically recognizable in children as young as two. While children who do not receive therapy can achieve modest improvements over time, there are no recorded cases of children with confirmed CAS "growing out of it." CAS identified in the preschool years has been documented to persist into school ages, and the expert consensus is that childhood apraxia of speech does not resolve independently.<sup>3</sup> **The good news is that, even in severe cases, techniques of pediatric speech therapy delivered intensively over time create strong improvements.**<sup>4,5</sup>

Part of the difficulty associated with diagnosing childhood apraxia of speech stems from the high prevalence of co-existing conditions. Children with CAS commonly present with other speech and language impairments and other differences in sensory processing, attention regulation, vestibular function, temperament, fine motor skills, and literacy.<sup>6,7</sup> The high prevalence of important, co-existing conditions not only underscores the importance of a qualified pediatric speech/language evaluation, it also highlights the desirability of a combined speech/occupational therapy approach to achieve optimal outcomes for most children.



### Affordable Care at Emerge – A Child's Place

Many parents find that insurance coverage for pediatric occupational or speech therapy is often limited. In these cases, Emerge has even more to offer in addition to uncompromising quality of care and excellent facilities. Even though the quality of care at Emerge is at the highest levels, you will find the fees at Emerge to be the most affordable.

Please tell parents about Emerge – A Child's Place  
Believing in a Child's Potential to Flourish

## References:

1. American Speech-Language-Hearing-Association. Childhood Apraxia of Speech. [Position Statement] 2007. Available from [www.asha.org/policy](http://www.asha.org/policy).
2. Forrest K. Diagnostic criteria of development apraxia of speech used by clinical speech-language pathologists. *American Journal of Speech-Language Pathology*. 2003; 12 (3): pp. 376-380.
3. Lewis B, Freebairn L, Hansen A, Iyengar S. School-age follow-up of children with childhood apraxia of speech. *Language, Speech, and Hearing Services in Schools*. 2004; 35: 122-140.
4. Iuzzini J, Forrest K. Evaluation of a combined treatment approach for childhood apraxia of speech. *Clin Linguist Phon*. 2010 Jan; 24 (4-5): 335-45.
5. Zaretsky E, Velleman S, Curro K. Through the magnifying glass: Underlying literacy deficits and remediation potential in childhood apraxia of speech. *Int J Speech Lang Pathol*. 2010 Feb; 12 (1): 58-68.
6. Teverovsky E, Bickel J, Feldman H. Functional characteristics of children diagnosed with childhood apraxia of speech. *Disabil Rehabil*. 2009; 31 (2): 94-102.
7. Newmeyer A, Aylward C, Akers R, et al. Results of the sensory profile in children with suspected childhood apraxia of speech. *Phys Occup Ther Pediatr*. 2009; 29(2): 205-20.