

CHILDHOOD APRAXIA OF SPEECH



What is childhood apraxia of speech?

Childhood Apraxia of Speech is a type of speech difficulty. It is often referred to just by the letters CAS.

CAS is a difficulty with voluntarily moving mouth parts such as the tongue, lips and jaw in order to produce speech. The child knows what they want to say but they have difficulty making and coordinating the movements to say words clearly. However, there is no damage to nerves or muscles. CAS is mainly a difficulty with making and coordinating muscle movements.

CAS may be mild, moderate or severe. In some severe cases, the child's speech may be unintelligible even to family members.

Is CAS called anything else?

- developmental apraxia of speech
- developmental verbal dyspraxia

How does CAS affect speech?

- The speech of children with CAS typically shows sequencing difficulties, such as:
 - difficulty alternating between single sounds in words, e.g. *teapot* may become *teatop*
 - difficulty producing long words with many syllables, e.g. *elephant* and *hippopotamus*
 - difficulty sequencing words in sentences, i.e. words said on their may sound accurate but when joined with other words in a sentence they become unclear
- Speech is often inconsistent – on one occasion the child might say a word clearly but then on another occasion they will say the same word incorrectly.
- The child may not use all of the consonants and vowels that we would expect them to use for their age.
- Some speech sounds may be left out altogether or replaced by a different speech sound. These are known as *omissions* and *substitutions*.
- Speech may lack the natural 'sing song' quality of rises and falls in pitch and loudness.
- The tone of the speech may be affected – sometimes the speech may sound 'nasal', as if too much sound is coming through the nose.

Can there be other difficulties?

Depending on a child's age and stage of development, they may also experience some of the following.

- Feeding difficulties.
- Delayed language development – using language to communicate (expressive language) is usually affected more than understanding of language (receptive language).
- Difficulties with whole body or limb movements.
- Difficulties with hand, finger, and eye movements.
- Reading, spelling and writing difficulties.

What causes CAS?

In most cases, the cause of CAS is unknown. We simply don't know why a child has difficulty making and coordinating speech sounds. However, we do know that it can occur in children who have been diagnosed with genetic and metabolic disorders, and some syndromes, e.g. autism, Fragile X Syndrome. It can also occur as a result of brain injury.

Speech therapy

Usually, children with CAS do not get better without help. We know that they improve more quickly if they have regular (3-5 times a week), hands-on speech therapy from a qualified Speech-Language Pathologist. They also improve more quickly if they have regular practice outside any therapy sessions, e.g. by school staff and at home by family members.

Speech therapy focuses on improving the coordination of muscle movements to produce clear speech. Children with CAS typically find speech work difficult and progress can be slow. Depending on the severity of the difficulty, improvements can take a number of years. Every child will benefit from a supportive and committed family.

I'm worried, what should I do?

Get a hearing check

As with any possible speech difficulty, the child's hearing should be checked first. You can either contact an audiologist directly or ask your speech-language pathologist to make the referral for you.

Contact a speech-language pathologist

A qualified speech-language pathologist will need to assess the child's speech. This involves:

- checking how clearly speech sounds are produced on their own, in words and in sentences
- checking the face, tongue and jaw muscles for signs of weakness
- checking the ability to stress words and vary the pitch of the voice

The child's language skills and their reading, spelling and writing skills may also be checked to see if there are any other associated difficulties. Diagnosis is complex and often becomes clearer over time as the child's difficulties unfold.