
Childhood apraxia of speech

Summary

- Childhood apraxia of speech (CAS) is a disorder that involves difficulty in making speech sounds voluntarily and stringing these sounds together in the correct order to make words.
 - A person with childhood apraxia of speech is not intellectually impaired.
 - Speech pathologists assess, diagnose and support people with CAS.
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Childhood apraxia of speech (CAS) is a disorder that affects a person's ability to organise the movements of the muscles used in speech. The person has difficulty making speech sounds voluntarily and stringing these sounds together in the correct order to make words.

Childhood apraxia of speech is a speech disorder that can continue into adult life. Other names for the disorder are developmental apraxia of speech (DAS) or developmental verbal dyspraxia (DVD).

In a person with CAS, there is usually nothing wrong with the muscles used in speech. The difficulty seems to occur because of a breakdown in the messages sent from the brain to the muscles. This does not mean that the person has an intellectual impairment.

It is difficult to estimate how many people have CAS, because not all researchers and professionals agree on the features that make up this disorder. At this stage, there is no information available to tell us how many people have a diagnosis of CAS.

Causes of childhood apraxia of speech

There is no known cause of CAS. Some people think that a particular area of the brain has been affected or has not developed normally. There is no evidence to suggest this is correct. Others think there may be a genetic factor that causes a person to have CAS. Again, there is no evidence to support this view. Further research is ongoing to see if a cause can be found.

Features of childhood apraxia of speech

A person diagnosed with CAS may:

- pronounce the same word differently each time they say it
- have general difficulties moving the muscles of their mouth and throat – for example, they may have trouble chewing, sucking, blowing or making certain speech sounds
- look like they are searching or groping for the right sound
- have difficulty imitating sounds and words
- use a limited number of consonant sounds when speaking
- mix up the order of sounds in words
- have more difficulty saying longer words and sentences than shorter ones.

Signs of childhood apraxia of speech in young children

Some very young children show signs that they may be having difficulty planning movements of their tongue, lips and jaw.

Signs that may indicate a child is at risk of future speech difficulties include:

- babies who don't play with sounds – for example, coo or babble

- babies and young children who have difficulties sucking, swallowing and chewing
- young children who are not starting to speak like other children their age (remembering that there is enormous variation between children)
- young children who only use noises, gestures and vowel sounds to communicate.

Other problems associated with CAS

People who have a diagnosis of CAS may also experience:

- feelings of frustration because they can't get their message across
- oral language difficulties, such as the ability to turn sounds into meaning
- difficulties with reading and spelling
- sucking, chewing and swallowing problems
- difficulty performing movements with their tongue and lips when asked to do so
- clumsiness.

Diagnosis of childhood apraxia of speech

If you are worried about your child's speech development, talk to your GP or maternal and child health nurse. They will be able to refer you to a speech pathologist. You can also make an appointment or call a speech pathologist directly without a referral. A speech pathologist can assess whether your child has CAS or whether their speech difficulties are due to another cause.

Use Speech Pathology Australia's '[Find a speech pathologist](#)' service to find a speech pathologist in your area.

Support for people with childhood apraxia of speech

If your child has been diagnosed with CAS, the speech pathologist will then work with them to improve their speech and their reading, spelling and language abilities (if required).

Your child may be eligible for some support under the **Chronic Disease Management (CDM)** items that are available under Medicare to patients with a chronic medical condition. Ask your GP and speech pathologist for more information.

Planning a childhood apraxia of speech support program

There are lots of things a speech pathologist will consider when planning a support program for a person with CAS.

Factors to consider include:

- the severity of the speech disorder
- the person's ability to concentrate on the program
- the person's ability to understand what is expected
- the commitment of the person and their family to support the program
- the need to create a supportive environment.

People with a diagnosis of CAS may take time to show improvements in their speech and language. They will need to participate in an intensive therapy program for a number of years. Frequent sessions with a speech pathologist can help.

Speech pathology strategies for CAS

A speech pathologist working with a person with CAS may:

- ask the person to imitate sounds, syllables and words
- teach the person about sounds and explain the rules about when to use certain sounds in words
- use gestures or pictures or touch specific points on the face or neck to help the person make the right sound or sequence of sounds
- introduce other ways to communicate, such as communication boards, key word signing or voice output

devices. This will also help to reduce some of the frustration that naturally occurs if a person has difficulty getting their message across.

Support from a team of professionals

A number of people may make up the team of professionals who support a person with CAS. Speech pathologists are key members of this team. Other team members may include:

- teachers
- psychologists
- occupational therapists.

The person with CAS and their parents or carers (in the case of children) are important members of the team and should be encouraged to contribute to goal setting and reviews of the treatment program.

CAS – suggestions for parents, carers and family members

Remember that the person with CAS will need to work through an intensive therapy program for an extended period of time.

Try to be supportive and allow the person time to communicate. Placing pressure on a person with CAS may make speaking more difficult for them. Remember, a person with CAS is not intellectually impaired and they do understand what is being said.

Where to get help

- Your **GP (doctor)**
- **Speech pathologist**
- Your local school or Department of Education and Training speech pathologist (if available)
- Community health centre
- Speech Pathology Australia **Find a Speech Pathologist** service Tel. **1300 368 835** or **(03) 9642 4899**

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