



Fact Sheet - Speech disorders

Dysarthria

Dysarthria is a speech disorder that can cause speech to sound slurred or slow and can make speech difficult for others to understand.

Dysarthria is a disorder of speech muscle tone or co-ordination. It can occur as part of other conditions that affect the brain or muscles. It can range from mild to severe.

While dysarthria can make speech sound different, it does not reflect a person's cognitive abilities.

What are the signs of dysarthria?

Dysarthria can affect one or all areas involved in speech production (e.g., articulation, breath support, rhythm, voice, resonance).

Signs of dysarthria can vary depending on the type of dysarthria, the cause, and how severe it is. Signs may include:

- Difficulty accurately and quickly moving muscles for speech (e.g., lips, tongue)
- Slow or imprecise speech
- Disordered speech nasality (e.g., sounding like a blocked nose)
- Altered rhythm/stress patterns of speech
- Monotonous speech, i.e., limited range in pitch
- Limited range of volume (e.g., too soft, too loud)
- Impairment in voice (e.g., breathy, tremulous, or raspy sounding)

To access video examples of dysarthric speech, click the links below:

[Video link 1](#) (Mei et al. 2020)

[Video link 2](#) (Turner et al. 2017)



What causes dysarthria?

Dysarthria can result from conditions that affect the nervous system. Sometimes a condition may cause the muscles to have increased tone (spasticity), or decreased tone (hypotonia). This makes muscles used for speech weak or difficult to coordinate.

Conditions that may cause dysarthria include:

- Brain injury or tumour
- Cerebral palsy
- Muscular dystrophy
- Stroke
- Brain malformations e.g., polymicrogyria
- Genetic conditions e.g., *DYRK1A*-related condition, Dravet syndrome

How is dysarthria diagnosed?

Qualified speech pathologists (also known as speech-language pathologists or speech therapists) can assess your child's speech to determine whether they have dysarthria, another type of speech disorder, or a combination of these.

Assessments usually involve checking how your child moves their mouth, lips, tongue, and how much



breath support they have for speaking. Speech pathologists will also listen to and examine your child's speech during conversation as well as during speaking tasks.

It may also be helpful for your child to see a neurologist, who can investigate the underlying cause of the dysarthria if this is not already known.

How is dysarthria treated?

Speech pathologists can work with your child and family to determine the best treatment options suited to your child. Treatment may vary depending on the type of dysarthria, how severe it is, and what other strengths and challenges your child is experiencing. Therapies may focus on speech rate, breath support for speech, improving clarity of sounds, as well as augmentative and alternative communication (AAC) options such as visual aids, gestures, or computer-based technologies.

References

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