

Glossary

Dysarthria

Dysarthria is a disorder that affects the nerves and muscles involved in speaking, so that the control of movements for speech is reduced.

Dysarthria affects all stages of speech production (breath support, voice, resonance and articulation).

Characteristics

Children with dysarthria typically sound 'slurred' with imprecise articulation.

They may speak slower and often have shallow, irregular breathing, speaking on small, residual pockets of air. These breathing co-ordination difficulties can make speaking effortful.

Children with dysarthria have difficulty regulating the pitch and volume of the voice and using the rise and fall of intonation patterns to convey meaning. The voice may sound breathy, hoarse and/or excessively nasal.

Together, these difficulties make speech difficult to understand.

Causes

Dysarthria may be caused by:

- Neurological damage sustained before, during or after birth eg: Cerebral Palsy, neonatal stroke or
- Injuries eg: traumatic brain injury and brain infections,
- Medical conditions eg: Fragile-X syndrome, Friedreich's ataxia, muscular dystrophy.

Dysarthria can range in severity from mild, through moderate to severe.

Assessment and intervention

There are five types of dysarthria that can occur in children: spastic, flaccid, ataxic, hyperkinetic and mixed dysarthrias.

Speech and language therapy aims to help children develop and use effective communication and language systems, support skills that contribute to effective communication and promote a communicatively responsive environment.

Speech and language therapists will identify where there is a need for alternative and augmentative communication (AAC) to support independent communication, for example if a child has severe dysarthria or their intelligibility is severely impaired.

There is currently limited research available regarding the effectiveness of speech and language therapy for improving the speech of children who had acquired dysarthria before the age of three. Small, observational research studies have suggested that for some children therapy might have been associated with positive changes in intelligibility and clarity of children's voices.

There is no reliable research evidence that interventions focusing on moving the articulators in an isolated non-speech way, are useful.

Drooling may accompany dysarthria and some children with dysarthria have eating difficulties (dysphagia) that also require speech and language therapy and management.

References

Bowen C and Snow P (2017) *Making Sense of Interventions for Children with Developmental Disorders: A Guide for Parents and Professionals*. Croyden: J & R Press Ltd

Pennington L and Cockerill H (2015) What interventions can improve the speech intelligibility of children with cerebral palsy who have dysarthria? *Bulletin, July 2015, 20-21*

Pennington L, Miller N and Robson S (2009) Speech therapy for children with dysarthria acquired before three years of age. *Cochrane Database of Systematic Reviews 2009, Issue 4. Art. No.: CD006937*. DOI: 10.1002/14651858.CD006937.pub2

Pennington L, Parker N K, Kelly H and Miller N (2016) Speech therapy for children with dysarthria acquired before three years of age. *Cochrane Database of Systematic Reviews, 2016, Issue 7. Art. No.: CD006937*. DOI: 10.1002/14651858. CD006937.pub3 cited in Bowen C and Snow P above

Royal College of Speech and Language Therapists (2017) *Developmental Speech Difficulties*. https://www.rcslt.org/clinical_resources/motor_disorders

The Communication Trust (2013) *Other Ways of Speaking* 2nd Edition. https://www.thecommunicationtrust.org.uk/media/3414/other_ways_of_speaking_final.pdf

Please note: Afasic does not hold copies of any referenced material. These publications should be available at academic libraries.

Other organisations and online resources that may help

Royal College of Speech and Language Therapists
RCSLT
2 White Hart Yard
London SE1 1NX
Tel: 020 7378 1200
<https://www.rcslt.org/>

The professional body for speech and language therapists

Scope

PO Box 833
Milton Keynes
MK12 5NF
Tel: 0808 800 3333 (Freephone)
Email: helpline@scope.org.uk
<https://www.scope.org.uk>

Association for Rehabilitation of Oral Skills (ARCOS)

Hatherton Lodge
Avenue Road
Malvern
Worcestershire WR14 3AG
Tel: 01684 576795
Email: admin@arcos.org.uk
<http://arcos.org.uk>

Communication Matters

Leeds Innovation Centre
103 Clarendon Road
Leeds LS2 9DF
Tel: 0845 456 8211
Email: admin@communicationmatters.org.uk
<http://communicationmatters.org.uk>

The Communication Trust

Unit 31 Angel Gate
Goswell Road
London EC1V 2PT
Tel: 020 7843 2526
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<https://www.thecommunicationtrust.org.uk>
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