Communicating Phonics

Section 4 > Different types of speech, language and communication needs > Children with dysarthria

Children with dysarthria

General information

- Dysarthria is a movement disorder caused by brain dysfunction or injury. It results in difficulties in moving the muscles needed for speech, eating and drinking
- Dysarthria occurs in a number of neurological conditions (for example, cerebral palsy)
- Dysarthria can affect precision, speed and/or range of speech movements, with difficulties controlling breathing needed for speech resulting in difficulties with controlling volume of speech, pitch, rhythm etc
- Speech may be slurred, indistinct, nasal, explosive and/or monotonous for a child with dysarthria
- Speech difficulty may range from occasional/mild to being completely unclear. Errors may be affected by tiredness, posture etc. People who know the child well may understand some of what they say, but those who are unfamiliar with them will struggle
- Some children, due to brain damage, have difficulties with understanding and expressing language and/or with cognitive skills
- Some children with severe dysarthria will require alternative means of communication, for example signing or using pictures/symbols/text or an electronic communication aid

Helping to access the phonics screening check

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<tr>
<th>Possible issues</th>
<th>Ways to help</th>
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<td>It may be difficult to access the phonics screening check, depending on how clear their speech is</td>
<td>For some, an adult who understands the child’s speech will be able to recognise the child’s attempts at using and reading real words, for example, the child might consistently say, ‘ga’ for ‘cat’</td>
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<td>Children with mild dysarthria may be able to sound out and blend non-words recognisably enough for the screening test; but for many this would be very difficult</td>
<td>Alternative assessment methods may give valuable information, for example:</td>
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<td>• Indicating targets from a selection of pictures (without text). Paper-based resources can be used or software such as Clicker, Grid 2 or Communicate in Print</td>
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<td>• Reading a multiple choice list of similar words to the child who indicates when the target word is read. The list should be long enough to reduce the risk of chance; and words should be read in an even tone</td>
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<td>• A standardised assessment, such as the Pre-school and Primary Inventory of Phonological Awareness (PIPA) can be used</td>
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<td>• Assessment of initial sound knowledge should include presentations of pictures without saying the word aloud, to establish if the child can access accurate internal speech</td>
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Dysarthria may accompany other cognitive and/or linguistic problems

It may be necessary to model and practice testing procedures in advance

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You should also consider the following in your literacy work with children who have dysarthria:

Even if a child is not able to access the phonics screen it's important to establish whether the child has grapheme-phoneme correspondence and can use an alphabet sheet to indicate initial sounds. Identifying initial sounds can be a very useful communication strategy for the child with intelligibility issues.

The outcome of the check

- Some children may be able to complete the check, be scored and have resulting targets.

- It may be difficult to accurately record and score the responses for some children so it may be useful to video the assessment and to have more than one person (including a familiar adult) scoring it. It's easy to misinterpret dysarthric speech so it would very beneficial to watch again.

- If alternative methods are used, such as picture identification and/or auditory scanning, the information can be used to help with planning, and evaluating progress.

- Some children with dysarthria may find the effort involved in using their speech to decode words particularly tiring.
Responding to the outcome of the check

It's sometimes assumed that children with dysarthria do best if they learn to read mainly by acquiring a sight vocabulary. However, the child who needs alternative communication can ultimately say what they want if they can spell. Even if this is not fully achieved, the ability to enter the first two or three letters into word processing software, then to identify the target word in a prediction list, enables the child to communicate in print and with speech.

Some dysarthric children have strong auditory skills and their speech errors have little impact on their sound awareness. These children can do well in developing literacy skills, provided targets are informed by adapted evaluation and recording strategy.

Some children really need a multisensory approach; look, listen, feel. For example, feeling voice box vibration, tracing letter shapes with the hands, and learning how sounds are made. Cued Articulation may be a useful tool for highlighting sound contrasts. This helps them understand and remember how sounds look sound and feel, helping them stick.
An evidence resource to inform next steps

Research shows that dysarthria does not necessarily put children at particular risk for later literacy difficulties.\(^{45}\) However, many important phonological awareness tasks\(^{46}\) are supported by clear speech as well as children’s awareness of the clarity of their own speech sounds.

Additional resources and further support

**Publications and resources:**
- Cued Articulation and THRASS - [www.thrass.co.uk/cuedarticulation](http://www.thrass.co.uk/cuedarticulation)
- Talktools - [www.talktools.com](http://www.talktools.com)
- Nuffield Centre Dyspraxia Programme - [www.ndp3.org](http://www.ndp3.org)
- Earobics - [www.earobics.com](http://www.earobics.com)
- Clicker Phonics - [www.cricksoft.com/uk/products/content/clicker-phonics](http://www.cricksoft.com/uk/products/content/clicker-phonics)
- Clicker - [www.cricksoft.com/uk/products/tools/clicker](http://www.cricksoft.com/uk/products/tools/clicker)
- Grid 2 - [www.sensorysoftware.com/thegrid2](http://www.sensorysoftware.com/thegrid2)
- Communicate in Print - [www.widgit.com/products/inprint](http://www.widgit.com/products/inprint)
- Penfriend Word Prediction - [www.penfriend.biz](http://www.penfriend.biz)

**Organisations and websites:**
- Worster-Drought syndrome support group: Worster-Drought syndrome is a type of cerebral palsy that affects the muscles of speech, eating and drinking. It’s sometimes diagnosed quite late if the symptoms are mild - [www.wdssg.org.uk](http://www.wdssg.org.uk)
- Ace Centre North (for advice on specialist technology, including word prediction) - [www.ace-north.org.uk](http://www.ace-north.org.uk)
- Child Brain Injury Trust - [www.childbraininjurytrust.org.uk](http://www.childbraininjurytrust.org.uk)
- The Bobath Centre - [www.bobath.org.uk](http://www.bobath.org.uk)
- National Institute of Conductive Education - [www.conductive-education.org.uk](http://www.conductive-education.org.uk)

\(^{45}\) Stackhouse and Wells, 1987; Bishop and Robson, 1989
\(^{46}\) Card and Dodd, 2006
**Case Study**

Daniel is 8 and has Cerebral Palsy. His speech consists entirely of vowels. Meaningful rhythm and intonation enable people who know him well to understand Daniel most of the time, provided the context is known. When misunderstood, Daniel indicates initial letters on an alphabet board and repeats the word. This strategy usually works but some phonic errors result in frustrating ‘blind alleys.’ Daniel’s learning to record work using text-to-speech software with word prediction. He usually recognises predicted target words but the strategy fails if he mis-selects initial letters.

Daniel’s in a mainstream school and outshines some of his classmates in a number of literacy skills. He’s frustrated by the fact he sometimes makes phonic errors and can’t hear the difference.

**What helps Daniel**

Daniel’s benefiting from a heightened multi-sensory focus on phoneme discrimination and initial sound awareness. Phonological awareness is of functional importance to his communication.