



## **Developmental Verbal Dyspraxia**

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Children with developmental verbal dyspraxia have difficulty in making and co-ordinating the precise movements required for the production of clear speech, and yet there is no evidence of damage to nerves or muscles. They have difficulty in producing individual speech sounds and in sequencing sounds together in words, phrases and sentences. As a result their speech is often unintelligible even to close family members.

The speech disorder is the predominant presentation, but children with developmental verbal dyspraxia may also have oro-motor dyspraxia, affecting their ability to make and co-ordinate the movements of the larynx, lips, tongue and palate and /or generalised dyspraxia affecting gross and fine body movements.

The current favoured term in the UK is Developmental Verbal Dyspraxia (DVD), whereas in the USA, the favoured term is Childhood Apraxia of Speech (CAS).

The cause of DVD is not yet fully understood and cannot be identified in many children. However, we do know that many children have other family members who have speech, language and literacy difficulties, which suggests the condition is inherited. We also know that some children have DVD as their only problem, whereas others have it as part of another medical condition.

Speech and Language Therapists usually diagnose developmental verbal dyspraxia by referring to checklists of characteristics and identifying a symptom cluster of presenting features. To diagnose DVD, they need to identify speech characteristics/features, but will also note commonly reported co-occurring language, learning, clinical and motor characteristics. It is not possible to make a definite diagnosis of DVD in children with very few words or in very young children.

### **Characteristics of DVD identified in the literature include:**

#### Speech characteristics

- A limited range of consonant and vowel speech sounds
- Overuse of one sound (favourite articulation)
- Vowel distortions
- Inconsistent production
- Breakdown in sequencing in words, particularly as length increase
- Errors of omission and substitution – idiosyncratic substitutions may occur
- Glottal stop insertions and substitutions
- Voice difficulties affecting volume, length, pitch, quality
- Resonance difficulties affecting the overall tone of the speech

- Prosodic difficulties affecting rate, rhythm, stress, intonation
- Unintelligible speech

### **Co-occurring characteristics**

- Family history of speech, language or literacy difficulties
- Delayed language development – expressive language usually more affected than receptive language
- Delayed development of early speech skills e.g. babbling
- Feeding difficulties
- Oral dyspraxia affecting movements of the larynx, lips, tongue or palate
- Generalised developmental dyspraxia affecting fine and /or gross motor co-ordination
- Literacy difficulties affecting reading, spelling and writing
- Slow progress in therapy

Developmental verbal dyspraxia has been described as an unfolding and changing condition. The range of problems experienced "unfold" as the child progresses and more demands are placed on him. As a result, the presentation of a child with developmental verbal dyspraxia is different according to age and stage of development. Unfortunately, this complicates diagnosis.

### **Help for children with developmental verbal dyspraxia**

Children with speech difficulties should be referred to a Speech and Language Therapist (SLT) as early as possible. This can be arranged through a GP or Health Visitor or directly by contacting your local clinic or health centre. The Speech and Language Therapist will be able to assess your child, identify the presenting difficulties and advise on management.

### **Diagnosis**

Your Speech and Language Therapist will be able to advise whether a label of developmental verbal dyspraxia is appropriate to describe your child's speech difficulties or whether another descriptor is more appropriate. Diagnosis of developmental verbal dyspraxia is complex and often becomes clearer over time.

Your therapist may also prefer to describe your child's difficulties rather than assign a label eg "Tom has a severe speech disorder, characterised by typical features of developmental verbal dyspraxia", rather than "Tom has developmental verbal dyspraxia". This is advised by the RCSLT Policy Statement on DVD (2011) and is accepted practice within the speech and language therapy profession.

### **Management**

It is generally recognised that children with developmental verbal dyspraxia do not get better without help. Usually they require regular, direct therapy delivered by a Speech and Language Therapist, supported by frequent practice between the therapy sessions, at home and /or in school. This may need to continue for some years.

Your child's speech and language therapist will devise a therapy programme, to suit your child's individual needs. It is likely to include activities to help your child improve the range of sounds he can make in isolation as well as improving his use of sounds in short and longer words and gradually in phrases and sentences. Your speech and language therapist may use a range of different therapy approaches, which focus on speech production, to help your child. In addition, the therapy programme may include activities to help your child improve their attention and listening skills, their

understanding and use of language and their knowledge of the links between spoken and written sounds and words. This will be determined by the needs of your child.

Children with DVD often need help to achieve the movements required to produce speech sounds accurately. Therefore the therapy programme will often include some tactile cueing, in which the speech and language therapist helps your child to achieve appropriate lip shapes and tongue movements. There is a growing evidence base that this type of approach is effective, in helping children improve their speech production. In contrast, current professional advice (RCSLT, 2011) cautions against the use of non-speech oral exercises (NSOMEs), such as blowing and licking, which are practised in the absence of speech production. This is because there is no current evidence that the use of NSOMEs directly improves speech. Your child's speech and language therapist will be able to provide you with more information about this.

### **Communication**

Children who have unintelligible speech, such as those with DVD, frequently experience communication breakdown. Due to their speech difficulties, they are unable to get their message across effectively, using spoken language. This can lead to frustration, loss of confidence and poor self-esteem. Children with DVD often need help to develop other ways of communicating. This might involve using a picture communication book or learning to use gestures or sign language. There are also a range of computer based communication aids available. Your child's speech and language therapist will be able to advise on the most suitable support for your child.

### **Education**

Most children with DVD are able to go to their local mainstream school. However, some children may need to attend a special educational resource base, within a mainstream school or a special school, where they can receive a high level of speech and language therapy and specialist teaching.

Research has shown that children whose speech difficulties persist beyond the age of 5 ½ years are at risk of having reading and spelling difficulties. This risk is higher when there is also a family history of speech, language and literacy difficulties. Children who have DCD or generalised dyspraxia, as well as DVD, often have handwriting difficulties, in addition to reading and spelling difficulties. Children with reading, spelling and writing difficulties often need support from specialist teachers, educational psychologists and occupational therapists, in addition to speech and language therapists.

### **Progress and Prognosis**

Most children with DVD can develop clear, intelligible speech, providing they receive appropriate help and support. It is very difficult to identify the expected rate of progress for an individual child. Children with DVD find speech work difficult and progress is usually slow and takes place over a long period of time. Children with more severe difficulties and those who have additional difficulties, such as learning difficulties, are likely to progress more slowly than those with milder and isolated difficulties.

**Further information can be obtained from:**

Royal College of Speech & Language Therapists (RCSLT) Policy Statement on DVD (2011). Can be downloaded from: <http://www.ndp3.org/documents/rcslt2011dvdPolicyStatement.pdf>

Apraxia kids: [www.apraxia-kids.org](http://www.apraxia-kids.org) The website of CASANA USA support group provides information for parents and professionals on Childhood Apraxia of Speech/Developmental Verbal Dyspraxia.

Afasic: [www.afasic.org.uk](http://www.afasic.org.uk) The website of the charity Afasic, which provides support to parents and carers of children with all types of speech and language impairments and has local groups across the UK. Parents helpline: 0845 355577

The Nuffield Hearing and Speech Centre at Royal National Throat, Nose and Ear Hospital, a division of University College London Hospitals NHS Foundation Trust. This centre offers a clinical second opinion NHS service for children with a range of speech, language and hearing disorders, and is renowned for its interest in developmental verbal dyspraxia. For further information on the clinical services of the centre and/or referral guidelines, please contact: Pam Williams, Consultant Speech and Language Therapist/Team manager. Tel: 0203-456-5235 or e-mail to: [pamela.williams3@uclh.nhs.uk](mailto:pamela.williams3@uclh.nhs.uk)

Further information available from:

Dyspraxia Foundation, 8 West Alley Hitchin Herts SG5 1EG

Helpline Tel: 01462 454986

Admin Tel: 01462 455016

Fax: 01462 455052

Web: [www.dyspraxiafoundation.org.uk](http://www.dyspraxiafoundation.org.uk)

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