



NIDCD Fact Sheet | **Voice, Speech, and Language**

Developmental Language Disorder

What is developmental language disorder (DLD)?

Developmental language disorder (DLD) is a communication disorder that interferes with learning, understanding, and using language. These language difficulties are not explained by other conditions, such as hearing loss or autism, or by extenuating circumstances, such as lack of exposure to language. DLD can affect a child's speaking, listening, reading, and writing. DLD has also been called specific language impairment, language delay, or developmental dysphasia. It is one of the most common developmental disorders, affecting approximately 1 in 14 children in kindergarten. The impact of DLD persists into adulthood.

What causes DLD?

DLD is a neurodevelopmental disorder. Neurodevelopmental disorders are caused by complex interactions between genes and the environment that change brain development. The exact causes of the brain differences that lead to DLD are unknown.

Neurodevelopmental disorders tend to run in families. Children with DLD are more likely than those without DLD to have parents and siblings who have also had difficulties and delays in language development. In fact, 50 to 70 percent of children with DLD have at least one family member with the disorder. In addition, other potentially



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related neurodevelopmental disorders, such as dyslexia or autism, are more common in the family members of a child with DLD.

Learning more than one language at a time does not cause DLD. The disorder can, however, affect both multilingual children and children who speak only one language. For multilingual children, DLD will impact all languages spoken by a child. Importantly, learning multiple languages is not harmful for a child with DLD. A multilingual child with DLD will not struggle more than a child with DLD who speaks only one language.

What are the symptoms of DLD?

A child with DLD often has a history of being a late talker (reaching spoken language milestones later than peers, <https://www.nidcd.nih.gov/health/speech-and-language>). Although some late talkers eventually catch up with peers, children with DLD have persistent language difficulties.

Younger children with DLD may:

- ▶ Be late to put words together into sentences.
- ▶ Struggle to learn new words and make conversation.
- ▶ Have difficulty following directions, not because they are stubborn, but because they do not fully understand the words spoken to them.
- ▶ Make frequent grammatical errors when speaking.

Symptoms common in older children and adults with DLD include:

- ▶ Limited use of complex sentences.
- ▶ Difficulty finding the right words.
- ▶ Difficulty understanding figurative language.
- ▶ Reading problems.
- ▶ Disorganized storytelling and writing.
- ▶ Frequent grammatical and spelling errors.

Language difficulties may be misinterpreted as a behavioral issue. For example, a child who struggles with language may avoid interactions, leading others to think that the child is shy. A child may not follow directions because they don't understand the instructions, but others may interpret this as misbehavior. A child who struggles to communicate may become frustrated and act out. When a child is struggling at home or in school, it is important to determine if language difficulties may be part of the problem.

How is DLD diagnosed?

If a doctor, teacher, or parent suspects that a child has DLD, a speech-language pathologist (a professional trained to assess and treat people with speech or language problems) can evaluate the child's language skills. The type of evaluation depends on the child's age and the concerns that led to the evaluation. In general, an evaluation includes:

- ▶ Direct observation of the child.
- ▶ Interviews and questionnaires completed by parents and/or teachers.
- ▶ Assessments of the child's learning ability.
- ▶ Standardized tests of current language performance.

These tools allow the speech-language pathologist to compare the child's language skills to those of same-age peers, identify specific difficulties, and plan for potential treatment targets.

Is DLD the same thing as a learning disability?

DLD is not the same thing as a learning disability. Instead, DLD is a risk factor for learning disabilities since problems with basic language skills affect classroom performance. This means that children with DLD are more likely to be diagnosed with a learning disability than children who do not have DLD. They may struggle with translating letters into sounds for reading. Their writing skills may be weakened by grammatical errors, limited vocabulary, and problems with comprehension and organizing thoughts into coherent sentences. Difficulties with language comprehension can make mathematical word problems challenging. Some children with DLD may show signs of dyslexia. By the time they reach adulthood, people with DLD are six times more likely to be diagnosed with reading and spelling disabilities and four times more likely to be diagnosed with math disabilities than those who do not have DLD.

Is DLD a lifelong condition?

DLD is a developmental disorder, which means that its symptoms first appear in childhood. This does not mean that, as children develop, they grow out of the problem. Instead, the condition is apparent in early childhood and will likely continue, but change, as they get older.

For instance, a young child with DLD might use ungrammatical sentences in conversation, while a young adult with DLD might avoid complex sentences in conversations and struggle to produce clear, concise, well-organized, and grammatically accurate writing.

Early treatment during the preschool years can improve the skills of many children with language delays, including those with DLD. Children who enter kindergarten with significant language delays are likely to continue having problems, but they and even older children can still benefit from treatment. Many adults develop strategies for managing DLD symptoms. This can improve their daily social, family, and work lives.

What treatments are available for DLD?

Treatment services for DLD are typically provided or overseen by a licensed speech-language pathologist. Treatment may be provided in homes, schools, university programs for speech-language pathology, private clinics, or outpatient hospital settings.

Identifying and treating children with DLD early in life is ideal, but people can benefit from treatment regardless of when it begins. Treatment depends on the age and needs of the person. Starting treatment early can help young children to:

- ▶ Acquire missing elements of grammar.
- ▶ Expand their understanding and use of words.
- ▶ Develop social communication skills.

For school-age children, treatment may focus on understanding instruction in the classroom, including helping with issues such as:

- ▶ Following directions.
- ▶ Understanding the meaning of the words that teachers use.
- ▶ Organizing information.
- ▶ Improving speaking, reading, and writing skills.

Adults entering new jobs, vocational programs, or higher education may need help learning technical vocabulary or improving workplace writing skills.

What research does NIDCD support on DLD?

The National Institute on Deafness and Other Communication Disorders (NIDCD) supports a wide variety of research on the causes, symptoms, diagnosis, and treatment of DLD. For example, NIDCD funds research that seeks to understand how brain and learning patterns differ for children with DLD compared to children with typical language development. Other research focuses on understanding why socioeconomic disparities increase the risk of DLD in children from low-income families. NIDCD-supported scientists are also determining how to accurately diagnose DLD, especially in culturally diverse children who speak a variety of dialects or languages. The institute also funds research to ascertain, at a highly practical and specific level, the best ways to teach language to children with DLD, including how many times a language structure (e.g., using proper tense) should be practiced, how instructional sessions should be organized, and how often teaching should occur. NIDCD-supported programs are also researching how to coach parents or peers of children with DLD to support language growth at home or school.



National Institute on
Deafness and Other
Communication Disorders



Where can I find more information on DLD?

The NIDCD maintains an online directory of organizations providing information on the normal and disordered processes of hearing, balance, taste, smell, voice, speech, and language. Visit the NIDCD website at <https://www.nidcd.nih.gov> to search the directory.

More NIDCD fact sheets on Voice, Speech, and Language:

- ▶ Speech and Language Developmental Milestones
- ▶ Your Baby's Hearing and Communicative Development Checklist

Visit the NIDCD website at <https://www.nidcd.nih.gov> to read, print, or download fact sheets.

For more information, contact us at:

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