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Understanding and Coping with Learning Disorders

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(Texas Child Health Through Telemedicine)



What is Learning Disorder?

- A learning disorder is an information-processing problem that prevents a child from learning a skill and using it effectively. Learning disorders generally affect children of average or above average intelligence. As a result, the disorder appears as a gap between expected skills, based on age and intelligence, and academic performance.
- Common learning disorders affect a child's abilities in reading, written expression, math or nonverbal skills.



Types of LD

- **Dyspraxia** affects a child's motor skills. Motor skills help children with movement and coordination. A young child with dyspraxia may bump into things or have trouble holding a spoon or tying shoelaces. Later, a child may struggle with speech, touch, sensitivity to light, writing and typing.
- **Dyslexia** affects how a child processes language, and it can make reading and writing difficult. It can also cause problems with grammar and reading comprehension. Children may also have trouble expressing themselves verbally and putting together thoughts during conversation.
- **Dysgraphia** affects a child's writing abilities. Children with dysgraphia may have a variety of problems, including: bad handwriting, trouble with spelling, and difficulty putting thoughts down on paper.



Types of LD

- **Dyscalculia** affects a child's ability to do math. Math disorders can take many forms and have different symptoms from person to person. In young children, dyscalculia may affect learning to count and recognize numbers. As a child gets older, he or she may have trouble solving basic math problems or memorizing things like multiplication tables.
- **Auditory Processing Disorder** impacts the way the brain processes the sounds a person takes in. It is not caused by hearing impairment. Children with this disorder may have trouble: learning to read, distinguishing sounds from background noise, following spoken directions, telling the difference between similar-sounding words, and remembering things they have heard.
- **Visual Processing Disorder.** Someone with a visual processing disorder has trouble interpreting visual information. He or she may have a hard time with reading or telling the difference between two objects that look similar. Children with a visual processing disorder often have trouble with hand-eye coordination.



Symptoms of LD

The following may be signs of a learning disorder:

- Lack of enthusiasm for reading or writing
- Trouble memorizing things
- Working at a slow pace
- Trouble following directions
- Trouble staying focused on a task
- Difficulty understanding abstract ideas
- Lack of attention to detail, or too much attention to detail
- Poor social skills
- Disruptiveness



Causes of LD

Factors that might influence the development of learning disorders include:

- **Family history and genetics.** A family history of learning disorders increases the risk of a child developing a disorder.
- **Prenatal and neonatal risks.** Poor growth in the uterus (severe intrauterine growth restriction), exposure to alcohol or drugs before being born, premature birth, and very low birth weight have been linked with learning disorders.
- **Psychological trauma.** Psychological trauma or abuse in early childhood may affect brain development and increase the risk of learning disorders.
- **Physical trauma.** Head injuries or nervous system infections might play a role in the development of learning disorders.
- **Environmental exposure.** Exposure to high levels of toxins, such as lead, has been linked to an increased risk of learning disorders.



Diagnosing LD

- Learning disorders are traditionally diagnosed by conducting two tests and noticing a significant discrepancy between their scores. These tests are an intelligence (or IQ) test and a standardized achievement (reading, writing, math) test. Most children found to have a learning disorder have normal or above-normal intelligence but do not fully demonstrate that potential on achievement tests.
- When a learning disorder is not detected early, diagnosed correctly, and treated effectively, it can cause a number of other problems. These additional difficulties may be emotional, and a child can show signs of sadness, frustration, or disappointment. Behavior problems like acting out might occur.



Treatment

If your child has a learning disorder, your child's doctor or school might recommend:

- **Extra help.** A reading specialist, math tutor or other trained professional can teach your child techniques to improve his or her academic, organizational and study skills.
- **Individualized education program (IEP).** Public schools in the United States are mandated to provide an individual education program for students who meet certain criteria for a learning disorder. The IEP sets learning goals and determines strategies and services to support the child's learning in school.
- **Accommodations.** Classroom accommodations might include more time to complete assignments or tests, being seated near the teacher to promote attention, use of computer applications that support writing, including fewer math problems in assignments, or providing audio-books to supplement reading.



Treatment

- **Therapy.** Some children benefit from therapy. Occupational therapy might improve the motor skills of a child who has writing problems. A speech-language therapist can help address language skills. Behavioral or mental health therapy might help with emotional problems and coping skill development.
- **Medication.** Your child's doctor might recommend medication to manage depression or severe anxiety. Medications for attention-deficit/hyperactivity disorder may improve a child's ability to concentrate in school. As ADHD, depression, and anxiety often occur along with learning disorders.
- **Complementary and alternative medicine.** Alternative treatments, such as dietary changes, use of vitamins and dietary supplements, eye exercises, neurofeedback and use of technological devices can be effective as well.



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Questions