



# National Center *for* Learning Disabilities

*The power to hope, to learn, and to succeed*

## Dyslexia

### Learning Disabilities in Reading



### What is dyslexia?

When a person has difficulties with reading, writing, spelling and maybe even speaking, no matter how hard he or she tries, the problem could be a learning disability known as dyslexia.

Dyslexia is a life-long language processing disorder that hinders the development of oral and written language skills. Children and adults with dyslexia can be highly intelligent, however they have a neurological disorder that causes the brain to process and interpret information differently.

Since so much of what happens in a classroom is based on reading and writing, it's important to identify dyslexia as early as possible and devise strategies to help a child succeed academically.

### What are the effects of dyslexia?

Dyslexia can have different effects on different people, depending on the severity of the learning disability and the success of efforts to develop alternate learning methods. Traditionally dyslexia causes problems with reading, writing and spelling and those problems manifest themselves differently in each person. In fact, some children with dyslexia show few signs of difficulty with early reading and writing, but have more trouble with later complex language skills, such as grammar, reading comprehension, and more in-depth writing.

Dyslexia can also make it difficult for people to express themselves clearly. It can be challenging for them to use vocabulary and to structure their thoughts during conversation. Others struggle to understand when people speak to them, not because they don't hear, but because of their difficulty processing verbal information. This is particularly true with abstract thoughts and non-literal language, such as idiomatic expressions, jokes and proverbs.

Perhaps most importantly, all of these effects can have a disastrous impact on a person's self-image. Without help, children often get frustrated with learning. The stress of dealing with schoolwork often makes children with dyslexia lose the motivation to continue on and overcome the hurdles they face.

Is dyslexia common?

- According to the National Institute of Health, up to 15% of the US population has significant difficulty learning to read.
- Dyslexia occurs among people of all economic and ethnic backgrounds.
- People are born with dyslexia. Often other members of the family also have dyslexia.

### What are the warning signs?

The following are common signs of dyslexia in people of all ages, but that does not mean that a person displaying these signs necessarily has a learning disability. If a person continues to display difficulty over time in the areas outlined below, testing for dyslexia should be considered.

- Understanding that words are made up of sounds (known as phonological awareness)
- Assigning correct sounds to letters-alone and when combined to form words
- Pronouncing words properly-blending sounds into speech
- Spelling words
- Learning the alphabet, numbers, days of the week-basic sequential information
- Reading with age-appropriate speed and accuracy
- Reading comprehension
- Learning numbers facts
- Answering open-ended questions, such as math or word problems
- Organizing thoughts, time or a sequence of tasks
- Learning a foreign language

## How is dyslexia identified?

Identifying dyslexia must be done through a formal evaluation by trained professionals. The evaluation investigates a person's ability to understand and use spoken and written language and looks at specific areas of strength and weakness in the skills that are needed for reading. Family history, intellectual ability, educational background, social environment and other factors that can affect learning are also taken into account.

## Treating dyslexia

Recognizing dyslexia early in life is a key factor in how much the learning disability will affect a person's development. Unfortunately, adults with unidentified dyslexia often work in jobs below their intellectual capacity. But with help from a tutor, teacher or other trained professionals, almost all people with dyslexia can become good readers and writers. Incorporating the following strategies into the learning process can help overcome the difficulties of dyslexia:

- Early exposure to oral reading, writing, drawing and practice to encourage development of print knowledge, basic letter formation and recognition skills and linguistic awareness (the relationship between sound and meaning)
- Practice reading different kinds of texts (i.e., books, magazines, advertisements, comics)
- Multi-sensory, structured language instruction and practice using sight, sound and touch when introducing new ideas
- Modifying classroom procedures to allow for extra time to complete assignments, help with note-taking, oral testing and other means of assessment
- Using books-on-tape and assistive technology such as screen readers and voice recognition computer software
- Help with the emotional issues that arise from struggling to overcome academic difficulties.

Reading and writing are fundamental skills for daily living, however it is important to emphasize other aspects of learning and expression. Like all people, those with dyslexia enjoy activities that tap into their strengths and interests. As multi-dimensional thinkers, visual fields such as design, art, architecture, engineering and surgery, which do not emphasize language skills, may appeal to them.

