

Improving Literacy Brief

DEFINING DYSLEXIA

WHAT DYSLEXIA IS

Dyslexia affects about one in every five individuals, making it the most commonly diagnosed learning disability. [The National Institutes of Health](#) (NIH) describes dyslexia as a *brain-based learning disability that specifically impairs a person's ability to read*. Other definitions (e.g., [First Step Act - § 3635](#); [International Dyslexia Association](#); [Mayo Clinic](#)) describe dyslexia in a similar way. The reading impairments associated with dyslexia are also unexpected in that individuals with dyslexia typically demonstrate otherwise typical intellectual functioning and developmental growth. To further understand *what dyslexia is* – and what it *is not* – it may be helpful to examine the major elements of the definition.

DYSLEXIA IS BRAIN-BASED

For individuals with dyslexia, specific portions of the brain typically associated with important reading processes may not develop or function in the same ways that they do in individuals without dyslexia. Neuroimaging research suggests that individuals with dyslexia – compared to individuals without – may have fundamental differences in brain regions linked with reading and language. These differences are primarily, although not completely, noted in the left hemisphere of the brain.

- ***Dyslexia affects the brain*** areas associated with detection and processing of sounds and their corresponding letters. These letter-sound linkages are fundamental to reading. When these brain regions do not function efficiently to make these connections, reading development is affected.
- ***Dyslexia can be inherited***. Children born with the neurological impairments associated with dyslexia are more likely than other children to have family members with the impairment. Many, but not all, of these children will eventually experience reading difficulties.

DYSLEXIA IMPAIRS THE ABILITY TO READ

Individuals with dyslexia often have difficulty with phonological processing, spelling, or rapid visual-verbal responding.



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- Difficulty with phonological processing inhibits the ability to effectively decode letters into blended sounds to form words. A fundamental phonological processing problem may “block” access to other more advanced aspects of reading, such as word identification and comprehension.
- Difficulty with spelling may be recognized in an inability to efficiently write the letters comprising words from memory. Increased time needed to spell words and spelling errors may be apparent.
- Difficulty with rapid visual-verbal responding may be evident when it is increasingly difficult to quickly verbalize the letters and words appearing in print when prompted to do so.

WHAT DYSLEXIA IS NOT

Dyslexia is related to reading difficulties, not difficulties that arise from intellectual functioning.

- Dyslexia *does not* imply the individual cannot read. People with dyslexia can learn to read with evidence-based explicit instruction, but may still have to put forth more effort.
- Dyslexia *does not* otherwise impact the brain structure or functioning, or the intellectual, imaginative, or emotional functioning of the individual. In non-reading areas, abilities of those with dyslexia mirror those without dyslexia.
- Individuals with dyslexia *do not* necessarily see and write letters or words backwards. Dyslexia is associated with brain-based phonological impairments, not visual problems.

SUGGESTED CITATION

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What is Dyslexia?

Dyslexia is a brain-based learning disability that specifically impairs a person's ability to read.



Dyslexia is Brain-Based

The affected brain areas are associated with detection and processing of sounds and their corresponding letters.

Children born with the neurological impairments associated with dyslexia are more likely than other children to have family members with the impairment. Many, but not all, of these children will eventually experience reading difficulties.

Dyslexia Impairs the Ability to Read

Difficulty with phonological awareness inhibits the ability to effectively decode letters into blendable sounds to form words. A fundamental phonological processing problem may "block" access to other more advanced aspects of reading, such as word reading and comprehension.



Dispelling Myths About Dyslexia

Dyslexia does not imply the individual cannot read. People with dyslexia can learn to read with evidence-based explicit instruction, but may still have to put forth more effort.

Dyslexia does not otherwise impact the brain structure or functioning, or the intellectual, imaginative, or emotional capabilities of the individual.

Individuals with dyslexia do not necessarily see and write letters or words backwards.

For more information about dyslexia please visit ImprovingLiteracy.org



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