What is dyslexia? Dyslexia is a difficulty learning to read and/or spell despite adequate instruction and opportunity to learn. It is a type of learning disability and is sometimes referred to as a specific reading disability.

What causes dyslexia? Dyslexia is a brain-based disorder that affects language processing. Specifically, individuals with dyslexia have problems hearing, remembering, and/or thinking about the speech sounds in words. Because the letters or characters used in written language correspond to the sounds in words, individuals with dyslexia have great difficulty learning to spell and/or “sound out” words.

But doesn’t dyslexia involve seeing words backwards? The belief that individuals with dyslexia see words backwards is a myth that is promoted in the media and joked about in popular cultural. Most individuals with dyslexia do not have visual problems of any kind. As a result, glasses, colored lenses, or visual training such as eye tracking are not effective treatments for dyslexia. On occasion, individuals with dyslexia may reverse the letters in some words. This does not result from “seeing words backwards” but rather from misremembering the order of the letters in the word. Unlike typical readers who have a clear memory of the sounds in words, individuals with dyslexia cannot as easily rely on the knowledge of the way words sound to help them spell or read words.

Can parents or teachers cause a child to be dyslexic? No, poor instruction (e.g., incompetent teacher or inappropriate curriculum) and/or parental neglect (e.g., failure to read to the child) do not cause dyslexia.

Is dyslexia related to intelligence or motivation? No, lack of intelligence or motivation does not cause dyslexia. Dyslexia can be accompanied by both high and low intelligence and strong and limited motivation.

So how does one get dyslexia? The answer to this question is still incomplete. However, it is known that in many cases genes play an important role. Dyslexia runs in families, and it is not uncommon to find that multiple members of an immediate or extended family have dyslexia. Family studies of dyslexia indicate that 20% to 40% of children born to a parent with dyslexia will also be dyslexic. In addition, research shows that 30%-50% of the brothers and sisters of a child with dyslexia will themselves have dyslexia. While dyslexia is heritable, genes are not the only factor influencing its occurrence. If dyslexia was completely genetic, we would expect that identical twins (who share the same genes) would always share dyslexia if present. However, in only about 70% of affected cases are both members of an identifiable twin pair dyslexic. Clearly, other factors in the environment influence the development of dyslexia.

Do more boys than girls have dyslexia? Initially, it was thought that dyslexia occurred much more often in boys than girls. However, recent research suggests that dyslexia is only slightly more common (1.5 to 1) in boys than girls.

What are the early signs of dyslexia? Children with dyslexia often show delayed language development. They may be late to talk or have unexpected problems in grammar (e.g., me want that). They may also have problems understanding and
enjoying rhymes or in recognizing that words begin with the same sound. They may be slow to learn the letters of the alphabet and corresponding sounds. Children with dyslexia also may have unexpected problems saying common words with difficult sound patterns (e.g., animal, specific, cinnamon). They may also have difficulty remembering instructions or directions. Learning a second language can also be difficult.

**How can I tell if my child has dyslexia?** An evaluation of reading and reading-related skills by a trained professional can identify if an individual has dyslexia. Most school systems screen and test for dyslexia although they may refer to it as a learning or reading disability. Professionals outside of the schools are also available to diagnose and treat dyslexia. A list of professionals in your area is provided through the “Find a Provider” link at the website for the International Dyslexia Association, [http://www.interdys.org/index.htm](http://www.interdys.org/index.htm). Other information about dyslexia can also be obtained at this website.

**Does dyslexia only influence reading?** No, individuals with dyslexia may have problems in areas other than reading. Specifically, they may have difficulties expressing themselves in spoken as well as written formats. They may also have problems in mathematics (particularly remembering and retrieving math facts) or in learning a second language. They can also have social and/or emotional problems that are secondary to dyslexia.

**Can dyslexia be treated?** Yes, the difficulties associated with dyslexia can be addressed successfully with intervention. Most research has concerned reading/spelling intervention. While there is not single program that has been shown to be the most effective in improving the reading/spelling outcomes of individuals with dyslexia, those that have been successful involve explicit and systematic instruction in phonics and other aspects of language. Programs that include multisensory presentations are also highly valued by experienced clinicians, but have yet to be fully evaluated in controlled studies. Research also shows that intervention is most effective when begun early in the school years.

**Can a person with dyslexia be successful?** Yes, individuals with dyslexia can have very successful careers. Thomas Edison, Walt Disney, Tom Cruise, and Cher are among a long list of individuals with dyslexia who have accomplished much in their individual professions. Some have even suggested that individuals with dyslexia may have special talents that help them become more successful than those without dyslexia. While this is a popular and comforting idea for many in the field of dyslexia, it has yet to be tested appropriately in research studies. Nevertheless, with early intervention most individuals with dyslexia can be successful academically and can go on to have productive and fulfilling lives.

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