

Understanding Dyslexia

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Resource Corner

This month we're spotlighting two websites. The first is the International Dyslexia Association. This site has tons of resources and information for families and professionals. They offer parent and teacher membership, but the resources on the main page are free to all. You can find them at: dyslexiaida.org

The second website is Understood.org. This site is dedicated to helping people with learning differences feel "understood". It offers tips and resources for all sorts of learning differences like Dyslexia and ADHD. They also have a podcast called "In It" which is "a podcast on raising kids who learn and think differently."



Back in 2002, the International Dyslexia Association (IDA) started the very first Dyslexia Awareness Month. It was officially recognized by the US Congress in 2015. The official awareness ribbon color for Dyslexia is SILVER, however, on October 15th the IDA encourages everyone to "Go Red" for Dyslexia Awareness. That movement was started by Christie Aitken and her son Beau. They said that while silver is the official awareness color for Dyslexia, they chose red out of a determination to "take back the color red from being the nasty little color that plagued [Beau's] spelling papers and turn it into not only HIS color, but that of every other person with a dyslexia diagnosis. The nation will shine bright in red to celebrate our kids and the silver linings of dyslexia will shine all round these parties. Our kids ARE the silver linings of the challenges that dyslexia brings!"

Books! Books! Books!

There are a great collection of books out there about dyslexia, with dyslexic characters, or written by dyslexic authors. Some of the "go to" books on dyslexia are:

- "Overcoming Dyslexia" by Sally Shaywitz
- "The Dyslexic Advantage: Unlocking the Hidden Potential of the Dyslexic Brain" by Brock L. Eide
- "The Gift of Dyslexia" by Ronald David

Books with dyslexic characters:

- "Thank You, Mr. Faulker" by Patricia Polacco
- The *Hank Zipzer* series by Henry Winkler
- "Fish in a Tree" by Lynda Mullaly Hunt
- The *Percy Jackson* series by Rick Riordan

Dyslexic authors:

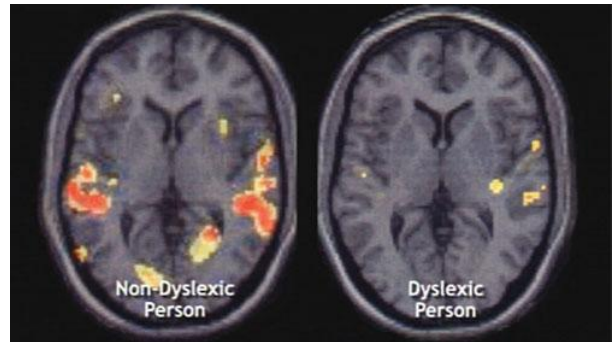
- | | |
|--------------------|---------------------|
| • Dav Pilkey | • Henry Winkler |
| • Octavia Spencer | • Ahmet Zappa |
| • Patricia Polacco | • Carmen Agra Deedy |



The Dyslexic Brain

So what exactly happens in the brain when we read? It's quite a complicated process actually. Multiple parts of the brain have to work together in order for reading to happen and have meaning. When we read, our eyes send information to our brain. Our brain has to not only recognize the shapes we see as letters, but also connect those shapes to the sound and patterns that go with those letters or combination of letters. Then it has to attach meaning to it. The visual, auditory, speech, and memory parts of our brain all work together to interpret what we see on the page.

Scientists have been able to scan the brains of typical readers and those with dyslexia and they have found some interesting things. The image to the right shows the brain scan of a non-dyslexic person (left) and a dyslexic person (right) during reading. As you can see, there are multiple areas of the brain that are activated in the non-dyslexic brain. In the brain scan of the person with dyslexia, far



Ben Foss - Stanford University

fewer areas of the brain are activated during reading. What this means is the dyslexic brain has difficulty orchestrating all the different components needed for efficient reading. The good news is researchers have shown that these processes can be taught and reading intervention can actually restructure the brain!

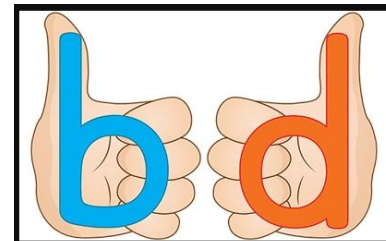
Why Does My Child Reverse Letters?

Letter reversals are the most frequent reason children are referred for dyslexia testing. Oddly enough, it's not really part of the dyslexia assessment process. It's just one piece of a much larger picture.

So, why does it happen? When we learn our letters, our brain takes all of these abstract shapes and learns that they actually have meaning. We learn to connect a name and sound with those letters, but at first they're all just shapes. Young children are very concrete thinkers. That means that they think in real, literal terms. So, when we see a chair, we know it's a chair regardless of whether it's right-side up, upside down, or on its side. It's still a chair. Its orientation does not change that. However, with letters, orientation does matter.

A "b" flipped around is a "d". Turn a "d" upside down and you have a "q". Flip a "q" and it's now a "p". Unlike the chair, the meaning changes when we change the direction of our letters.

As children are learning to write their letters, reversals are developmentally appropriate, but as a child ages, they should start to connect the ideas that direction and shape are connected for letters to have the desired meaning.



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