

# Dyslexia: How LearningRx Can Help

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## Definition

Despite what you might have heard about reversed letters, dyslexia simply means “poor with words or trouble with reading”. The word is nothing more than a way to identify a reading problem. Dyslexia does not need to be a permanent diagnosis or condition.

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## Characteristics

- Family history of reading problems
  - Predominant in males (2:1, Male: Female)
  - Average/above average IQ
  - Math proficiency not uncommon
  - No enjoyment of leisure reading
  - Poor spelling
  - Auditory language difficulties in word finding, fluency, meaning, or sequence
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## Symptoms

- Struggles pronouncing new words
  - Weak at letter sound discrimination (pin, pen)
  - Poor at distinguishing similarities/differences in words (no, on)
  - Difficulty transferring what is heard to what is seen and vice versa
  - Low reading comprehension
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## Diagnosing

LearningRx provides a professional cognitive skills evaluation using the Woodcock Johnson III Tests of Cognitive Abilities, Woodcock Johnson Tests of Achievement, and/or the Gray Oral Reading Test to pinpoint the exact cause of learning problems. The tests measure all cognitive skills including memory, processing speed, visual and auditory processing, logic and reasoning, and attention.

In people with dyslexia, the weakest cognitive skills are phonemic awareness and auditory processing, although other areas may suffer as well.

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## Treatments

Professional eye exams can first rule out or correct a vision problem.

LearningRx’s cognitive skills training attacks the root causes of dyslexia by strengthening weak cognitive skills - especially phonemic awareness and auditory processing.

Unlike tutoring, which focuses on specific academic subjects (like History), LearningRx’s cognitive skills training treats the causes of learning struggles to help children, teens and adults excel in school, sports, the workplace and extracurricular activities (like music, art and dance).

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Call today to have your child’s cognitive skills tested!

Visit [www.LearningRx.com](http://www.LearningRx.com) to find a center near you.



Students completing the LearningRx program usually see three to four years of improvement in as little as 12 to 24 weeks!! Call today to have your child’s cognitive skills tested! Visit [www.LearningRx.com](http://www.LearningRx.com) to find a center near you.

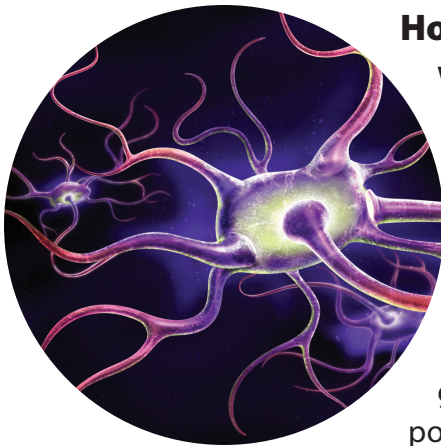
# Carnegie Mellon University Study

Study shows dyslexic brains can be permanently rewired with 100 hours of intensive cognitive skills training.

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A 2008 Carnegie Mellon University brain imaging study found that the brains of dyslexic students and other poor readers were *permanently* rewired to overcome reading deficits after 100 hours of intensive remedial instruction. This supports the work that we do at LearningRx and the PERMANENT results that we see.

Neuroscientist Marcel Just, the director for Carnegie Mellon's Center for Cognitive Brain Imaging, was the senior author of the study. In an article in the 7 August 2008 issue of Science Daily he explained that focused instruction (such as cognitive skills training) can use the plasticity of the brain (its ability to change) to gain educational improvement.



## How did the study work?

The neuroscientists used special tools to study the brain activity patterns of two groups of children: poor readers and a control group. They

found that before the intensive instruction, one particular area of the brain called the parietotemporal region was less activated among the poor readers than in the control group.

Immediately after intensive instruction, however, many of the poor readers' brain areas activated at near-normal levels with only a few areas underactive.

Perhaps most significant, after one year, the original poor readers were brought back in to be reevaluated. The results? The activation differences between good and poor readers were almost completely gone! The theory behind the results is that neural gains were strengthened over time, likely just due to the students simply engaging in more reading activities more often.

## What type of intensive training was used?

As Marcel Just summarized, "when poor readers are learning to read, a particular brain area is not performing as well as it might, and remedial instruction helps to shape that area up."

The study backs up the 20+ years of work by Dr. Ken Gibson, founder of LearningRx. Gibson created the various cognitive skills training programs for the company based on his findings related to the brain's plasticity and the ability of cognitive skills therapy to rewire the brain to create better learners.

Call LearningRx today to find out how we can help you or someone you love PERMANENTLY rewire their brain to overcome reading difficulties!