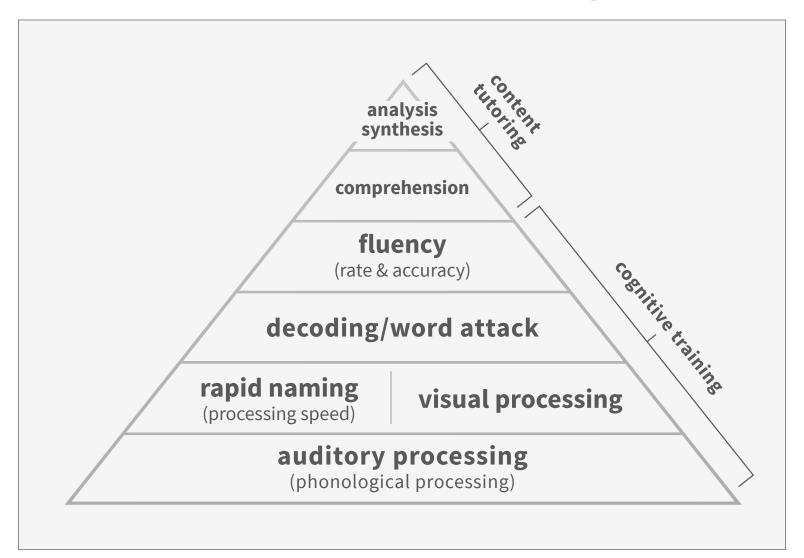


Help and Hope for Dyslexia and Reading Challenges: Treating the Root Cause

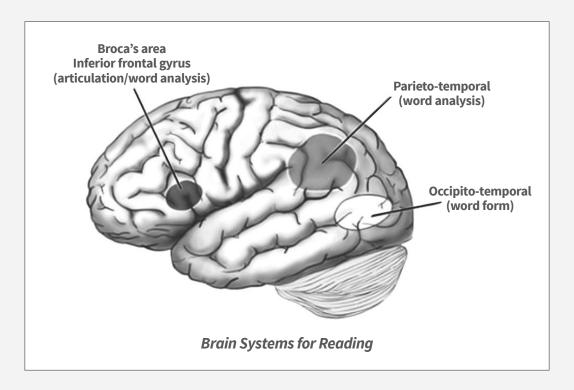
Elements of Effective Reading:



What is dyslexia?

Dyslexia: The most common type of reading problem; the problem is rooted in phonological/ auditory processing. The deficiencies are in phoneme awareness, rapid automized naming, phonological working memory, phonological blending, or phonetic decoding. This is treated by rewiring the brain in each of these key areas.

People with dyslexia still develop reading skills... just using manual systems that take a lot longer to perform.



There are three areas of the brain activated during reading. People with dyslexia overuse their Broca's area, a manual system for reading. Skilled readers' brains automatically use the posterior reading system, the two areas in the back of the brain that work as the "express highway".

Beginning readers must first analyze a word; skilled readers identify a word instantaneously. The parieto-temporal system works for the novice reader by analyzing a word, pulling it apart, and linking its letters to their sounds. Skilled readers use the occipito-temporal region, the "express pathway" to reading. The more skilled the reader, the more we see this region activated on an fMRI. This region responds in less than 150 milliseconds (less than a heartbeat!) How does this happen? After a child has been exposed to the word (word form, spelling, pronunciation, and meaning) multiple times, it stores in the occipito-temporal system, therefore making it automatic the next time it is seen.



Symptoms of Dyslexia Age Group **Toddlers and** May talk later than most children Preschoolers May have difficulty pronouncing words (busgetti for spaghetti, mawn lower for lawn mower) Difficulty rhyming Slow to add new vocabulary words Difficulty separating sounds in words and blending sounds to make words Kindergarten-Has difficulty decoding single words Slow to learn connection between letters and sounds **Grade 4** May confuse small words (at -> to, said -> and, does -> goes) Reverses letters and words Inversions (m for w, u for n) Transpositions (felt and left) • May have poor fine motor coordination Often uses awkward pencil grip May reverse letter sequences Grades 5-8 Slow to learn prefixes, suffixes, root words, and other spelling strategies May avoid reading aloud Trouble with word problems in math May avoid writing Difficulty with comprehension Read slowly with many inaccuracies **Teenagers** Spells incorrectly, spells the same word differently in a single piece of writing Avoids writing • Difficulties with foreign languages Misreads information Inadequate vocabulary Trouble answering open-ended questions on tests Trouble summarizing **Adults** Spells poorly, depends on technology Rarely reads for pleasure • Oral language difficulties persist; frequent use of ums and imprecise language, anxiety when speaking Often pronounces the names of people and places incorrectly Struggles to retrieve words, on the tip of their tongue



Are there other reading diagnoses besides dyslexia?

Hyperlexia: Students who can read words proficiently, but have difficulty comprehending. This is considered a receptive language difficulty, and is treated by improving logic and reasoning, visual processing, and memory.

Mixed/ Combined type: Difficulties in both language comprehension and word-level reading. This is treated by improving logic and reasoning, visual processing, memory, and phonological processing.

Compensator Type: Reading comprehension is well below their language comprehension due to weaknesses in word reading. They are usually overlooked because they are bright and compensate for their poor word reading. This is treated by improved by phonological processing.

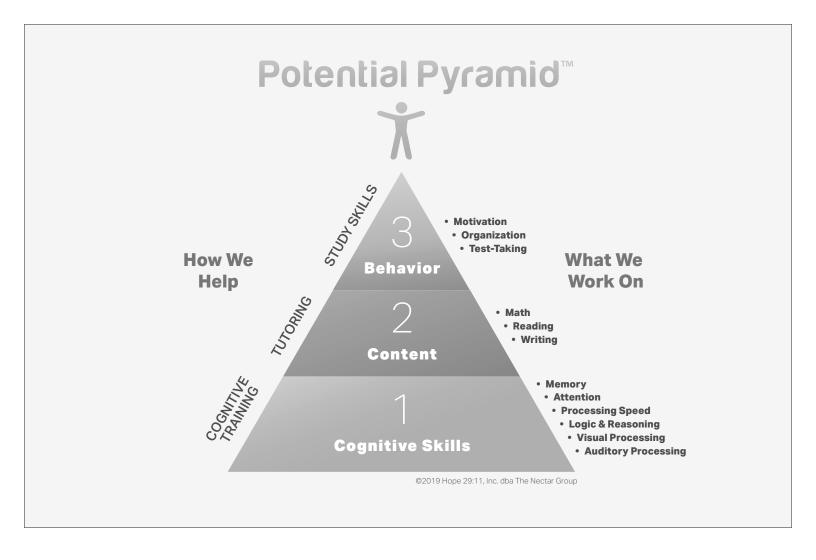
What is the most common fact in all diagnoses? Word level reading difficulties = Phonological Awareness/ Auditory Processing

Are there any other types of reading challenges?

- Fluency
- Comprehension
- Vocabulary
- Analysis (deep reading)
- · Lack of enjoyment of reading

NOTES:			





Treating dyslexia and reading challenges begins with assessing the root causes and then treating the cognitive and content deficits.

Assessment and Diagnosis Options:

- **1. Complimentary Outside Test Review:** If your child has been previously tested outside of Nectar, one of our directors will review the results and meet with you to discuss recommendations.
- **2. Comprehensive Cognitive Assessment:** This is non-diagnostic, but is a comprehensive evaluation of the underlying skills necessary for successful reading development. Can be used to rule out dyslexia, or determine if further testing is warranted.
- **3.** Psychoeducational evaluation completed with a Clinical Psychologist at The Nectar Group Will provide a diagnosis of Specific Learning Disorder, Impairment in Reading or Writing (occurring on a scale of Mild, Moderate, or Severe) as warranted. Also will provide diagnosis of any co-occuring disorders such as ADHD or math disabilities.



Treatment Options with The Nectar Group:

- 1. Cognitive skills training in combination with sound to code reading intervention:

 Corrects cognitive deficiencies that are the root cause of reading disabilities and builds the foundational mechanics of reading.
- **2. Tutoring:** Develops higher level reading skills once underlying cognitive function is strong. Teaches reading comprehension and strategies.

Resources & Activities for Home:

- Reading Reflex by Carmen McGuinness, Overcoming Dyslexia by Sally Shaywitz, M.D., Equipped for Reading Success by David A. Kilpatrick, Ph.D.
- Games that support reading and phonological processing: Big Boggle, Scrabble, Scrabble Slam Cards, Spontuneous, Zingo Sight Words, What's Gnu?, Last Letter Card Came, Pathwords
- Alternate reading with a parent
- For younger children: toothpaste, shaving/whipped cream writing, racetrack writing
- University of Florida Literacy Institute (UFLI) Foundations Program & Manual
- Scavenger Hunt Word Games, Flashlight Find, Nerf Gun Hunt
- Fluency work:
 - Improve student's knowledge of high-frequency words and sight words (make your own flashcards with fun pictures!)
 - Give students varied opportunities for hearing fluent reading and following along (parents reading, audiobooks, siblings/peers)
 - Have students reread passages to gain confidence with vocabulary and comprehension
 - Prompt, don't correct: our instinct is to provide a word they are struggling on, but instead have them break it down, blend together

