

Common Risk Factors Associated with Dyslexia and Related Services

If the following behaviors are unexpected for an individual's age, educational level, or cognitive abilities, they may be risk factors associated with dyslexia. A student with dyslexia usually exhibits several of these behaviors that persist over time and interfere with his/her learning. A family history of dyslexia may be present; in fact, recent studies reveal that the whole spectrum of reading disabilities is strongly determined by genetic predispositions (inherited aptitudes) (Olson, Keenan, Byrne, & Samuelsson, 2014).

Preschool

- Delay in learning to talk
- Difficulty with rhyming
- Difficulty pronouncing words (e.g., "pusgetti" for "spaghetti," "mawn lower" for "lawn mower")
- Poor auditory memory for nursery rhymes and chants
- Difficulty in adding new vocabulary words
- Inability to recall the right word (word retrieval)
- Trouble learning and naming letters and numbers and remembering the letters in his/ her name
- Aversion to print (e.g., doesn't enjoy following along if book is read aloud)

Kindergarten and First Grade

- Difficulty breaking words into smaller parts (syllables) (e.g., "baseball" can be pulled apart into "base" "ball" or "napkin" can be pulled apart into "nap" "kin")
- Difficulty identifying and manipulating sounds in syllables (e.g., "man" sounded out as /m/ /a~/ /n/)
- Difficulty remembering the names of letters and recalling their corresponding sounds

- Difficulty decoding single words (reading single words in isolation)
- Difficulty spelling words the way they sound (phonetically) or remembering letter sequences in very common words seen often in print (e.g., "sed" for "said")

Second Grade and Third Grade

Many of the previously described behaviors remain problematic along with the following:

- Difficulty recognizing common sight words (e.g., "to," "said," "been")
- Difficulty decoding single words
- Difficulty recalling the correct sounds for letters and letter patterns in reading
- Difficulty connecting speech sounds with appropriate letter or letter combinations and omitting letters in words for spelling (e.g., "after" spelled "eftr")
- Difficulty reading fluently (e.g., slow, inaccurate, and/or without expression)
- Difficulty decoding unfamiliar words in sentences using knowledge of phonics
- Reliance on picture clues, story theme, or guessing at words
- Difficulty with written expression

Fourth Grade through Sixth Grade

Many of the previously described behaviors remain problematic along with the following:

- Difficulty reading aloud (e.g., fear of reading aloud in front of classmates)
- Avoidance of reading (e.g., particularly for pleasure)
- Acquisition of less vocabulary due to reduced independent reading
- Use of less complicated words in writing that are easier to spell than more appropriate words (e.g., "big" instead of "enormous")

- Reliance on listening rather than reading for comprehension

Middle School and High School

Many of the previously described behaviors remain problematic along with the following:

- Difficulty with the volume of reading and written work
- Frustration with the amount of time required and energy expended for reading
- Difficulty with written assignments
- Tendency to avoid reading (particularly for pleasure)
- Difficulty learning a foreign language

Postsecondary

Some students will not be identified prior to entering college as having dyslexia. The early years of reading difficulties evolve into slow, labored reading fluency. Many students will experience extreme frustration and fatigue due to the increasing demands of reading as the result of dyslexia. In making a diagnosis for dyslexia, a student's reading history, familial/genetic predisposition, and assessment history are critical. Many of the previously described behaviors may remain problematic along with the following:

- Difficulty pronouncing names of people and places or parts of words
- Difficulty remembering names of people and places
- Difficulty with word retrieval
- Difficulty with spoken vocabulary
- Difficulty completing the reading demands for multiple course requirements
- Difficulty with note-taking
- Difficulty with written production

- Difficulty remembering sequences (e.g., mathematical and/or scientific formulas)

