

Diagnosis and Other Characteristics of Dyslexia

How Is Dyslexia Diagnosed? Are there tests for dyslexia?

The diagnosis of dyslexia usually begins with an awareness by parents or teachers that a problem in reading exists. A physician is often the first diagnostician to explore the nature of the difficulty. The medical practitioner should investigate the cause of the reading problem by conducting a complete physical examination and obtaining a comprehensive health history. If indicated, the child should be referred for a neurological examination. If dyslexia is suspected, the physician should refer the child for further evaluation and treatment by a specialist in psycho-educational diagnosis. The major purpose of the diagnostic process is to isolate the specific difficulties associated with dyslexia and to suggest appropriate educational intervention. Usually the diagnostician will employ a battery of assessment instruments that explore the relationship of specific reading problems to the intellectual, achievement, perceptual, motoric, linguistic, and adaptive capabilities of the individual. Based on the results, an intervention plan can be implemented by a special educator or remedial reading teacher trained in specialized reading techniques. (sic)

Translated into plain English, this means that you must get an "expert" to test your child to rule out all other possible explanations for his learning disability so he can then tell you what you already know--that your child has problems learning to read with conventional methods, in other words your child is dyslexic.

Editors note: Why waste your money testing for dyslexia when you already know what you need to know and that is, your child needs help in learning to read and learning to spell.

Standard explanation of what works for dyslexics: No one remedial reading method works for all reading disabled students. Therefore, it is important that the teacher have mastery of many different techniques.

Translated into plain English, this means that the experts don't really know how to teach dyslexics but they hope a teacher will use many different approaches until one that works is found. AVKO's methods (note the plural) have been successful with all the dyslexics who have come to our clinic for help.

What Are Some Of The Characteristics Of Dyslexia?

An individual is identified as dyslexic when a significant discrepancy exists between intellectual ability and reading performance without an apparent physical, emotional, or cultural cause.

Translated into plain English, this means a person may be called a dyslexic when we know that he is smart enough to be able to learn to read but we "can't" figure out why he doesn't read.

Common characteristics include, but are not limited to:

- (1) family history of reading problems;
- (2) a predominant occurrence in males (males to females 8:1);
- (3) an average or above average IQ and, not uncommonly, a proficiency in math;
- (4) no enjoyment of reading as a leisure activity;
- (5) problems of letter and word reversal;
- (6) developmental history of problems in coordination and left/right dominance;
- (7) poor visual memory for language symbols;
- (8) auditory language difficulties in word finding, fluency, meaning, or sequence;
- (9) difficulty transferring information from what is heard to what is seen and vice versa. Specific reading problems associated with dyslexia include difficulty in pronouncing new words, difficulty distinguishing similarities and differences in words (no for on), and difficulty discriminating differences in letter sound (pin, pen). Other problems may include reversal of words and letters, disorganization of word order, poor reading comprehension, and difficulty applying what has been read to social or learning situations.

What Factors Contribute To Dyslexia?

Ocular Problems

Several reliable studies (Helveston 1969; Blika 1982; Keys 1982; Hiatt 1984) have found that dyslexic individuals have no greater incidence of eye problems than do individuals with normal reading ability. Such parameters as visual acuity, stereo acuity, ocular alignment and motility, fusion status (break point amplitude), and refractive error have not been shown to be significantly different in poor versus normal readers. Individuals with reading problems should, however, have a careful eye examination as part of an overall medical examination. There is no scientific evidence that visual training (including eye muscle exercises, ocular tracking or pursuit exercises, or glasses with bifocals or prisms) leads to significant improvement in the performance of dyslexic individuals.

Translated into plain English, this means a dyslexic should have his eyes checked, but improved vision doesn't help that much in learning to read.

Language Problems

According to Mattis (1978), the primary contributing factor to dyslexia is an auditory language deficit. Approximately 86% of the individuals identified as dyslexic evidence an auditory language disorder that prevents the individual from linking the spoken form of a word with its written equivalent. In light of this, any individual with reading problems should have a careful evaluation of his or her language capabilities and where indicated, appropriate speech and language intervention should be provided.

Translated into plain English, this means hearing and speaking are related to reading.

Visuo-Spatial-Motor Problems

In contrast to language problems, visuo-spatial-motor factors of dyslexia appear less frequently (Robinson and Schwartz 1973). Approximately 5% of the individuals identified as dyslexic have a visuo-spatial-motor problem that interferes with sequential organization, scanning, and the perception of temporal and spatial cues. Although visuo-spatial-motor confusion is common in young children who are just learning to read, these problems do not tend to account for severe and persistent reading difficulties unless the child has missed so much basic reading instruction that he cannot get caught up. Assessment of visual, spatial, and motor capacities should be included in the diagnosis of any coordination or orientation disorder; however, there is no scientific evidence that interventions such as neurological and sensory organizational training, laterality training, dominance training, balance beam, or reflex inhibition will significantly accelerate reading performance.

Translated into plain English, this means that some dyslexics have problems visualizing things, problems with hand-eye coordination, muscle control, sense of time and space. This should be assessed but treatment of any of these problems won't be of much help.

Other Factors

The importance of general intelligence in learning to read has been examined and shown to be a critical factor in both reading and language abilities. Investigations of the role of dominance in handedness, eyedness, and mixed laterality have produced no consistent conclusions. Studies investigating low birth weight, EEG abnormalities, temperamental attributes, attention deficit disorders, birth order, food additives, and chemical allergies have yielded mixed results. What is clear is that a wide range of factors can be associated with reading difficulties but that these factors work differently in different children.

Translated into plain English, this means that the experts don't really know or agree about what causes dyslexia or how to treat it.

There is no simple formula for diagnosing and treating a dyslexic child. Each one requires his or her own individual program.

If you would like to find out how Don McCabe, a dyslexic himself, was enabled to read and what it was that enabled him to discover how to teach other dyslexics to read and write, see *To Teach a Dyslexic*.

A Standard Recommended Method of Testing for Dyslexia

(AVKO considers this expensive and really non-productive, but we have included it here so that you can see what it entails)

A rather extensive testing battery is completed. The cognitive portion is usually done by a psychologist. It is necessary to establish the approximate IQ to rule out mental retardation among other things. Two common tests that are used are the *Benet* and *WISC* to determine IQ. Then some type of achievement test is completed. The *Woodcock-Johnson Achievement Battery* is often used. This permits comparison of standard scores. The usual criteria are a standard deviation (15 points) between IQ and achievement or sometimes irregularities in subscores. If evidence warrants, language processing tests, figure ground discrimination type testing, and visual-motor type testing. In addition, for public school placement in an L.D. program, the place where dyslexic students are served in public schools, a social history, a medical history, a psychological evaluation, and an educational evaluation are required.

The psychological and educational evaluations are basically covered in the above testing that may be completed within the school system or by outside sources. A psychologist usually does the cognitive testing. The educational testing may be done by an educational specialist or guidance counselor. There also has to be a classroom observation and a review of all other educational data. A school social worker should do the social history. A medical doctor should do the medical examination. Then all the results are reviewed by a team that includes the parents, the school administration, the evaluators, the classroom teacher, the social worker, and a medical representative. The goal is to prove that the problem is not emotional, mental, social, or medical before educational placement can be completed.

A word of caution: Dyslexia is more complex than reading numbers backwards or reversing letters in words. We now believe that it is caused by an underlying language problem that extends throughout the area of language arts. For some, it extends into mathematics. Orton-Gillingham type reading programs are usually the most successful in working with reading problems for dyslexics. Hope that this is helpful.

The above was a posting by Julia Reynolds on the International Reading Association's Listserve:
teacher@bookmark.reading.org