

# UNDERSTANDING LEARNING DISABILITIES

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Cheryl H. Silver, Ph.D.

## I. Concepts and Definitions

**Remember** - a learning disability is not a global or generalized learning problem due to below average intelligence, or minor variability among a person's cognitive strengths and weaknesses

It is defined as a severe discrepancy between intellectual ability and academic achievement

ADHD is a separate disorder and is not a learning disability, although many children have both disorders

## II. Types and Subtypes

Reading, written language (spelling) & arithmetic are the most commonly and easily diagnosed types

Six basic domains are usually assessed:

Reading:	1. recognition of letters & words	2. reading comprehension
Writing:	3. accurate representation of letters & words	4. expression of ideas in writing
Arithmetic:	5. mechanical calculation	6. math reasoning

Equivalent medical terms: dyslexia, spelling dyspraxia, dysgraphia, dyscalculia

Both research & clinical examination support the idea that individuals with LD have underlying cognitive deficits that cause the LD (examples: perception of auditory or visual material) - these underlying deficits are at the heart of the various subtypes of LD

**Remember** - LD is a heterogeneous disorder

Auditory subtypes (the most prevalent):

approximately 60% of individuals with LD have a disorder in fundamental language-based functions

Visual subtypes (less prevalent but the most well-recognized):

perhaps 10% or fewer have visually-based LD

Mixed subtypes - individuals with mixed (combined) dysfunction may have the worst prognosis

### III. Etiologies

**Remember** - LD is a developmental disorder of the central nervous system  
The source may be genetic or related to prenatal insult

Dyslexia has been the focus of most of the research to date

- Findings:
1. Cortical anomalies (scarring & ectopias) at the cellular level  
- especially in the left posterior temporal/inferior parietal region
  2. Reduced cell size in a system in the thalamus associated with vision

### IV. Legal Protection

Children and adolescents: Individuals with Disabilities Education Act  
Adults (including college students): Americans with Disabilities Act

**Remember** - learning disabilities do not just go away

Accommodations that circumvent the disabilities must be provided in school and on the job  
to individuals who qualify