



## EARLY SIGNS OF DYSLEXIA

- Speech is processed mostly by the left hemisphere
- Some brain/language areas contain bulges
- Slow processing of eye movement and/or speech-sound
- Cause other deficits
  - Disrupts efficient phonological system
  - Rapid processing important for sequential memory
  - May change connections across auditory system
  - Decreases development of auditory processes
  - Leads to other receptive/expressive language delays
  - Irregular eye movement can affect hand-eye coordination (visual motor development)
  - Can affect focusing attention and sustaining attention
  - Can affect visual #/letter memory, speech-sound memory
- Early identification
  - Deficits at various levels of basic sensory information
  - Deficits in rapid, sequential, fine motor performance
  - Environmental sounds, scene analysis or gross motor performance is usually not impaired
- Brain structure is different in
  - VISUAL
  - AUDITORY
- Those individuals with dyslexia having visual processing difficulties are among the most significantly affected readers/writers

- Those with visual and auditory processing difficulties have trouble developing a sight vocabulary and have trouble with phonics
- Individuals having dyslexia can have average to gifted intelligence

## **EARLY SIGNS**

- Absence of cooing or babbling during first six months
- Repeated failure to make eye contact with caretakers
- Persistent difficulty with turn-taking games
- Trouble with sucking, chewing or swallowing
- Excess drooling
- Persistent difficulty imitating tongue movements
- “Strange-sounding” voice (may result from physical causes)
- Acquiring single words and phrases and then stopping speech
- No communicative use of expressive speech by age three
- “Echolalia”: repeating set phrases, such as TV commercials, instead of spontaneous speech; inappropriate repetition without intentional communication
- Extreme problem “understanding” or relating to peers in play situations
- Stuttering that is severe or that persists more than one year
- Age-inappropriate syntactic errors
- Persistent pronoun confusion after age three
- Delayed or absent asking of questions
- Use of language only to label or request things rather than to comment on activities or events in the environment
- Frequent articulation errors persisting after school age
  - Substitution of one sound for another
  - Omission of sounds
  - Sound distortion
  - Addition of inappropriate sounds
- Frequent word substitutions; difficulty retrieving familiar words

- Frequent irrelevant responses (“What do you like to do at school?” “Sally goes to my school, but we have different teachers.”)
- Persistent inability to come to the point
- Difficulty with abstract meaning of words
- Purposeful withholding of speech

## **WHAT WE CAN DO?**

1. Identify and assist as early as possible
  - Thorough evaluation and treatment
  - Medical and environmental wellness
  - Allied health (speech/language, OT, PT, Audiology)
  - Education
2. Stimulate the attention reflex
  - Slow presentation due to brain organization
  - Alter pitch, volume and tone to find the “best”
  - Present clear, simple, one-concept items
  - Present new information through student’s stronger mode and allow output in stronger mode
  - Keeps mood and attention up
  - Helps them learn
  - Enhances self-esteem
  - Help student find compensatory approaches
3. Work to improve weaker areas through direct, repetitive instruction
4. Assist memory development: Repetition, Recollection, Reflection
5. Assist expressive language
  - Use visuals to assist word find
  - Concrete experiences increase memory base
  - Verbal cues assist expressive process
  - Simple to complex
6. Compensatory skills

**OPTIMAL LEARNING REQUIRES RELAXED ALERTNESS AND THE ABILITY TO FOCUS, SUSTAIN, and SWITCH ATTENTION.**