Vision & Learning News

Welcome to Our Newsletter

This newsletter is designed to help keep you up-to-date on the latest news regarding the critical link between vision and learning. If you have any questions about anything in our newsletter, please don't hesitate to call our office.

In addition to providing vision care services for the entire family, Dr. Prazer and Dr. Massucci specialize in diagnosing and treating vision problems that interfere with reading and learning.

ACQUIRED BRAIN INJURY

According to Dr. Maria Mandese and the American Optometric Association, Acquired or Traumatic Brain Injury (TBI) is a term used to group conditions caused by a disruption in normal brain function due to blunt, penetrating, or acceleration/deceleration trauma; cerebral vascular accidents (i.e., stroke or aneurysm); whiplash injury; suffocation/hypoxia; and pharmacological toxicity.

Frequent visual symptoms associated with Traumatic Brain Injury are:

- Unexplained vision changes, such as blurred, double, or shimmering vision or visual field loss
- Photosensitivity (sensitivity to light)
- Motion hypersensitivity
- Difficulty focusing
- Headaches or eyestrain
- Dizziness/Imbalance
- Decreased visual processing speed
- Reduced ability to sustain attention on visual tasks

STATISTICS

Traumatic Brain Injury, according to Dr. Marc C. Taub, is a major cause of death and disability worldwide. The Center for Disease Control estimates that at least 2% of the United States population currently need help to perform activities of daily living due to TBI.

- 1.4 million people a year in the U.S. sustain a Traumatic Brain Injury.
- Falls are the leading cause of TBI. Rates are highest for children aged 0-4 years and adults age 75 years or older.
- Two age groups are at a higher risk for TBI, 0 to 4 years and 15 to 19 years old.
- The estimated incidence of TBI among wounded service members is at an upwards of 22%.
- 90 % of Ambulatory outpatients with mild TBI and related visual symptoms were found to have one or more eye movement dysfunctions, including difficulty with focusing, eye teaming, and convergence.
- Related visual symptoms include difficulty tracking objects, impaired visual scanning, and slowed reading.
- The New York Times states that Chronic traumatic encephalopathy, a form of TBI, has been found in six out of six former NFL players' brains analyzed for sports-related injury.

Individuals who diagnose and treat those with Traumatic/Acquired Brain Injuries are Associates and Fellows of the College of Optometrists in Vision Development. Dr. Robert Prazer, a fellow of COVD, and Dr. Maura Massucci are trained in diagnosing and treating this special population.

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SB'S STORY

When SB was nine years old, she was run over by a car while getting off the school bus. One year later, she was accidentally hit by a wooden croquet mallet. Both traumatic injuries affected the left side of her head and she was left with chronic headaches, nightmares, and a chance that her body chemistry could be affected during and following puberty. SB also had a long history of ear related issues such as infections, clogging, and a clicking sound when she swallowed, yawned, or talked.

As an adult, a myriad of unusual symptoms became a debilitating force in SB's life. She distinctly remembers the exact date that she was disabled by vertigo and loss of balance, constant nausea, disorientation, nervousness, an inability to focus, be around noise or look at anything moving or still. She could not walk anywhere by herself without falling down, tipping over or walking into things. Her extensive list of symptoms led her to an ENT who diagnosed her with Benign Paroxysmal Positional Vertigo (BPPV), an inner ear disorder.

SB's doctors explained that she had a sensory mismatch which sent mixed signals to her brain, thus confusing it and shutting it down "like a hot computer system." She would later learn, through months of visits with specialists in various areas such as ENTs, Neurologists, Balance and Vestibular Specialists, Neuro-Ophthalmologists, and finally a Behavior Optometrist that her symptoms had cascaded into a Balance Disorder, Space and Motion Disorder, Convergence Insufficiency, and Ocular Motor Dysfunction.

SB's treatment involved therapy for her balance and inner ear problems as well as various medications, but progress was slow. Her Vestibular Specialist noted that she could only perform therapy on SB's eyes because no other balance therapy would be beneficial until her visual system was functioning properly. Finally, her Neuro-Ophthalmologist diagnosed her with Convergence Insufficiency, which would concretely explain why SB's world seemed to be "moving or floating, as well as often double." It also explains why she wasn't improving with vestibular and balance therapy alone.

On September 10, 2009, SB was referred to Dr's. Prazer and Massucci, who performed a Developmental Vision Evaluation and diagnosed her with Binocular Dysfunction and Ocular Motor Dysfunction. His prescription was prism lenses and a course of vision therapy.

Vision Therapy and corrective lenses have allowed SB to look around more confidently. She is now able to walk and talk at the same time. She is able to look at a magazine without the words sliding around on the page as well as use her computer for hours at a time. She also notes that she is not falling over as much and her balance is getting better. Her husband says that he is glad to have at least half of his wife back, and SB certainly agrees.

SB is still making great strides in Vision Therapy. In her own words she states, "The continued specialized care I receive through my vision therapist in the key to my recovery."