



Collaborative Treatment for Vision After TBI

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Vision is Primary

- Human vision is a complex process that involves the coordinated efforts of both the eyes and the brain.
- We use central vision (focal) to see detail.
- We use peripheral vision (ambient) to inform us of movement or a direction we should point our eyes.
- Even if we feel like our eyes (and brain) are not giving us accurate information – we believe our eyes.

Case Study 1

56 y/o woman involved in a motor vehicle crash. She was able to walk and talk. MRI was negative. Not long after she notices symptoms of not being able to read correctly, headaches, motion sickness is much worse than normal, she can't go back to work on the computer, she is very tentative about driving.

Her eye doctor tells her that her eyes are fine, it must be her medications.

Finally she is referred to Dr. Wilson who does an evaluation and refers her to vision rehab with OT.

Evaluation

Neuro-optometric Assessment

- Eye health
- Binocular Vision
- Prism evaluation
- Function

Occupational Therapy Vision Assessment

- Goal of OT is to improve the client's level of performance in a needed ADL.
- Deficiencies in visual processing are significant to the OT Process if they interfere with occupational performance – doing the tasks that she wants and needs to do.

Evaluation Results

OD Finds:

Characteristics of Post Trauma
Vision Syndrome

Exophoria

Accommodative Insufficiency

Convergence Insufficiency

Spatial Disorientation

Poor fixations and pursuits

Unstable peripheral vision

Symptoms

Diplopia

Objects appear to move

Poor concentration and attention

OT Finds:

Pt is not able to work more than 2
hours per day

Nervous with driving

Aversion to convergence

Nausea with motion in the
periphery

Floor looks tilted

Headache with reading

Client asks

“Is this all in my head?”

Intervention

OD: Prism evaluation

Recommends/oversees Vision Rehab Therapy

OT: Address client factors of visual, vestibular, and proprioceptive functions so that client can work on performance skills of motor and praxis and sensory-perceptual skills to complete a task. We work on the underlying deficits of binocular vision to improve:

Reading

Computer use

Community mobility

Driving

Prism Lenses

Yoked prisms – for field loss

Base in, out, up or down – for spatial issues

Functional prisms – for diplopia

How do prism glasses help?

Will I always need to wear them?

Are prism glasses a crutch to visual rehabilitation?



Case Study 2

40 y/o female with a distant history of a brain tumor, resolved several years ago, recent MRI is clear.

Presents with fuzzy vision, can't work on the computer, trouble seeing the TV. Also complains of bumping into objects, "clumsy", gets nauseous watching a moving object when she is stationary.

Prism glasses and OT for pursuits and saccades made a significant difference.

Case Study 3

82 y/o male with history of CVA 4 months ago

Presents with double vision at near and far, can't work on the computer, unable to read functionally.

New glasses were prescribed with prism.

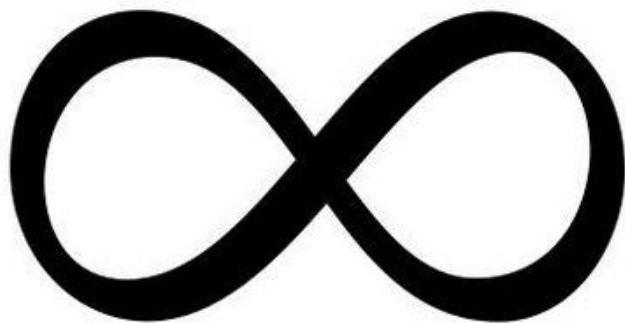
OT for convergence, scanning, and tracking made a significant difference.

Healthy Binocular Vision

Exercises to do at home:

Lazy 8 tracking

Convergence, pencil pushups



Thank You

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