



Vision rehabilitation after concussion

The role of an occupational therapist

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Objectives

- Be able to articulate the role of an occupational therapist in concussion recovery
- Be able to describe the process for referral to occupational therapy
- Be able to discuss the differences between neuro-optometry and occupational therapy in vision rehabilitation

Visual deficits

Common Deficits

- Convergence insufficiency
- Pursuits/tracking impairments
- Saccadic impairments
- Peripheral vision

Common Symptoms

- Blurred vision/Diplopia
- Difficulty reading
- Eyestrain
- Fatigue
- Nausea
- Headache
- Dizziness
- Trouble scanning
- Light sensitivity

Evaluation of Vision

- Pupillary response
- Ocular motility
- VOMS (pursuits, saccades and convergence)
- Stereopsis
- Functional scan
- Field of vision
- Peripheral vision

Evaluation of Vision

- Functional scan

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Occupational Therapy

- Eye exercises
- Modification of environment
- Pacing
- School/work accommodations for vision

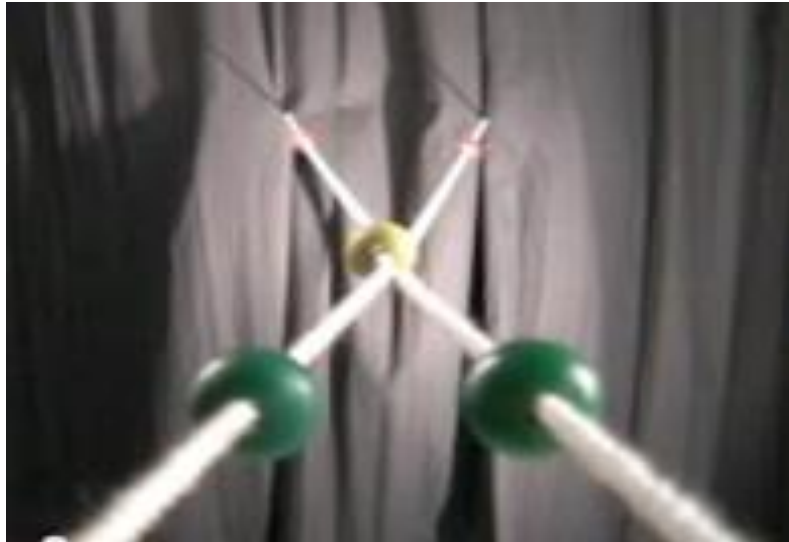
Eye Exercises

- Saccades

Column Jumps									
U	F	6	P	V	D	T	C	H	E
Y	B	A	K	O	8	Z	L	R	X
E	T	H	W	F	5	B	A	K	O
2	X	F	R	T	O	C	M	B	K
A	P	M	P	O	E	A	N	4	C
B	K	F	G	6	P	O	L	B	G
F	X	3	S	M	A	E	R	D	L
G	T	M	U	A	9	X	S	O	G
P	B	H	O	S	7	N	C	T	L
K	U	Z	L	M	Q	5	F	P	E

Eye Exercises

- Convergence Brock string



Eye Exercises

- Functional Scan

Name _____ Date _____

Find the letter _____

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AZERTYUIOPQSDFGHIJKLMWXCVBN
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FDLKD WOPURKDX YAZIUWGDHJVBL
WKPD LKUAQUTERH FVNIUDJ DASX Z
YEHDP UIDSEMDWYFZCIYQETBTER
AJLP ODFHNCSVPIMSFHXWFHMAWQ
PLGWESAFGYNVXUPKDQWUTZSDU
FACVYJDHKMETYUVSLADVQDVUIA
PQSBENPLASDNMCWYTEVHFGWUBN
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UCXZOAAJQPOHFSVCNBPRUQIALDS
PIQUXIFHSALJHBNMCXZHJQUIYILO
UQYTIQIANVBEUYADTYIWOLHDFB
VIOLGSDBJGWYQIVJAGIOBDSGQTY

Time duration _____ Number missed _____

Eye Exercises

- Peripheral Awareness



How about the function?

- Apps or games for completing with family members
- Puzzles
- Functional scanning activities
- Adding in other sensory systems
- Driving considerations

Quick Case Study

- Mid-40s, female, MVA (no LOC) in February 2019
- Referred by internal medicine doctor after no change in symptoms, referred in April 2019
- Working with PT since March for neck and back pain
- Symptoms reported at evaluation: headache, dizziness, light and sound sensitivity, difficulty with memory and concentration, pain in back, right hip and right knee. Sleeping about 5 hours per night. Headache was reported as 8/10 fronto-temporal
- Also had referral for physical therapy
- Arrived at clinic with dark sunglasses and ear plugs, holding on to walls as she walked into clinic and weaving while walking

Quick Case Study- Vision Screen

- Had progressive lenses, had been seen by optometrist within past year but not since concussion.
- Ocular motility: abnormal
- Pursuits: abnormal
- Convergence: abnormal
- Fixation: poor
- Saccades: impaired
- Stereopsis: unable to complete

Quick Case Study- Intervention

- First exercises: pursuits, saccades, convergence
- Modified monocular to binocular
- Reviewed sound sensitivity and pacing of activity
- Discussed in second session consideration for neuro-optometry with difficulty during screenings
- Prisms and occupational therapy with transition back to neuro-optometrist for vision therapy



When we refer elsewhere

- Speech Therapy
- Physical Therapy
- Psychology
- Neuro optometry



Thank You