

Prism, Prism, Prism!

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Prism, Prism, Prism! Part II: Monocular, Bi-ocular, Binocular and Yoked Prism Therapy Activity Workshop

II: Learning Objectives:

1. Understand the purpose and techniques of monocular prism training
2. Utilize bi-ocular vision training using dissociating prism
3. Understand how to build fusional vergence by using binocular prism techniques
4. Reorganize spatial and oculomotor skills by using yoked prism during therapy activities

Therapy Techniques using Prism

- 1) MONOCULAR: Understand the purpose and techniques of monocular prism training
 - a) Patch and Monocular Prism
 - i) Monocular Saccades I
 - ii) Monocular Saccades II
 - iii) Esotropia Manual: BI prism over esotropic eye
 - (1) to change posture – stretch medial rectus, activate lateral rectus
 - (2) sensory stimulation – stimulate light to fall on temporal retina of esotropic eye
 - b) Demonstration and Practice session of Monocular Saccades activities

i) BU/BD/BI/BO with 10 Δ

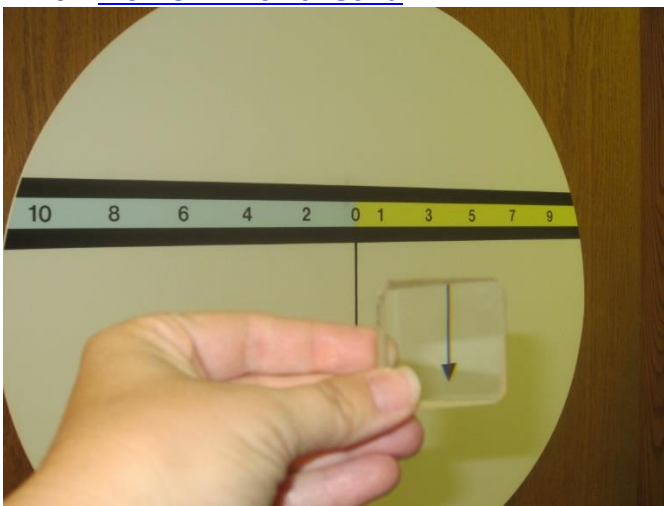
ii) BU/BD/BI/BO with 2 Δ

- (1) Direction
- (2) Amplitude
- (3) Accuracy
- (4) Field Expansion/Constriction

2. BIOCULAR: Utilize bi-ocular vision training using dissociating prism

a. Disassociating Prism– Using BU/BD or BI prism to create diplopia

b. [Howell Phoria Card](#)



Allows direct measurement of the distance and near phorias in real space. Any odd number (in yellow) shows esophoria while the even numbers (in blue) shows exophoria. An AC/A can quickly be determined with trial lenses.

c. Voluntary vergences

i. Purpose: To develop the ability to voluntarily align the eyes in free space at all distances

a. Awareness of vision perception from each eye, anti-suppression

b. Biofeedback on eye position, motor alignment accuracy and stability

2. Near: Bi-Ocular Popsicle Sticks

3. Distance: Materials: Marsden ball, vertical prism glasses (6PD base up/6PD base down)

4. Demonstration and Practice Session of Voluntary Vergences at Distance and Near

Target Creation Stations

- d. [Valenti Crossed Cylinder Rock Technique](#)
- e. [Split Prism Ring Game](#)
- f. [G-560 Biocular activity](#)
 - 1. Demonstration and Practice Session of G-560
 - 2. +2.00/-2.00, +2.00/-4.00
 - a. Size
 - b. Clarity
 - c. Distance
 - d. Alignment
 - e. Conscious Control
- g. [Squinchel](#) and R-K Diplopia
 - 1. Group practice session
 - a. Tactile Match
 - b. Auditory Match
 - c. Visual-Motor Accuracy: Golf Tee and Loop
- h. Biocular Pursuits <http://www.oepf.org/sites/default/files/22-5-FOX.pdf>



- 3. BINOCULAR: Understand how to build fusional vergence by using binocular prism techniques
 - a) [Prism Flipper Reading](#)
 - i) Base-Out

Binocular base out prisms stimulate vergence to keep the target single: Convergence

Must relax accommodation to keep accommodation at the plane of the target to achieve clear and single vision.

ii) Base-In

Binocular base in prisms relax vergence to keep the target single: Divergence

Must stimulate accommodation to keep accommodation at the plane of the target to achieve clear and single vision.



b) CUSTOM FLIPPERS

i) *Options:*

- (1) One side BI/other BO
- (2) Both sides BI, but different powers
- (3) Both sides BO, but different powers

c) [Prism Recoveries](#) or [Prism Rock](#)

i) Lollipop prism

ii) Loose prism (trial lens)

- (1) <http://innovativeeyecare.com.au/patient-resources/U4LXhwEAAC8ACeZP/Vision%20Training%20With%20Loose%20Prisms>

(2) Options:

- (a) Add and Take away
- (b) Vergence Facility: Flip BI to BO
 1. Speed
 2. Amplitude
 3. Comfort
 4. Automaticity

d) [Prism Rotations](#)

- i) Horizontal and Vertical fusion ranges
- e) [Prism Bar Training](#)
 - i) Demonstration and Group Practice with Marsden Ball
 - (1) Building fusion – Left-Right gaze
 - (2) Building fusion – Near-Far
 - (3) Building fusion ranges – Orbit – all gazes and distances
- f) [Prism Walk-Aways](#)
- g) [Prism with Stereoscope](#)
 - i) Add prism to other procedures to increase vergence skill
 - ii) <http://www.cdispatch.com/lifestyles/article.asp?aid=13084&TRID=1&TID=>

In therapy we may need to start with compensatory lenses to encourage a fusion lock and then reduce power until not needed. Can do training OVER compensatory prism with the goal of reducing amount of compensatory prism in prescription

- 4. Therapeutic Yoked Prism: Reorganize spatial and oculomotor skills by using yoked prism during therapy activities
 - a. Base-Left
 - b. Base-Right
 - c. Base-Down
 - d. Base-Up

Group demonstration and practice using yoked prism: bean bag toss

Recommended Reading:

- 1. Applied Concepts in Vision Therapy by Dr. Leonard Press (Editor) OEPP
- 2. The Vision Therapist's Toolkit by Thomas Headline, Irene Wahlmeier and Vicki Bedes OEPP
- 3. Tools of Behavioral Vision Care: Prisms (Vision Therapist Vol 37, #4, 95/96)
- 4. [The Rationale for the Use of Prism in the Vision Therapy Room](#) by Dr. Rob Fox