

**Dizziness, Disorientation, and Imbalance
Optometric Roots in ABI**

Acquired Vertical Phorias

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Etiology
Dizziness/Disorientation/Imbalance

- Vestibular
- Visual Midline Shift Syndrome and Post Trauma Vision Syndrome
- Subtle Vertical Phoria or Intermittent Tropia

Symptoms

- Vestibular
- Visual Midline Shift Syndrome and Post Trauma Vision Syndrome
- Subtle Vertical Phoria or Intermittent Tropia

The Ubiquitous Subtle CN IV Palsy

- It is everywhere.
- It is subtle
- It is noncomitant (not by the 5 pd definiton)

CN IV comes off of the brainstem in a series of delicate rootlets which are easily disrupted in whiplash or brain injury

The Ubiquitous Subtle CN IV Palsy

- CN IV palsy affects DOWNGAZE
 - It causes symptoms that are similar to those of PTVS and Visual Midline Shift Syndrome
 - Floor shifting
 - Feelings of disorientation and instability
 - Difficulty sustaining for near work

The Ubiquitous Subtle CN IV Palsy

- Testing
 - This will not be found in your phoropter
 - Only elicited in downgaze
 - Difficult to see on cover testing
 - DO A MADDOX ROD for VERTICAL Phoria ON EVERY BI PATIENT Including Mild BI

Maddox Rod Testing



Modified Thorington Testing



The Ubiquitous Subtle CN IV Palsy

- Parks 3 step method (LRL, RLR)
- Typically 1+ to 4 pd
- If it does not localize to a CN, then possible skew deviation (posterior fossa)

Skew Deviation

- Posterior fossa injury (Posterior fossa houses the cerebellum, medulla and pons)
- It may alternate
- It may cause head tilt
- It may change if you lift a lid to view—may be induced
- Brodsky, MC. (2003). Three dimensions of skew deviation. *British Journal of Ophthalmology*, 87, 1440-1441. www.bjophthalmol.com

Treatment

My suggestions only:

Remember that it varies in fields of gaze

- 3 pd or less, vision therapy
 - Orthoptics—emphasize peripheral awareness, but central fusion jumping into different fields of gaze
 - Emphasize head tilt/roll maintaining fusion during therapy
- 3-4 pd or more or impinging on primary gaze, Rx prism for primary gaze Prior to instituting therapy
- Base down yoked prism
- Reading stands
- Spot patch