

Lens and Prisms: Essential VT Tools

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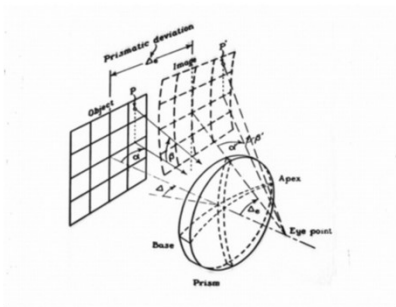
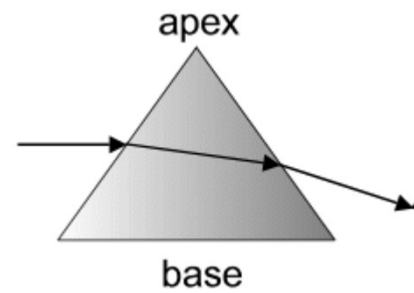
Disclosure

- I have no disclosures regarding any of the items or techniques discussed in this lecture

The Ideal Vision Training Tools

- Lenses and Prisms!
 - They alter:
 - Vergence
 - Accommodation
 - Size
 - Direction
 - Perception of space and time
 - Create mismatches/learning opportunities

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Yoked vs Dissociating Prism



Lenses – Unique to Optometry

- Use of lenses and prisms are unique to our behavioral approach to vision and vision development
- Lenses help us to control HOW a patient is approaching a specific activity
 - Ex. Use of lenses on vectograms
- Lenses and prisms create novel / learning experiences that stimulate neural changes

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Lenses – Unique to Optometry

- Many out there trying to provide vision services
- But.....
- They can't use lenses and prisms

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- John Streff, OD, DOS, FCOVD, FAAO
- •“Vision’s purpose is to guide actions, growth, understanding, and the quality of life. The sensory component of vision is to serve as a feedback mechanism to evaluate the adequacy of our actions. Vision problems should be explained in performance terms.”

VT Procedures

- Stick to your model of vision
- Allow/include changes in total visual volume
- Return to procedures frequently so patients can notice progression
- You don't need a lot of procedures to be successful
- **Try to always have VT training lenses on the patient**
- Procedures should help patient to increase their awareness of details in their visual space
- Treat the patient, not the symptom

The VT Patient Should...

- Be on his/her feet as much as possible
- Be free to move and alter posture
- Rarely wear his compensatory lenses
- Never be rushed or coerced for an answer
- Be guided with simple questions—
 - What do you see / feel / notice...
 - Big? Small? Closer? Further?
- Get better at seeing changes as they progress

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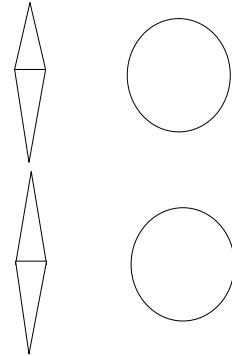


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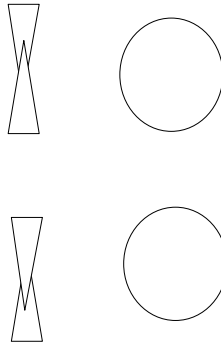
Lens Characteristics

- Low Plus lenses
 - Increase light scatter
 - Decrease light intensity
 - Expand visual space volume
 - Increase awareness of ground
 - Expands time
 - Reduces muscle tonicity
 - Increases ability to attend to detail

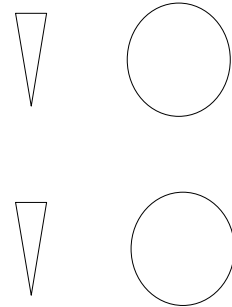
Low Plus Lenses



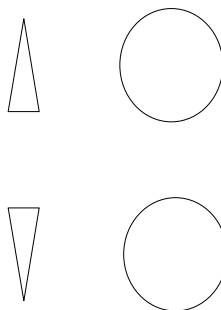
Minus Lenses



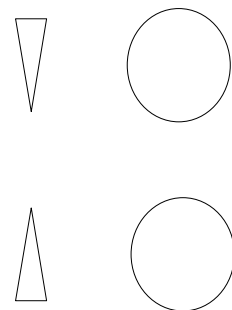
Base-Up Prisms



Base-In Prisms



Base-Out Prisms



- Minus lenses
 - Constricts light scatter
 - Increase light intensity
 - Constricts visual space volume
 - Increases muscle tonicity
 - Shortens time
 - Increases awareness of figure
 - Makes attending to detail more difficult

- Base-Down Prism
 - Displaces visual space up and out
 - Amplifies near, modulates distance
 - Shifts center of gravity forward
 - May function like a mild bifocal
 - Increases awareness of orientation information

- Base-Up Prism
 - Displaces space down and inward
 - Near is modulated, distance amplified
 - Center of gravity shifted backwards
 - May act like mild minus lens
 - Increased awareness of focal information

- Small Amounts of Base-In Prism
 - Shifts attention to ground
 - Moves things away
 - Expands visual space volume
 - Shifts muscle tonicity from upper to lower body
 - Re-directs towards ambient process

- Small Amounts of Base-Out Prism
 - Shifts attention to figure
 - Constricts visual space, moves things closer
 - Shifts tonicity from lower to upper body
 - Can act like mild minus lens

Items needed (VT on a shoestring)

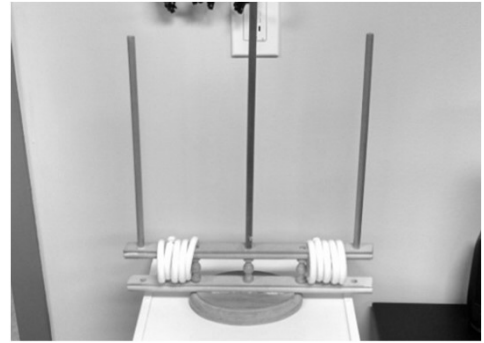
- Dowels
- 4 pair of Yoked Prism
 - Down, Up, Right, Left
 - 10 pd
- 2 pair Dissociating Prism
 - 5 pd Down/Up
 - 5 pd Up/Down
- Flat vs Curved

Prism / Lens Procedures

- Bean Bag Toss with Prisms
- Streff Candles
- Prism Walk
- Wolff Dowels
- Eye Rotations
- Loose Lens Accommodative Rock
- Window Rock

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Streff Candles



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