Fitting Peli Prisms for Hemianopia

In Office Guide

Fitting

1. Observe patient’s normal head posture and walking stance.

2. Placing the template -
   - Place the template on the eye with the temporal field defect (left hemi = left eye, right hemi = right eye).
   - Place an occluder on the opposite eye.
   - Position the red dot in the center of the template directly over the patient’s pupil. If black part of the template overlaps the frame rim, adjust the frame and re-apply template to reduce or eliminate overlap.
   - Have the patient walk around again to ensure the template has not changed their gait. If patient’s gait changed because of template, adjust placement of template accordingly.

3. Placing the prisms -
   - On the rear surface of the lens, firmly place the Peli press-on prisms, with pointed end towards temple, directly over the black portions of the template.
   - Verify that there is 12mm of separation between the prisms.
   - If prisms overlap the edge of the frame, trim off the excess.
   - Remove template

4. Final fitting -
   - Remove the marks, occluder and press any air bubbles out of the temporary prisms.
   - Record the final fitting positions and return glasses to the patient.

Y - X = Z or X + Z = Y
   \[
   \begin{align*}
   \text{Y} & = \text{Upper Height (measurement from the bottom prism to the top of the lens)} \\
   \text{X} & = \text{Lower Height (measurement from the bottom of the bottom prism to the bottom of the lens)} \\
   \text{Z} & = \text{Separation (measurement from bottom of top prism to the top of the bottom prism)}
   \end{align*}
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Download complete Pel Lens™ fitting guide at:
http://chadwickoptical.com/pfg/

Use & Training

Overview of use with the patient.

It is very important that they look between the prisms to get the benefits of the expanded visual field. Looking directly through the prism will cause double vision. This is undesirable.

Demonstrate the field expansion to the patient.

- Tell the patient to focus on your nose, and to tell you when they see your hand come into view.
- Starting from past the shoulder on the patient’s blind side, wiggle your fingers and move them in towards the patient’s nose. For horizontal prisms, the expanded field will be slightly below or above the midline. For oblique prisms, the expanded field will be along the midline.
- When the patient sees the hand, tell them to point to your hand, and then find your hand in central vision. Often times, the patient will point to your face, because that's where they see the image of your hand in their visual field.

Importance of Training & Recommended Exercises

- When first worn, peripheral prisms create a certain level of visual confusion. The patient needs to distinguish what information is in their blind field, and what information is in their seeing field. The goal of training is to minimize this confusion. A study done at Scheepens Eye Research Institute showed patients to be 95% accurate in distinguishing the confusing images after just six one-hour training sessions in their driving simulator.
- Reach and Touch Training
  - While the patient is fixating on your nose, reach your hand into the patient blind side and have patient grab at your hand as they detect it through the prism. This should be practiced at home with a loved one, or by one’s self.
  - In a vision therapy or occupational therapy setting, many doctors or therapists will set up a reach and touch program on a Sanet Vision Integrator or similar reach/touch device.
- Training Walk - Lead patient from uncluttered areas such as a hallway to progressively cluttered areas such as a waiting room filled with chairs as potential obstacles. Constantly ask patient to report his/her observations.

Reiterate that the Lenses are for Mobility. Sunglasses are for outdoor use. They’re not useful in a dimly lit restaurant. If you wear sunglasses in a dimly lit restaurant, you may come away thinking that sunglasses aren’t helpful. Similarly, peripheral prisms are helpful for mobility. They are not helpful for reading or watching TV. Make sure the patient is aware of the conditions in which the prisms will be helpful, and the conditions in which they won’t be helpful.