



THE VESTIBULAR- VISION CONNECTION



Vision plays a significant role in our ability to balance, orient ourselves in space, and process movement of things in our environment. The vestibular (inner-ear balance) system and the visual system coordinate with each other through brain pathways in order to control the eyes' ability to maintain a visual stability. This connection, known as the vestibulo-ocular reflex, has a critical role in keeping our gaze still during head motion and helping us maintain our balance.

Common Visual Dysfunctions

Nystagmus - A condition characterized by rapid, involuntary, and rhythmic oscillation of the eyes, which can move horizontally, vertically, or in a circle (rotary). The abnormal eye movement may lead to vertigo, the perception of movement/spinning, either of the self or of the environment.

Oscillopsia - During head movement, persons may experience problems focusing on an object or perceive that objects are moving from side to side or revolving around them.

Binocular Vision Dysfunction - Misalignment of the eyes (heterophoria) or difference in size or shape of images seen by each eye (aniseikonia) resulting in focusing and double and/or blurred vision.

Evaluation

A regular eye exam may not reveal the extent that the visual process is affected. Specialists who may be involved in the evaluation of visual deficits related to a vestibular disorder include:

- **Neuro-Optometrist:** An eye care professional who specializes in the diagnosis and treatment of neurological conditions adversely affecting the visual system.
- **Neuro-Ophthalmologist:** A medical doctor specializes in central nervous system causes of visual deficits.

Treatment

Treatment for balance problems related to vision is first aimed at correcting (if possible) the underlying cause of the disorder. Tailored rehabilitative therapy can be effective for reducing or resolving these symptoms.

Optometric therapies may include:

- Corrective lenses including prisms and spectacles
- Phototherapy (light therapy)
- Therapy to enhance vision and functional visual skills such as fixation, eye movement, focusing, and eye teaming ability

GET HELP

Vestibular Disorders Association: (800) 837-8428, info@vestibular.org

Neuro-Optometric Rehabilitation Association™: (949) 250-0176, info@noravisionrehab.org

This information is not intended to be a substitute for professional medical advice, diagnosis, or treatment.