



COMMON VISION PROBLEMS & SYMPTOMS FOLLOWING A CONCUSSION

Following a concussion, there is often an interruption in communication between the eyes and the brain. Studies show that at least 50 percent of Traumatic Brain Injury patients suffer from visual dysfunctions, with one such study finding a 90 percent incidence of post-trauma visual complications¹. Visual problems, however, are often overlooked during initial evaluation as symptoms may not be present until days, weeks or even longer following the incident.

A regular eye exam often does not reveal the extent that the visual process is affected from a concussive injury. Patients may be informed that their eyes appear to be healthy and they are seeing clearly, however more extensive visual processes in the brain may be affected, known as Post Trauma Vision Syndrome (PTVS). Some symptoms may only last a few seconds while others can linger for months or years.

The Concussion Legacy Foundation and the **Neuro-Optometric Rehabilitation Association™** offer information on PTVS as well as a list of professionals specially trained in the assessment and treatment of this condition.

COMMON VISION PROBLEMS & SYMPTOMS FOLLOWING A CONCUSSION:

- ✓ **Sensitivity to motion**
 - Symptoms can include discomfort and even dizziness when scrolling on a computer screen or phone, or when in busy environments such as grocery stores, social settings, or sporting events.
- ✓ **Difficulty with eye movements**
 - Eye movements are important in the reading process, as well as tracking moving objects with the eyes, like a ball being thrown.
- ✓ **Eye Pain and Headaches**
- ✓ **Dizziness and balance problems**
- ✓ **Sensitivity to light and inability to tolerate glare**
 - Recent studies have suggested that LCD screens (such as from computers or smartphone devices) can be particularly bothersome after a concussion.
- ✓ **Blurry vision**
- ✓ **Binocular vision problems**
 - **Double vision:** This can be extremely disorienting and can cause dizziness, difficulty balancing, walking, and reading.
 - **Convergence Insufficiency:** the inability to properly point the eyes at a page or screen, often causing reading-based difficulty.
 - **Depth perception problems:** judgement of where objects are in space; difficulty with eye-hand coordination.
- ✓ **Peripheral vision problems**
 - Reduced awareness of objects or people in one's peripheral vision, being easily startled by things appearing from the side, or a tendency to bump into things that were not seen

WHAT TO DO?

Visual deficits related to a traumatic brain injury should be evaluated by an optometrist who is trained in the evaluation and management of eye and vision complications of concussion. Treatment requires a multi-disciplinary effort, including vision rehabilitation as an important part of post-concussion care.

To locate an appropriately trained provider in your area, visit noravisionrehab.org.
For more concussion information and resources, visit concussionfoundation.org.



1. Ciuffreda KJ, Kapoor N, Rutner D, Suchoff IB, Han ME, Craig S. Occurrence of oculomotor dysfunctions in acquired brain injury: a retrospective analysis. *Optometry* 2007;78(4):155-61.