



VISIONandLEARNINGnews

daniel HOCK, OD, FAAO, FCOVD

Evergreen Vision and Learning Center

# An Important Message for Parents, Coaches and Athletes: Head Injuries and Eye Trauma

Dan Hock is a primary care optometrist who specializes in developmental optometry. He is a native of Evergreen who feels privileged to practice in the community in which he was raised. Please call 303.674.4143 to schedule an appointment or visit [evandlc.com](http://evandlc.com) for more information.

Sports injuries aren't just something that the pros have to deal with. While most children are able to play sports safely, there are those occasional accidents that highlight the need to take precautionary measures to protect a child's brain and eyes.

As most parents know, even with our best efforts, we can't prevent injury from the various sports our children choose to play. While parents are aware of the risk of head injury when playing football or ice hockey, many don't realize they can also occur when a

**"Even mild head trauma can have a detrimental impact on an individual."**

child collides with another player or other benign objects. Many sports, such as soccer, wrestling, softball, volleyball, basketball and even cheerleading, can result in head injuries and or concussion. But research is showing that there is potential for long-term cognitive problems if an initial head injury is not allowed to heal completely and another head injury occurs. As a matter of fact, most parents assume that if there is no loss of consciousness, then all is well. However, the most

important thing for parents to know is that someone does NOT need to lose consciousness to suffer a brain injury.

A recent study found that 85 percent of concussions go undiagnosed. Another found that nearly 63 percent of varsity soccer players had symptoms of a concussion at some point, but only about 19 percent were aware of it. Even mild head trauma can have a detrimental impact on an individual. A common misconception is that the trauma must be severe in order to cause damage, but the statistics related to 'mild' traumatic brain injury are staggering:

—It is estimated that 1.6 to 3.8 million sports-related mild traumatic brain injuries occur every year, with the vast majority being concussions.

—High School Associations report the likelihood of an athlete in a contact sport experiencing a concussion is as high as 20 percent per season.

—The frequent occurrence of head injuries increases the potential for long-term symptoms, disability and pathological changes resembling those of Parkinson's—think Mohammad Ali and dementia.

Regardless of whether a helmet is worn or not, accidents are inevitable. They can occur heading that soccer ball or colliding with an opponent; yet we can't place our kids in a bubble. The fact of the matter is, all brain

injuries result in vision problems. These vision problems result in eye movement changes after an accident and may be temporary, but they can also become permanent and devastating. When a vision problem is contributing to difficulty with reading, balance or movement, the recovery process will move very slowly until the visual component is treated. This is known as Post Trauma Vision Syndrome (PTVS), which is very treatable with vision therapy, but we need to become aware of the signs of a head injury:

- Blurred vision, especially when reading
- Headaches
- Dizziness
- Double vision
- Poor reading comprehension
- Sensitivity to light
- Loses place when reading

Up until recently, one of the biggest problems with mild head injuries was being able to determine if the injury was significant enough to pull a player out of the game. A recent study, conducted by the Mayo Clinic, shows that a test I've been using in my office for years, the King-Devick test, is an effective tool for detecting concussions right on the sidelines during a game. According to the study, "this is really the first accurate, rapid, cost-effective, removal-from-play tool that is available for concussion screening." In short, this test is revolutionizing the preventative care we can give our kids in their active and potentially brain risky endeavors. I believe this test is so vital that I include it with every child's eye exam in my office. By doing this, I can obtain that critical baseline needed so

that when an injury happens, a retest can be given, and I can compare and assess if and when returning to play is prudent.

But as we gear up for sports season, brain trauma is not my only concern; I would be remiss if I did not mention eye injuries as well. Recently, I had two similar sports-related incidents in one week! Both young ladies, ages 13 and 16, had been hit in the eye with a ball—one had been playing soccer and the other softball. The girls suffered the same injury, called hyphema, where the front (anterior chamber) of the eye fills with blood. As a result, they were vision impaired in their affected eyes for weeks. Unfortunately, both injuries could have been avoided had they been wearing sports protection eyewear. This is a very serious injury. They are now predisposed to glaucoma, a sight threatening disease, for the remainder of their lives.

People are good at taking the usual precautions when playing a given sport (helmets, mouth guards, etc.), but few take measures to protect their eyes. The regrettable part about eye injuries is that the damage can be permanent, and it is most often preventable. Unlike 'fashion' or 'dress' eyewear, protective sport eyewear is designed to shield the eyes for potentially rougher circumstances, and if needed, a prescription can be added to these sport glasses.

I am available to coaches and local teams to show them how to administer the King-Devick. It is our pleasure to offer these types of unique services, and we hope to see you in our office soon.