

## Sports-Related Eye Injuries: They're PREVENTABLE!!

During this time of the year, youngsters and adults pursue their favorite sport, (i.e. basketball, baseball, football, tennis, swimming, fishing, and more.) Despite the enjoyment and physical fitness benefits gained from these activities, each poses a risk to eye health.

More than 100,000 sports-related eye injuries are severe enough to prompt a visit to a physician or emergency room. However, over 90% of all recreation-related eye trauma is preventable. This goal can be realized with certified eye protection wear, supervised athletics with eye protection rules and public education. Unfortunately, these efforts have not eradicated eye injuries. Combative sports like boxing, wrestling, and karate inherently pose a higher risk than others like baseball, basketball, football, and hockey. Blunt force followed by projectile-related trauma account for the majority of eye injuries. In a 1992 study of eye injuries seen in emergency rooms, most occurred in the setting of basketball, baseball, racquet and pool-related sports with the remainder attributed to hunting, fishing, bicycling, football, soccer, and golf. The US Eye Injury Registry in 1995 suggested that 82% of serious eye injuries occurred without the benefit of eye protection.

Various studies demonstrate that the sport and participant's sex and age influence the nature of the eye injury. Baseball tended to be the primary cause of eye trauma in school age children with fishing and BB gun use also posing a substantial risk. If the victim was less than 10 years of age, the visual outcome was likely to be legal blindness. For the 15-24 year old group, football and basketball were most associated with eye

injuries and racquet sports for 24 years and older. Although males in general were more susceptible to eye trauma than females (4 to 1), tennis was the leading cause of eye injury in adult females. The average age of those injured was 23 years with most incidents occurring in the 10-15 years old group followed by 20-29 years.

The outcome of eye trauma can be variable ranging from temporary cosmetic disfigurement to permanent scarring, visual distortion and blindness. Abrasions and contusions are most common followed by hyphemas, glaucoma, cataract, corneal or retinal scarring, optic nerve damage or retinal detachment. Most severe eye injuries in the younger population lead to a lifetime of financial and personal burdens.

Prevention of such eye trauma begins with educating participants about the risks specific to each activity and the value of eye protection. This requires selection of appropriate protective eyewear and lens material (i.e. polycarbonate) and instruction on their proper use. Potential participants should have screening exams to identify “one eyed” individuals (i.e. visual acuity of 20/40 or worse in an eye) and those with restricted peripheral vision or a prior history of eye disease or injury. Awareness of this knowledge should be started early so as to avoid peer pressure that discourages protective eyewear as “cowardly”. Instruction must involve team physicians, trainers and support staff with emphasis on signs and symptoms of eye injuries requiring immediate referral to an eye MD. Symptoms may include constant blurred vision, loss of field of vision, sharp or throbbing pain and double vision. Signs can include black or red eye, corneal foreign body, limited eye movements, abnormal pupil size and shape, eye protrusion, blood within the eye or a cut/penetration of the lid or eye. Only by prompt recognition and intervention can serious complications be avoided.

## Health and Wellness Article

So while we pursue our favorite sport or recreational pastime, it is wise to remember the risk to vision they pose and the need to be vigilant. We should aim to minimize the incidence of sports-related eye injuries through proper education. Only then can we safely enjoy our activities!