

RACQUETBALL-RELATED EYE INJURIES

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As Americans become more health conscious, there has been a recent trend for the couch potatoes of the world to transform into the recreational athletes of neighborhood. With this increased interest in sports participation comes an increase in sports-related eye injuries. There are over 100,000 such injuries “reported” each year. About 44% of the reported injuries were to children under the age of 14. Thus, young children should be protected, as any eye injury could permanently end their future in sports.

One of the most common causes of eye injuries among children and adults are sports activities. Sports that involve the use of a ball have the most reported eye injuries. Racquet sports (e.g., racquetball, tennis, squash, badminton, etc.) account for a significant number of sport-related eye injuries. Nonetheless, the most popular sports (i.e., basketball, baseball, and football) have the most numbers of such injuries because of the larger numbers of participants in these sports. The sad part about these eye injuries is that they often result in permanent damage, and over 90% of the injuries sustained could have been prevented.

Sports-related eye injuries can produce anywhere from minimal eye damage (scratches and/or abrasions) to injuries that can result in permanent loss of vision or even the loss of the eye itself (ocular hemorrhages, retinal detachments, open globe injuries, etc). Obviously, this depends on the nature of the injury.



Subconjunctival hemorrhage
with permanent tears in the pupil
(hit by racquetball)



Internal ocular hemorrhage (hyphema)
(hit by racquetball)



Eyelid contusion with small laceration
(hit by racquet not ball)

Preventing sports-related eye injuries is actually quite simple. There are two basic tasks that need to be undertaken prior to participating in any sport. The first task is a complete “screening” eye examination that should be performed by a qualified eye care practitioner on every athlete. There are three reasons for this. First, there could be an underlying or pre-existing eye problem that could increase the athlete’s risk of injury by participating in a particular sport. Second, there could be an eye problem that could directly affect the athlete’s ability to perform in a particular sport. And third, there could be an eye problem that could be worsened by an athlete’s participation in a particular sport. If the eye exam reveals any evidence of eye problems, then certain limitations or restrictions could be placed on the athlete to prevent further harm. If you’re a monocular athlete (a person with only one eye that sees well), you should **always** wear sports eye guards and consider not participating in a sport that put your only eye at risk of injury.

The second task is to wear eye protectors, goggles, shields, or safety glasses when participating in a sport that has a risk of eye injuries. While worn, the risk of an eye injury is dramatically reduced. Many batted and racqueted balls can travel over 100 miles per hour. The delicate structures of the eye can be severely and irreversibly damaged when impacted with a ball traveling at velocities as high as that. **Protecting the eye is the key to preventing an eye injury.**

Here are some tips when choosing your eye guards.

- 1) If you wear prescription glasses, ask your eye doctor to fit you for prescription eye guards.
- 2) Buy eye guards at sports specialty stores or optical stores.
- 3) Don't buy sports eye guards without lenses. Only "lensed" protectors are recommended for sports use.
- 4) Fogging of the lenses can be a problem when you're active. Some eye guards are available with anti-fog coating. Others have side vents for additional ventilation.
- 5) Check the packaging to see if the eye protector you select has been tested for sports use. Polycarbonate eye guards are the most impact resistant.
- 6) Sports eye guards should be padded or cushioned along the brow and bridge of the nose. Padding will prevent the eye guards from cutting your skin.
- 7) Try on the eye protector to determine if it's the right size. Adjust the strap and make sure it's not too tight or too loose.



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Don't buy sports eye guards without lenses.
High velocities can compress the ball through the open guard.

If a sports-related injury does occur, the athlete should be referred to a medical facility or to an eye care professional (ophthalmologist or optometrist) immediately if they experience: 1) blurred vision that does not clear within a few minutes, 2) loss of all or part of their field of vision, 3) eye pain that does not subside in a few minutes, 4) double vision, 5) flashing lights or 6) bleeding on or inside the eye. If there is ever any doubt as to the nature of the eye injury, then the athlete should discontinue participating in the sport and should be referred immediately.

The three most important words in sports-related eye injuries are **protection, protection, and protection**. There is no excuse for not wearing an eye protector when participating in racquetball or any other high-risk sport.

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