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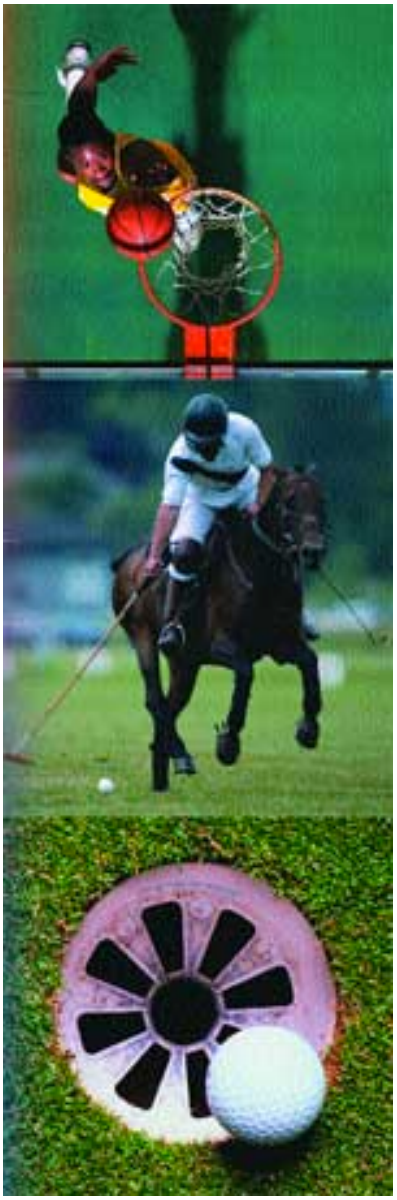
CUTTING-EDGE ADVANCEMENTS

Sports-related eye injuries can be prevented

Basketball, baseball, hockey pose the greatest risk followed by horse racing, polo, and handball

Gloves Off With Gulani by Arun C. Gulani, MD



Sports-related eye injuries occur to the tune of about 100,000 events every year. One-third of these occur in children under the age of 16. Most importantly, 90% of these injuries could have been prevented.
Any sport that involves a stick or racket, a ball or other projectile, or body contact presents a risk of serious eye injury.

Existing classification systems rank sports with their risk for eye injuries as follows:

High risk: basketball, baseball, and hockey.
Moderate risk: horse racing, polo, and handball.
Low risk: track and field, fishing, and golf.

I have suggested a modification wherein the risk level is functionally modified using the ocular status as a qualifier.

Besides patients who have had structurally weakening surgeries, an emerging population of patients is those who have had LASIK. With millions of people all over the world undergoing LASIK, I have proposed a serious look into this category of "normal eyes." They are potentially prone to flap displacement during contact/projectile sports and can have visual consequences of the same. Thus, I would recommend that these individuals safeguard their "gift of sight" with added precautions and wear protection as a modified-risk category class (per my proposed classification system).

Physicians have an obligation to warn players of potential risk and to recommend appropriate eye protection. Sports eye protection should be designed specifically for the activity or sport. Eye protection that bears the seal of sanctioned organizations should be mandated for high-risk sports.

The team physician should insist that players of sports with an eye hazard wear certified protectors. Non-team physicians should include a sports history as part of the routine examination of all patients and recommend protective eyewear appropriate for the patient's activity.

The basic steps in choosing protective gear for an eye-safety program include:

Knowing the athlete's vision and eye history.
Using only eye protectors that have been certified to national performance standards.
Having professionals assist the athlete in selecting and fitting protective eyewear.
Additional recommendationsProper fit in children is essential, because some children have narrow facial features.

Protectors with clear lenses (plano [nonprescription] or prescription) should have polycarbonate lenses, the strongest lens material available.

For sports requiring a face-mask or helmet, the helmet must fit properly and have a fastened chin strap for optimal protection.

Contact lenses offer no protection. There-fore, athletes who wear contact lenses must also wear appropriate eye protection. Regular spectacle frames also are not adequately protective and can shatter on impact.

Athletes must replace sports eye protectors that are damaged or yellowed with age, because they may have become weakened.

Functionally one-eyed athletes and those who have had an eye injury or surgery can participate in almost all sports if they use appropriate eye protection. The exceptions are boxing, for which eye protection is not practical, and full-contact martial arts, for which protection is not allowed.

Select games and toys appropriate for the child's age and responsibility level.
A three-point protocolI have proposed a three-point protocol for delineating the incidence and controlling the outcome of sports-related eye injuries.

Prevention. This can be achieved in a three- step program of education; effective role modeling with adults setting a good example for children by always wearing protective eyewear while using power tools, rotary mowers, line lawn trimmers, or hammering on metal; and strict adherence to approved equipment.

Recognition. Early recognition and high index of suspicion is a must since the seriousness of sports-related injuries may not be immediately obvious. These injuries can be devastating in terms of their spectrum of damage with pain, loss of function, and long-term disability.

Management. Finally, effective management by an ophthalmologist may involve corrective surgical intervention.

The vast majority of sports officials, administrators, and physicians are genuinely concerned about making sports as safe as possible while still maintaining fun and appeal.

In Canada, ocular trauma decreased by 90% after certified full-face protectors attached to the headgear were made mandatory in organized amateur hockey.

Thus, sports-related eye injuries are in-deed preventable, and the incorporation of the above suggested protocols will lead to a harmonious outcome. After all, isn't that what sports is all about?

References

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