USACHPPM
Readiness thru Health

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Just the Facts.. Protecting the Eye in Sports

In the past several decades, participation in sporting activities has increased significantly. The military has used a variety of sports activities to aid in physical fitness training and to stimulate competition. Increased participation in sports has been accompanied by an increase in injuries generally and to the eye in particular. Prevent Blindness America has estimated that 90% of all eye injuries are preventable including sports injuries. They indicated that 41,000 eye injuries due to sports were reported in the United States in 1991.[1] Others estimate another 70,000 to 300,000 injuries go unreported.

Protective Equipment Standards

National standards for protective eyewear exist for several sports.[2] Many sports organizations have also developed requirements to wear protective equipment for participation in their sports programs. An example of the effectiveness of a sports sponsored protective program can be found with amateur hockey. "In 1974, the Canadian Amateur Hockey Association required that all amateur players wear full face protectors. Throughout the next nine years, the average number of facial and eye injuries went from 257 the first year to zero in 1983. In 1979, the NCAA ruled that all collegiate hockey players wear certified face shields. This ruling reduced facial and eye injuries by nearly 99 percent."[3]

What Protection Is Generally Accepted For Commonly Played Sports?

Baseball	Polycarbonate faceshield (attached to helmet) in combination with sports spectacles with polycarbonate lenses worn under the faceshield for batting and running the bases. ASTM F910-86 covers eye and face protection for youth baseball players.
Basketball	Sports eyeguard with polycarbonate lenses and side shields. Frames without side shields are not recommended because of the possibility of a finger entering the open spaces in the frame and injuring the eye.
Football	Polycarbonate shield attached over a wire faceguard. Sports spectacles with polycarbonate lenses under the shield will add additional protection.
Hockey	Protectors meeting ASTM F513-95 & F1587-96 standards for eye and face protection for hockey players.
Paintball	Protectors meeting ASTM F1776-97 standards for eye protection for paintball players.
Skiing, Alpine	Protectors meeting ASTM F659-92 standards for alpine skier eye protection.
Racquet Sports	Protectors meeting ASTMF803-94 standards for racquetball, tennis, squash, etc. The Tri-Service Vision Conservation and Readiness Program does not recommend lensless protectors for racquet sports.
Soccer	Sports spectacles with polycarbonate lenses.

Players of any sport with the potential to cause eye injury should wear protective eyewear designed for that sport. Individuals with only one functional eye should wear sports spectacles with polycarbonated lenses if there is the slightest chance of eye injury.

[1]Prevent Blindness America: 1993 *Sports and Recreational Eye Injuries*. Schaumburg, IL: Prevent Blindness America; 1994.
[2]American Society for Testing and materials (ASTM), 100 Barr Harbour Drive, West Conshohoken, PA 19428, www.astm.org
[3]The First Aider, Spring 1995, Vol 65, Number 2. Cramer Products, Inc.

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