

National study shows protective eyewear reduces eye, head, and facial injuries

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A new study conducted by researchers at Hasbro Children's Hospital, the Center for Injury Research and Policy of The Research Institute at Nationwide Children's Hospital, Fairfax (VA) County Public Schools, and Boston Children's Hospital has found that high school field hockey players competing in states with mandated protective eyewear have significantly lower rates of head, eye, and facial injuries when compared to players who compete in states without protective eyewear mandates.

Each [academic year](#), an estimated 63,000 girls participate in high school-sanctioned field hockey in the United States. Head, facial, and eye injuries are common among field [hockey players](#), and, occasionally, are catastrophic. In recent years, there has been ongoing debate among coaches, players, [parents](#), rules committees, and [medical professionals](#) regarding the efficacy of [protective eyewear](#) in preventing these injuries.

The study, currently online and appearing in the December 2012 print issue of Pediatrics, examined injuries among high school field hockey players 14-18 years of age during the 2009-10 and 2010-11 scholastic seasons, just prior to the national mandate by the National Federation of State High School Associations (NFHS) requiring the use of protective eyewear for all high school field hockey players which went into effect during the 2011-12 season.

Researchers found that the rates of all head and face injuries (including [eye injuries](#) and concussion) were significantly higher in states with no protective eyewear mandate compared to states with protective eyewear

mandates. Players from states with no protective eyewear mandate were more than five times more likely to sustain an eye injury than players from states with mandated protective eyewear. In addition, a larger percentage of injuries sustained by athletes from states with no protective eyewear mandate required more than 10 days to return to activity (32 percent) compared to athletes from states with mandated protective eyewear (17 percent).

"This study adds to an accumulating body of evidence, most recently demonstrated in high school women's lacrosse, that mandated protective eyewear effectively and significantly reduces the rates of head and facial injuries in contact and collision sports," said Peter Kriz, M.D., the study's principal investigator, co-author, and sports medicine physician at Hasbro Children's Hospital. "We now have a large, national study that provides evidence that protective eyewear is indeed effective in reducing head and [facial injuries](#), including eye and orbital injuries, which validates the decisions of rules committees such as the NFHS to mandate protective eyewear use in high school field hockey and other sports."

The study showed that injuries to the eye orbits, eye globes (eyeball), eyebrows, and eyelids were virtually eliminated in the athletes competing in states that mandated protective eyewear.

"As medical professionals who work closely with athletes and coaches, and who have children ourselves who play contact and collision sports, we are very familiar, and even respectful, of the issues of culture and tradition in sport. Other sports, such as ice hockey and lacrosse, have gone through painstaking processes of balancing safety issues with sport culture and tradition with the goal of providing a safe playing environment without jeopardizing the intrinsic purity and integrity of the game," stated Kriz.

Kriz added, "Here in the Northeast, children learn to play ice hockey

with a full facemask/cage from a young age. Many of these kids go on to play field hockey in middle and [high school](#). They've adopted this protection at a young age, and they don't miss a beat when transitioning to other sports requiring facial protection. Early adoption, rather than integrating mandated protection at a later age, particularly in the setting of this study's results, appears to be the key. I think this will play out in other sports facing similar decisions regarding facial protection, such as baseball and softball."

The researchers also found that [concussion](#) rates were similar for athletes from states with mandated protective eyewear and athletes from states with no protective eyewear mandate, and that addition of protective eyewear did not result in more player-player contact injuries.

"Some people think that athletes become more aggressive when they wear additional protective equipment because they feel 'safer.' Critics fear that this increased aggression will actually lead to more injuries," said study co-author, Dawn Comstock, Ph.D., principal investigator in the Center for [Injury](#) Research and Policy at Nationwide Children's Hospital. "Our study challenges this perception. We found no increase in the rate of concussions or player-to-player contact injuries in [states](#) that mandated protective eyewear."

Provided by Lifespan

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