

Sport Concussion

Coach Education & Contact Restriction Guidelines in Youth Football

Return to Play

On June 30, 2013, MI became the 39th U.S. state to implement a law that regulates sports concussion and return to play for athletes following a concussion.

(MDHHS, Michigan Sports Concussion Law, www.michigan.gov)



The 2012 International Concussion Consensus Statement recommends a graduated return to play that was developed by experts in the field and is recognized as best practice.^d



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Data Sources:

1. Coronado VG, Haileyesus T, Cheng TA, et al. Trends in sports- and recreation-related traumatic brain injuries treated in US emergency departments: The national electronic injury surveillance system-all injury program (NEISS-AIP) 2001-2012. *J Head Trauma Rehabil.* 2015;30(3):185-197.

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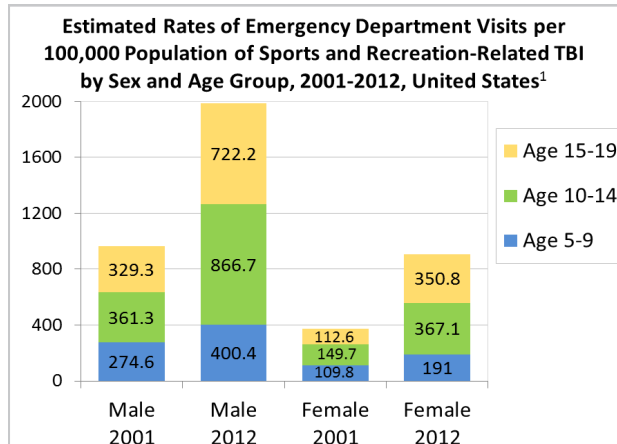
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What Is the Problem?

United States statistics:

- In 2012, there were an estimated 450,724 emergency department (ED) visits for sports and recreation-related traumatic brain injuries (TBIs), with 67.7% of TBIs occurring among children 5 to 19 years.¹
- From 2001 to 2012, the sport and recreational activity with the highest number of TBI-related ED visits for males age 10 to 19 years was football.¹



What Is One Solution?

Heads Up Football (HUF) is an education program instituted by USA Football in 2012. The aim of the program is to provide coaches with the training needed to recognize and respond to concussions, and the knowledge of proper equipment fitting, tackling and blocking techniques, heat preparedness and hydration, and sudden cardiac arrest.^a

Practice contact restriction guidelines developed by Pop Warner (PW), a national youth sports organization, were also implemented in 2012. The guidelines limit the player-to-player contact time and the type of blocking or tackling drills permitted during practice.^b

Evaluation

During the 2014 football season, an observational cohort study was conducted with 2,108 youth football players ages 5 to 15 years. Players were drawn from 100 teams from 10 leagues across four states: Arizona, Indiana, Massachusetts, and South Carolina. The purpose of the study was to compare injury rates among leagues that implemented the Heads Up Football coaching education program (HUF) and/or the Pop Warner Football (PW) guidelines to restrict contact during practice: HUF-only group, HUF+PW group, and non-Heads Up Football (NHUF) group.^c

Evidence of Effectiveness [Injury rate = all injuries (e.g., concussion, sprain, strain, fracture)]

- **Practice injury rate:** The HUF+PW group reported lower injury rates (0.97/1000 AEs) compared to the HUF-only group (2.73/1000 AEs) and the NHUF group (7.32/1000 AEs).^c
- **Game injury rate:** The HUF+PW group reported lower injury rates (3.42/1000 AEs) compared to the HUF-only group (13.76/1000 AEs) and the NHUF group (13.42/1000 AEs).^c
- **Concussion injury rate:** There was a significant difference between the practice concussion rates among 11 to 15 years old players in the HUF+PW (0.14/1000 AEs) and NHUF groups (0.79/1000 AEs).^c No other significant differences were found.

References

- a. Heads up football: Safety in action. USA Football Web site. <https://www.usafootball.com/programs/heads-up-football/>.
- b. Football PW. *Rule changes regarding practice & concussion prevention.* 2015.
- c. Kerr ZY, Yeargin S, McLeod TCV, et al. Comprehensive coach education and practice contact restriction guidelines result in lower injury rates in youth American football. *Orthopaedic journal of sports medicine.* 2015;3(7):2325967115594578.
- d. McCrory P, Meeuwisse WH, Aubry M, et al. Consensus statement on concussion in sport: The 4th international conference on concussion in sport held in Zurich, November 2012. *Br J Sports Med.* 2013;47(5):250-258.