



SOCCER CONCUSSIONS: *Did You Know?*



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1) Concussion Rates in Soccer

There have been a number of credible studies indicating the rate of concussions in soccer per 10,000 AEs.* Here are the 2 most recent:

2015 - <http://archpedi.jamanetwork.com/article.aspx?articleid=2375128>

HS Boys - 2.8/10,000 AEs

HS Girls - 4.5/10,000 AEs

2014 - <http://www.ncbi.nlm.nih.gov/pubmed/24446018>

Middle School Girls - 12/10,000 AEs

*An athletic exposure (AE) is equal to one player participating in one training session or game.

2) Younger players require more time to recover from a concussion than older players

(Field, Collins et al., "Does Age Play a Role in Recovery from Sports-Related Concussion?"

A Comparison of High School and Collegiate Athletes," Journal of Pediatrics (2003), 142(5):546-53)

3) Girls are more likely to be concussed than boys

(Fuller, Junge et al., "A Six Year Prospective Study of the Incidence and Causes of Head and Neck Injuries in International Football,"

British Journal of Sports Medicine (2005), 39(suppl1):i3-i8)

4) Most concussions in soccer are not caused by heading the ball; 70% are from normal run of play

A JAMA Pediatrics article entitled, "An Evidence-Based Discussion of Heading the Ball and Concussions in High School Soccer," available at this link:

(<http://archpedi.jamanetwork.com/article.aspx?articleid=2375128>), concluded that 25-30% of concussions occur from heading the ball. The other 70%-75% of concussions are caused by head to head, elbow to head, head to ground, head to post and other impacts to the head. "The most frequent mechanism (causing a concussion) was athlete-to-athlete contact."

The Sports Legacy Institute, in conjunction with Parents and Pros for Safer Soccer also found that approximately 30% of concussions that occur on the soccer field are related to heading the ball.

5) Concussion Among Female Middle School Soccer Players (2014 Study)

According to the 2014 JAMA Pediatrics article, (2014 Mar;168(3):258-64. doi: 10.1001/jamapediatrics.2013.4518, <http://www.ncbi.nlm.nih.gov/pubmed/24446018>), it concluded: "Concussion rates in young female soccer players are greater than those reported in older age groups, and most of those concussed report playing with symptoms."

6) In a peer-reviewed study, 62.7% of college-level soccer players had concussion symptoms in a single year

(Delaney, Lacroix et al., "Concussions Among University Football and Soccer Players," Clinical Journal of Sports Medicine (2002), 12(6):331-38)

Continued



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7) Additional Facts Pulled from Existing Studies by Third Party

In a recently published journal of 'Brain Injury', Dr. Tom Schweizer, Director of the Neuroscience Research Program at St. Michael's Hospital in Toronto, examined how often concussions occur in soccer:

- One study revealed that nearly 63 percent of varsity soccer players had symptoms of a concussion at some point, but only about 19 percent knew it.
- In another study, nearly 82 percent of players who had at least one concussion had two or more of these head injuries.
- The research found that those who suffered one concussion had a 3.15 times greater chance of having another one than players who never had this type of injury.
- A separate study also revealed that soccer-related concussions accounted for 15 percent of all sports concussions. Girls' soccer was second only to football for sports-related concussions per 10,000 AEs, accounting for 8.2 percent of these head injuries, the study found.

8) 2015 - Internal Field Study, Unequal Halo™**

Unequal reduces concussion risk. In the fall of 2015 Unequal gathered season-long data from 61 teams to assess the benefits of the Halo on the pitch.

Details

- 4 women's college teams, 57 youth teams.
- Youth teams were made up of 23 boys and 34 girls teams ranging from U-10 to U-18.
- Players wore the 6mm Halo.
- Coaches and/or trainers of each team reported weekly the number of AEs of players wearing the Unequal Halo.*
- There were 20,867 AEs. (Boys - 7,625 AEs; Girls - 13,242 AEs)
- Any incident that was potentially a concussion was evaluated and confirmed by a medical professional before being reported.
- This was a limited study among just these teams for this season only.

Concussion Rate: Boys: 0 concussions: 0.0/10,000 AEs
Girls: 2 concussions: 1.6/10,000 AEs

Regardless of any broad study to which these Unequal Halo numbers are compared, where *no* head protection was worn (see item #1), the results are significant. For girls, looking at just the two studies in Section (1), the drop is anywhere from 64% to 87%... HALO protection vs. NO protection.

*An athletic exposure (AE) is equal to one player participating in one training session or game.

**DISCLAIMER: Unequal reduces concussion risk, compared to no head protection. Leading medical doctors, PhD's and scientists have concluded that a reduction in acceleration correlates with a reduction in concussion risk. Any player in any activity, game, or sport, can sustain a head injury even with head protection, and that no helmet, pad or Unequal product can prevent concussions or eliminate the risk of these injuries. See full product warning at unequal.com