

#### **Hard Facts About Concussions in Soccer**

(No headgear can protect from all foreseeable impacts)

## The NFHS Sports-Related Injury Surveillance study of 2012-2013 indicated 101,586 concussions for the year.

National High School Sports-Related Injury Surveillance Study 2012/2013. http://www.nationwidechildrens.org/cirp-rio

## Concussions are the second most-frequent injuries in women's soccer claiming 33.4% of all reported injuries

The National Federation of High School Associations (2012/2013)

### "[T]he risk of concussion was 2.65 times higher for players who were not protected."

Al-Kashmiti, Delaney, et al "The Effect of Protec- tive Headgear on Head Injuries and Concussions in Adolescent Football (Soccer) Players," British Journal of Sports Medicine (2007). http://bjsm.bmj.com/content/early/2007/07/05/bjsm.2007.037689.abstract

#### The concussion rate in soccer is similar to that in American football

Baroff, "Is Heading a Soccer Ball Injurious to Brain Function?" Journal of Head Trauma Rehabilitation (1998), 13(2):45-52. http://journals.lww.com/headtraumarehab/Abstract/1998/04000/ls\_Heading\_a\_Soccer\_Ball\_Injurious\_to\_Brain.7.aspx

#### "Head to head impacts posed high concussion risk"

Withnall, Shewchenko et al., "Effectiveness of Headgear in Soccer," British Journal of Sports Medicine (2005), 39(supp1):i40-i48. http://bjsm.bmj.com/content/39/suppl\_1/i40.full

## 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. http://www.ncbi.nlm.nih.gov/pubmed/12466687

#### After the first concussion, the risk of a second one increases by a factor of four

Gerberich, Priest et al., "Concussion Incidences and Severity in Secondary School Varsity Football Players," American Journal of Public Health (1973), 73:1370-75. http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.73.12.1370

## Subsequent concussions are usually more serious than the first one, even if the impacts are similar

Collins, Lovell et al., "Cumulative Effects of Concussion in High School Athletes," Neurosurgery (2002), 51(5):1175-81. http://journals.lww.com/neurosurgery/Abstract/2002/11000/Cumulative\_Effects\_of\_Concussion\_in\_High\_School.11.aspx

# Second Impact Syndrome (rapid swelling of the brain, potentially catastrophic outcome) may occur if the head is impacted before the brain has recovered from a concussion

Cantu, "Recurrent Athletic Head Injury: Risks and When to Retire," Clinics in Sports Medicine (2003), 22(3):593-603. http://www.sportsmed.theclinics.com/article/S0278-5919(02)00095-9/fulltext

#### Concussions in soccer are not commonly caused by heading the ball

Boden, Kirkendall et al, "Concussion Incidence in Elite College Soccer Players," American Journal of Sports Medicine (1998), 26:238-41. http://ajs.sagepub.com/content/26/2/238.short

#### All 50 States and the District of Columbia now have concussion laws.

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