

AAP Statement on Tackling in Youth Football

Nailah Coleman, MD, FAAP, FACSM
ncoleman@childrensnational.org

What's the big deal?



Photo obtained 2/24/2016 from
www.gazettenet.com

Objectives

- review current information on injuries in football
- review relationships of tackling to football injuries
- review potential effects of limiting or delaying tackling on injury risk
- photo of downed player or player on stretcher



Photo obtained 2/24/2016 from
<https://www.youtube.com/watch?v=0RC4sPcmp>
[NI](#)

Background

- ~ 1.5 million child and adolescent athletes play American football each year
- increased public concern and medical investigation about American football injuries
 - head and neck injuries
 - long-term morbidity
 - concern for CTE

Injuries in Youth Football

- Common football injuries: contusions, sprains, strains
- Common football injury locations: knees, ankles, hands, back
- Football head and neck injuries = 5-13%
- Increased severity of injuries in football, compared to other sports (ex. head and neck injuries, such as quadriplegia, concussion, second impact syndrome, CTE; dislocations, fractures)
- Increased severity of injuries in higher levels of football play

Tackling Injuries in Youth Football

- More injuries arise from tackling than non-tackling mechanisms, in general
- About 50% of high school and college football injuries are associated with tackling (instigator or recipient)
- Research also demonstrates a higher likelihood of higher impact hits and more hits during higher levels of play (college v. high school v. youth, games v. contact practices v. non-contact practices)

Tackling Injuries in Youth Football

- Most cases of severe head and neck injuries also occur with tackling
- Most concussions are also associated with tackling
- Brain injury-related fatalities (mostly subdural hemorrhage) = 69% football injury fatalities
- Catastrophic c-spine injuries are also associated with tackling, usually with poor technique (esp. Spearing, which was banned in 1976)

Strategies for Injury Reduction

- Decrease contact practices
- Delay tackling until a certain age
- Teach proper tackling technique
- Neck muscle strengthening
- Rule changes
- Protective equipment

Decreased Tackling Occurrences

- Decrease contact practices
 - Decrease total number of hits per season by decreasing exposures
 - Might not decrease number of concussions (higher incidence during games for older players)
 - Might allow for increased magnitude of injury
 - Might decrease incidence of CTE
 - Would require increased focus on proper technique
- Delay tackling until a certain age
 - Concern for increased risk of injury, when tackling is introduced (older, larger, higher forces)

Training

- Teach proper tackling technique
 - Head up, use shoulder
- Neck muscle strengthening
 - Help with technique
 - Weakness may be associated with increased risk of concussion
 - Speculated as reason for decreased likelihood of concussion with anticipated hits

Game Changes

- Rule changes
 - No spearing
 - Continual update and enforcement are key
- Protective equipment
 - Helmet - prevent catastrophic head and brain injuries
 - Mouth guards - prevent dental injuries
 - Neck rolls - not found to be helpful and may affect ability to keep the head up
 - No equipment definitively associated with a decreased incidence of concussion

Conclusions

- Most football injuries are minor
- More severe injuries are associated with football, particularly with player-to-player contact, poor or illegal technique, and a higher level of play

Recommendations

- Review and enforce the rules...always
- Discontinue tackling altogether
- Increase availability of on-tackling football leagues (for those who want to continue to play without the tackling risks)
- Research other ways to decrease impacts to the head
- Teach proper tackling technique, as well as the best way to avoid and to absorb a hit
- Neck muscle strengthening
- ATC's on the sidelines for practices and games

"Though no one can go back and make a brand-new start, anyone can start from now and make a brand new ending."

--Carl Bard