

WHAT SPORTS PROGRAMS
NEED TO KNOW ABOUT

BRAIN SAFETY AND YOUTH FOOTBALL



Football has the highest number of sports-related concussions and other traumatic brain injuries among youth.¹

SOME PLAYS AND POSITIONS ON A FOOTBALL TEAM MAY PUT ATHLETES AT INCREASED RISK FOR CONCUSSIONS.²

63%

63% of concussions in high school football result from **tackling**.²



WHAT IS A CONCUSSION?

A **concussion** is a type of **traumatic brain injury** caused by a bump, blow, or jolt to the head, or by a hit to the body that causes the head and brain to move quickly back and forth. This fast movement can cause the brain to bounce around or twist in the skull, creating chemical changes and sometimes stretching and damaging brain cells.



What is a repetitive head impact?

A head impact is a bump, blow, or jolt to the head. A collision while playing sports is one way an athlete can get a head impact. When an athlete gets more than one head impact while playing a sport, it is called **repetitive head impact exposure**.

Do repetitive head impacts pose a health risk to my athletes?

While we know head impacts put an athlete at risk for concussion, more research is needed to understand if experiencing repetitive head impacts is harmful and how they may or may not affect the brain of a young athlete.



WILL A HELMET PROTECT MY ATHLETES FROM A CONCUSSION?

A properly fitted football helmet can help protect your athletes from the most serious types of brain or head injury, though helmets are not currently designed to prevent concussions. Make sure your tackle football athletes wear a helmet that fits well and is in good condition.

PROPERLY FITTED HELMETS:

- Feel snug, leaving no spaces between the pads and the athlete's head.
- Won't slide on the head with the chin strap in place.
- Cannot be removed while the chin strap is in place.

Learn more and download the helmet fit app at [cdc.gov/HEADSUP](https://www.cdc.gov/HEADSUP).



HOW CAN I KEEP MY ATHLETES SAFE?

Offer non-contact or flag football programs, especially for children ages 14 and younger.

A CDC STUDY COMPARING YOUTH TACKLE AND FLAG FOOTBALL FOUND:³

15x

Tackle athletes had **15 times** more head impacts during a practice or game.

23x

Tackle athletes had **23 times** more high-magnitude (hard) head impacts during a practice or game.

WAYS TO PROMOTE SAFER FOOTBALL PROGRAMS



OFFER A FOOTBALL PROGRAM THAT PROTECTS YOUNG ATHLETES

Limit contact during practices.

- Reduce full-speed, head-on blocking or tackling drills where players line up more than three yards apart.
- Spend more time demonstrating minimal contact techniques instead of scrimmaging and conducting full-speed drills.

Make an effort to have certified athletic trainers available at games and practices.

Enforce rules for fair play, safety, and sportsmanship.

Discourage behaviors that can increase the chance of getting a concussion or other serious injury, such as:⁴

- Hitting another athlete in the head.
- Using a helmet to collide with another athlete's head or body.
- Trying to injure or put another athlete at risk for injury.

¹ Sarmiento K, Thomas KE, Daugherty J, et al. Emergency Department Visits for Sports- and Recreation-Related Traumatic Brain Injuries Among Children - United States, 2010-2016. *MMWR Morb Mortal Wkly Rep* 2019;68:237-42.

² Marar M, McIvain NM, Fields SK, Comstock RD. Epidemiology of concussions among United States high school athletes in 20 sports. *The American journal of sports medicine* 2012;40:747-55.

³ Waltzman D, Sarmiento K, Devine O, et al. Head Impact Exposures Among Youth Tackle and Flag American Football Athletes. *Sports Health*. 2021; doi: 10.1177/1941738121992324.

⁴ Collins CL, Fields SK, Comstock RD. When the rules of the game are broken: what proportion of high school sports-related injuries are related to illegal activity? *Injury prevention* 2008;14:34-8





[CDC.GOV/HEADSUP](https://www.cdc.gov/headsup)

