Football, one of the most popular sports in the United States, is also the leading cause of sports-related injuries. During the 2005-06 season, high school football players sustained more than half a million injuries nationally. A study conducted by researchers in the Center for Injury Research and Policy (CIRP) at Columbus Children’s Hospital, is the first to compare injuries among high school and collegiate football players using a nationally representative sample.

According to the study, published in the August 2007 issue of *The American Journal of Sports Medicine*, four out of every 1,000 high school football exposures resulted in an injury, while eight out of every 1,000 collegiate football exposures resulted in an injury. Although National Collegiate Athletic Association (NCAA) football players were twice as likely to sustain an injury as high school football players, high school football players sustained a greater proportion of season-ending injuries, fractures and concussions compared to collegiate football players.

“While football does have a high rate of injuries, injuries don’t have to be just part of the game,” said Christy Collins, MA, research associate in CIRP at Children’s Hospital and co-author of the study. “There are ways to reduce the number and severity of football injuries through targeted interventions. Because we observed high levels of ankle and knee injuries, we recommend increased conditioning of ankles and knees and rule changes aimed at protecting these vulnerable body sites. As most of the injuries to these regions were due to ligament sprains, targeted stretching exercises may also be beneficial.”

Running plays were the leading cause of injury in both high school
and collegiate football, and in high school they accounted for the majority of season-ending injuries and concussions. Positions with the greatest risk of injury were running backs and linebackers.

Dawn Comstock, PhD, CIRP principal investigator, faculty member at Ohio State University College of Medicine and co-author of the study, suggested, “Additional instruction on appropriate tackling and blocking techniques as well as position-specific conditioning may help reduce the risk of injury during running plays.”

“Further research is required to identify those players most likely to be injured and examine what types of targeted efforts might prevent those injuries,” said Collins. “Also, there is a need for further analysis in the difference between high school and collegiate-level athletes and why high school players had greater proportions of the more severe injuries.”

Data for the study were collected from the 2005-06 U.S. High School Sports-Related Injury Surveillance Study and the 2005-06 NCAA Injury Surveillance System. Collected from this data were the injuries from 100 high school football teams and 55 NCAA football teams.

Close Read
What advice does the article give on reducing the number of injuries to high school football players? Cite text evidence in your response.
Head injuries among football players are rising and the after-effects are more serious than previously thought.

Is football just too dangerous?

Owen Thomas started playing football when he was 9 years old. From the beginning, he enjoyed the rough-and-tumble of the game.

“He loved to go into practice and hit really hard,” recalls his mother, Kathy Brearley.

Over time, those hits added up and appear to have taken a terrible toll. In April, Thomas—a junior at the University of Pennsylvania and a lineman on its football team—took his own life. The autopsy showed that his brain was in the early stages of chronic traumatic encephalopathy, more commonly known as C.T.E.

C.T.E. is a head-trauma-induced disease linked to depression, impulse-control problems, memory loss, and dementia. More than 20 deceased N.F.L. players have been found to have had C.T.E.

But its discovery in a 21-year-old who had never even been diagnosed with a concussion raises big questions about the dangers of football, especially for the 1.4 million high school students and 3 million younger kids who play.

If this debilitating brain disease can be caused by repeated hits to the head that don’t rise to the level of a concussion—an intrinsic part of football at every level—is it even possible to make the game safe? In general, there’s an increasing awareness about the dangers of concussions—especially for younger players whose brains are still developing.
‘Brain Damage, Pure and Simple’

Because football’s gladiator culture encourages playing through pain and taking a hit for the team, many teens don’t want to risk being put on the sidelines by telling their coaches when they think they might have a concussion.

Concussions are more dangerous for teenagers because, studies show, their brain tissue is less developed than adults’ and more easily damaged. High school players also typically receive less expert medical care than college or pro players, or none at all.

There’s also the question of helmets. Many young players use old safety gear that’s been passed down long past its prime. And even new helmets are designed to prevent only skull fractures, not concussions.

So what can be done to make football safer? Improving helmet technology is a good place to start. Better still, doctors say, coaches need to do a better job of making sure any player with a head injury stays off the field long enough for the injury to fully heal.

But medical experts say the most important change is to reduce the overall number of hits to the head—in practice as well as in games. Football is probably the most practice-intensive team sport—one recent study found that a college football player participates in an average of 12 practices for every game played—and players often sustain hits during practice.

“We can, and we must, develop brain trauma guidelines similar to the pitch-count regulations now used in Little League Baseball,” says Dr. Robert Cantu, a professor of neurosurgery at Boston University. “We count the pitches of every baseball player to ensure a small number do not develop shoulder and elbow problems—and yet we don’t count how often children get hit in the head playing football.”

In an effort to prevent some of the more harmful hits, the N.F.L. has started to crack down on players who violate existing rules against unnecessary or intentional hits, fining them and threatening to suspend them. The N.F.L. is also considering ways to change the frequency and structure of its practices to reduce head trauma. Those who love the game are hopeful that all these changes will make a difference.

“I definitely think the game can be made safer,” says Michael Oriard, a former N.F.L. player who has written several books about the game. “But can it be made safe enough? I’m not so sure.”

Discuss and Decide

Which solution is the N.F.L. considering to prevent harmful injuries? Would this help high school players?
Concussions and their long-term effects on NFL players have raised concerns about the effects that head injuries may have on teen players. There is evidence that younger athletes, whose brains are still developing, may be even more vulnerable to brain injuries than adult athletes. However, there are many new changes already put in motion in the youth game that will ensure that the dangers of head injuries and other significant injuries keep the game safe for our youth.

Many of the changes in youth football come from the recommendations of sports medicine experts. Mark Lovell, who founded the University of Pittsburgh Medical Center’s Sports Medicine Concussion Program, recommends several changes to limit concussions:

1. Have doctors and trainers on the field who understand the injury.
2. Use standardized concussion tests to determine if an injured player is ready to return.
3. Ease injured athletes back into play gradually.
4. Monitor injured players long term.

Although there is no national body that oversees youth football, Pop Warner—which is similar in its position in youth sports to the Little League baseball—had 250,000 young football players aged 5–16 in 2010. A 1998 study showed that the incidence of injuries, and particularly serious injuries among Pop Warner football is low—significantly lower than football players at the college and professional levels.
Part of the safety program that Pop Warner oversees is a schema for competition that has athletes playing against other athletes of similar age and size. This minimizes situations where larger athletes inflict punishing blows on smaller ones. Players are also taught not to use their helmets to make a tackle.

Pop Warner had also enacted rule changes in 2012 to prevent concussions. Coaches are being directed away from the old-school idea that practice should include a great deal of contact.

The rule changes include ones that limit contact in practices:

1. No full-speed head-on blocking or tackling drills in practice, and no intentional head-to-head contact.
2. The amount of contact at each practice is limited to 1/3 of practice time.

In addition, any head or neck injury to a player requires a doctor’s note for the athlete to return to play. Pop Warner has also set limits on how long a player can stay in a game. The organization is pondering a future requirement for annual brain scans for athletes to identify young athletes who may be at risk for brain injuries.

There are other safety measures that make an important difference. Modern equipment that provides greater protection for college level players, is also available for younger players. Training methods that involve sustained conditioning prior to the start of contact help athletes avoid muscle strains and ligament tears.

There is no question that the threat of concussion has raised awareness of the danger of football injuries. But with proper coaching, conditioning, equipment, and limitations on contact, football can be safer.

Close Read

Who is Mark Lovell and why is he quoted in this article? Cite text evidence in your response.