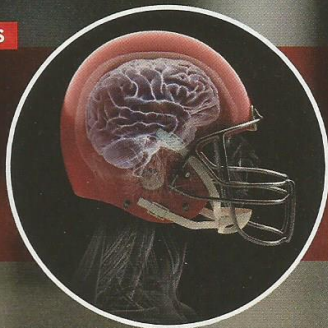
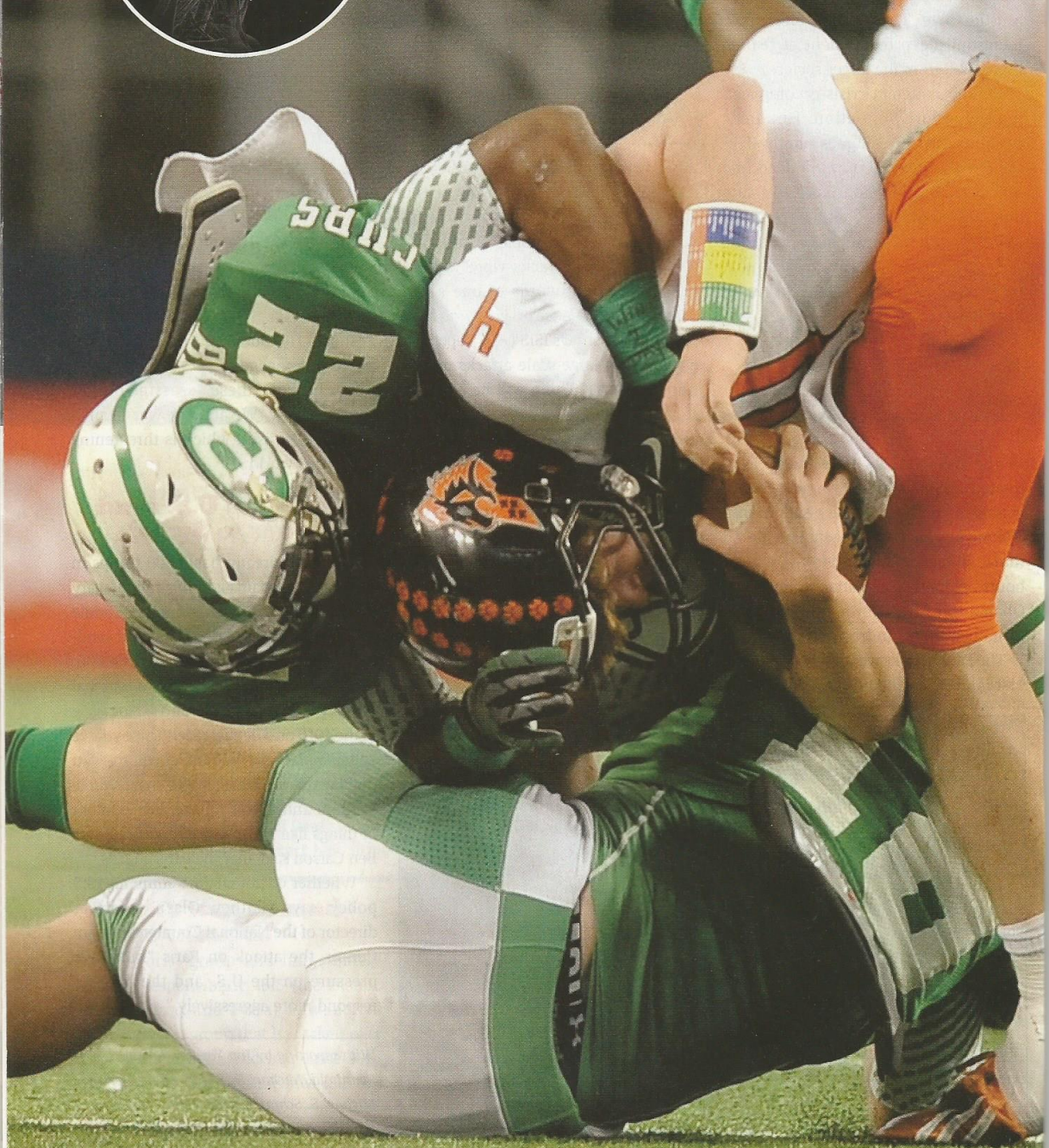


SPORTS



# HARD



# KNOCKS

## Football is one of America's most iconic sports. But is it just too dangerous?

BY GABRIEL CHARLES TYLER

**B**ryce Monti was about to make a routine tackle when he knocked heads with one of his teammates and fell onto the football field at Hortonville High School in Hortonville, Wisconsin.

"When I got back up, I saw two scoreboards," he recalls of the 2014 game. "I was out of it completely."

Monti, then a 17-year-old Hortonville junior, says he knew the helmet-to-helmet collision was a hard hit. But he shook it off and played the rest of the game. He had no idea that he'd sustained a concussion until his parents took him to the emergency room later that night.

Monti followed the doctor's orders and sat out a game. But eager to help his team, he returned after a week and quickly sustained another concussion. A year later, he's still struggling with painful headaches and he faces the possibility of permanent brain damage.

"I wanted to get back out there, not only for myself, but for my team," Monti says. "I never really thought going back would cost me in the long run."

His story, which received a lot of local media attention, is just one example of the recent

public spotlight on football and the repeated head trauma that's a routine part of the game. The National Football League (NFL) for years denied there was a link between the sport and brain damage, but in 2009, it acknowledged publicly for the first time that concussions suffered while playing football can lead to long-term negative health effects. Last year, the NFL revealed that it expects nearly a third of retired players to develop permanent brain impairments.

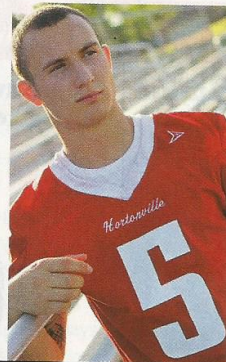
Medical researchers at Boston University recently confirmed that 88 of 92 former NFL players who donated their brains for research suffered from chronic

traumatic encephalopathy (C.T.E.), a brain disease induced by repetitive head trauma and linked to depression, aggression, impulse-control problems, memory loss, and dementia. Several former players—all found to have had C.T.E.—have committed suicide, and hundreds more continue to suffer from irreversible brain damage.

Concern over concussions has filtered down from the NFL to colleges, high schools, and youth leagues, with more parents becoming fearful of a sport that's long been tied

**'I don't think my life will ever be the same.'**

—BRYCE MONTI



**Aledo High School** battles Brenham High School in Texas, 2014

MATT STRASEN/AP IMAGES (ALEDO HIGH SCHOOL); SCIENCE PICTURE CO/GETTY IMAGES (HELMET); ALEXIS HYDE (BRYCE MONTI)

Watch a video about football and concussions at [upfrontmagazine.com](http://upfrontmagazine.com)

to community pride and tradition. A recent Bloomberg Politics poll found that 50 percent of Americans wouldn't want their sons to play football.

"Football is at a crossroads," says Jodi Balsam, a sports law professor at Brooklyn Law School in New York. "And that crossroads is about convincing the next generation of players and their parents that the game is safe to play and that the rewards of playing outweigh the risks."

Football has always been a sport known for hard tackles and rough play, making injuries inevitable (see "How We Got Football," p. 18). A typical high school football player receives about 650 hits to the head per season, according to research conducted by the University of Michigan's NeuroTrauma Research Laboratory. In 2014, more than 9,500 concussions were reported among high school football players in the U.S. At least eight high school football players have died so far this year, according to the National Center for Catastrophic Sport Injury Research, but, in some cases, factors other than football might have contributed to the deaths.

#### Playing Through Pain

Although sports-related concussions among young people in the U.S. have been on the rise in general (see "It's Not Just Football," facing page), football has the highest rates of catastrophic head injuries. Some argue that players have long been conditioned to play through pain, often heading back onto the field even with blurred vision, ringing in the

ears, or unsteady steps. That attitude—what experts call football's "culture of resistance"—has been ingrained in even the youngest players.

"It's a culture where the idea is to man up, to not let your teammates or coach down, and play with your symptoms," says Frederick P. Rivara, a pediatrician at the University of Washington's Seattle Children's Hospital.

In recent years, lawmakers and sports organizations have attempted to address concerns about concussions and to make sure players are better protected. All 50 states and Washington, D.C., have passed laws mandating how players with head injuries are treated. Many require the immediate removal of anyone suspected of having sustained a concussion and clearance from a qualified medical professional before the player can return to the field.

Washington State—the first state to enact a youth-sports concussion-safety law, in 2009—has taken a very tough line, requiring student athletes, parents, and coaches to complete a concussion-training education program each school year.

The NFL has teamed up with USA Football, the sport's national governing body, to sponsor the "Heads Up Football" initiative, which emphasizes safer tackling techniques, concussion recognition and response, and proper equipment fitting.

"USA Football's techniques and protocols are cutting-edge," says Chris

Haddock, the head football coach at Centreville High School in Clifton, Virginia, and a USA Football trainer. "Coaches at all levels are seeing the results of better tackling and fewer concussions."

But critics say more can be done to safeguard players, especially younger athletes whose brains are still developing.

"We're barely halfway there in terms of dealing with this issue, and young players are the key," says Gregg Easterbrook, a sports columnist and the author of *The King of Sports: Football's Impact on America*. "Nobody thinks that

football will ever be risk-free, but there's a lot that can be done to make it safer."

The love of football still runs deep across America. In many towns, especially in rural and suburban areas, it's more than just a sport. The games are events that bring families together and build community pride. Star football players are often local heroes.

"Football really instills a sense of pride in the kids who play and [in] their communities," says Amy McGahan, whose 15-year-old and 12-year-old sons play on their schools' football teams in Cleveland, Ohio. "It's where people can come together."

But as more has become known about the debilitating effects of repeatedly getting whacked in the head, a number of high schools around the nation have been debating whether having a football team is worth the risk. Several schools in Missouri,

### The love of football still runs deep across America.

**HOW MANY G'S? Average G-forces\* from a . . .**

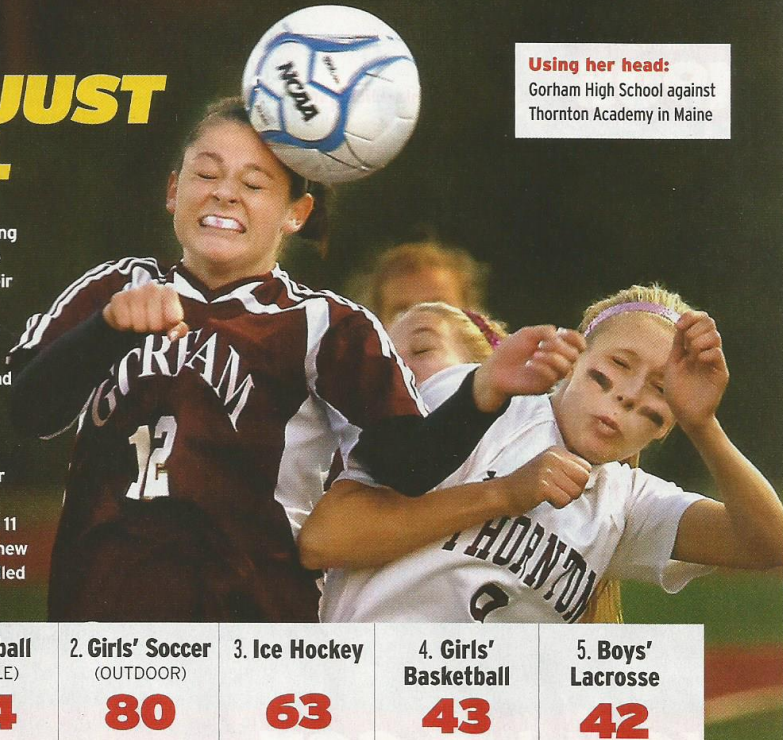
<p><b>. . . roller coaster plunge</b></p> <p><b>5g</b></p> 	<p><b>. . . heavyweight boxer's punch</b></p> <p><b>58g</b></p> 	<p><b>. . . football hit that leads to a concussion</b></p> <p><b>100g</b></p> 
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SOURCE: THE UNIVERSITY OF MICHIGAN SCHOOL OF KINESIOLOGY

# IT'S NOT JUST FOOTBALL

Football is getting lots of attention over concussions, but it's not the only sport facing questions about head injuries. In soccer, the technique of heading—when players use their heads on the ball instead of their feet—is one of the leading causes of head injuries in youth sports. Girls' soccer has the highest concussion rate after football (see below) and twice that of boys' soccer. Researchers say girls generally have smaller neck muscles than boys, making them more susceptible to concussions. Last month, the U.S. Soccer Federation, the sport's national governing body, banned heading for players under age 11 and limited its use for those under 14. The new rules resulted from a class-action lawsuit filed by concerned parents.

**Using her head:**  
Gorham High School against Thornton Academy in Maine



**BRAIN INJURIES**  
High school sports with the highest concussion rates (per 100,000 athletic exposures\*)

**1. Football**  
(TACKLE)  
**94**

**2. Girls' Soccer**  
(OUTDOOR)  
**80**

**3. Ice Hockey**  
**63**

**4. Girls' Basketball**  
**43**

**5. Boys' Lacrosse**  
**42**

\*An athletic exposure is defined as one athlete participating in one practice or game.

SOURCE: NATIONAL HIGH SCHOOL SPORTS-RELATED INJURY SURVEILLANCE STUDY, 2014-15 SCHOOL YEAR

New Jersey, and Maine have done away with football altogether because of safety concerns and low student interest.

At Maplewood Richmond Heights High School near St. Louis, Missouri, the school board cut the football team in June because fewer than a dozen players had signed up for the fall 2015 season. It was the second year in a row the school's football team failed to attract enough students.

Dawson Cordia, 17, a junior at the school who plays for the varsity soccer team, told the *Saint Louis Post-Dispatch* that many people, especially parents, struggled to accept that the school no longer had a football team.

"It kinda hit the community really hard at the beginning," Cordia said.

## 'I Feel Extremely Protected'

Most schools are still fielding teams, but some players are thinking much more about the hits they take.

"It's kinda scary looking at it in the news and seeing all the side effects," says Jack Sides, a 17-year-old football player at Highland Park High School in

Dallas, Texas. "But there's new technology and better rules implemented in the game, so I feel extremely protected."

For now, many experts say, the best way to make football safer is through more rule changes that mandate fewer full-contact practice sessions and reduce the number of blows to the head. Robert Cantu, a clinical professor of neurosurgery at the Boston University School of Medicine and an expert in concussion research, has advised parents not to allow their children to play tackle football until they're at least 14 years old. Research has shown that kids who begin playing tackle football before age 12 are more likely to develop thinking and memory problems as adults.

Terrell Fletcher, who spent seven years as a running back for the San Diego Chargers, agrees with Cantu. He didn't play tackle football until high school and made sure his oldest son did the same.

"Boys will be boys. They're going to push each other to the ground," he says. "But I didn't see the need to have it done intentionally at such a young age."

Fletcher says more-stringent policies, better equipment, and education efforts have indeed made football safer. But players like Bryce Monti who've already suffered repeated concussions wish they'd better understood the consequences of heading back into the huddle too soon.

Monti, now 18, suffers from post-concussion syndrome, which includes symptoms like constant headaches, nausea, and memory problems that can persist for months or years.

"I can take medicine for the symptoms," Monti says, "but there's nothing they can give me to make them just go away."

He sat on the sidelines during the entire 2015 football season, and plans to attend the University of Wisconsin-Whitewater next fall. Although he's learned to manage his symptoms, he wishes his daily headaches would go away.

"I feel like I just got a concussion last week," Monti says. "I don't feel like my life will ever be the same because of them." •

With reporting by Jan Hoffman of *The Times*.

TIM GREENHAWGGETTY IMAGES