inside his skull (see "Inside a Concussion," p. 17). At school the next day, Clayton couldn't recognize his friends. He also felt nauseated and confused.

The symptoms went away after a few weeks. But they returned this past summer while Clayton was going through hitting drills at football camp. So before the start of the school year, he decided to quit the sport he'd been playing since he was 6 years old.

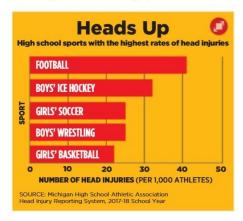
"It was one of the hardest decisions I've ever made," Clayton says. "But I'm very glad I did it."

Clayton is one of many young football players who have recently decided to hang up their cleats over concerns about concussions. As new evidence reveals more about the long-term health effects of repeated blows to the head, participation in high school football is declining. It's down by about 7 percent nationwide from 10 years ago. At the same time, a growing number of medical experts and lawmakers are urging parents and coaches not to let younger kids play tackle football at all.

"We don't have any more excuses; the proof is out there," says Orin Starn. He is a sports expert at Duke University in North Carolina. "Football is a destructive game that has long-term health consequences."

Playing Through the Pain

Football is not the only sport that can cause concussions (see "Heads Up," below). But the game has been under increased focus since 2005. That's when scientists revealed that they had discovered a disease called chronic traumatic encephalopathy (CTE) in the brains of former professional football players. CTE is caused by





"Quitting football was one of the hardest decisions I've ever made."

repeated hits to the head. Its symptoms include memory loss, depression, and suicidal thoughts.

The findings forced the National Football League (NFL) to acknowledge that football-related concussions can lead to long-term health effects.

The Teenage Brain

But it's not only NFL players who are at risk.

Concussions can happen to anyone. They are invisible injuries. Without special training, even many doctors can't detect them. Still, most heal if treated properly.

However, many young athletes who suffer a concussion return to their sport before their brains have healed. That can result in brain damage or death. Last year, a 16-year-old high school football player in Georgia died two days after suffering a head injury in a game.

"A teenager's brain is still developing," says Martha Shenton, a professor at Harvard Medical School in Massachusetts. "Even a moderate hit to the head following a concussion can be **fatal** because the brain hasn't healed from the previous blow."

Protecting Players

Despite the risks, many people say there are benefits for teens who play football. They point out that the

sport builds discipline and focus—skills that can help kids later in life. So an effort is now under way to make the game safer for young people.

For example, all 50 states and Washington, D.C., have passed laws **mandating** how young players with head injuries are treated. And many high school leagues now require the immediate removal of anyone suspected of having sustained a concussion.

But critics say these new safety measures aren't enough. They argue that tackle football is unsafe and that the only way to fully protect young people is by not letting them play it in the first place—at least, not until they're older. Lawmakers in states including New York and California recently proposed **bills** to ban tackle football before age 12, but none have been passed.

The Future of Football

Despite the risks, many people are not ready to give up on football. So today, parents in cities across the U.S. are increasingly signing their kids up for flag football as a safer alternative. The tackle-free version of the game is now the fastest-growing team sport in the country.

One flag football league, Football 'N' America, was co-founded by NFL player Drew Brees, quarterback for the New Orleans Saints. Brees, who coaches his sons' teams, hopes flag football will help keep the sport he loves alive. "If parents feel like the only option is tackle, then there's a danger that a whole generation of kids may never be introduced to the game," he told reporters.

The NFL doesn't want that to happen either. It recently pledged to give yearly **grants** to 400 Boys & Girls Clubs across the U.S. for flag football programs.

The league is also working to make football safer for

Inside a Concussion

A hit to the head is the most common cause of a concussion. Here's what it does to the brain.

- A sudden impact jolts the head in a particular direction.
- The force of the impact slams the brain against the inside of the skull. Then the brain bounces back and slams the opposite side.
- 3. Some hits also twist and stretch the brain as it bounces around.
- Severe concussions can make the brain swell. This puts pressure on the brain stem, which controls things like breathing.

professional athletes. Every NFL game now has a **neurologist** on the sidelines to evaluate players after hits to the head. The organization is also researching anti-concussion helmet technology.

Many fans say the efforts are a step in the right

SAFER SPORT

direction. That includes Clayton, the high school player who quit football. He still loves watching the game. But he thinks more people should consider the risks of playing it.

"Part of the problem is, when you're playing, you don't want to know about concussions," he says. "We like to hide ourselves from the truth." ◆



WRITE ABOUT IT!
What are some dangers and some benefits of playing tackle football? Cite evidence from the text.

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