

## New Ohio high school concussion rules aim to prevent injuries

By Vince Guerrieri • Staff writer • September 20, 2010

Tim Heffernan could see it in his player's eyes.

One of Danbury's football players was helped off the field in the Lakers' opener against Upper Scioto Valley. He was groggy, and stared with a glazed look.

Heffernan, Danbury's coach, sat the player for the rest of the game, a 42-20 loss to the Rams, along with another player who showed symptoms of a concussion.

"At that point, we didn't have a choice," Heffernan said.

New Ohio High School Athletic Association rules require that a player in any sport who shows signs of a concussion — grogginess, dizziness, loss of memory — must be pulled from the game, and can't play again until cleared by a team trainer and a doctor.

The cost was high for the Lakers. With two players on the sideline awaiting such clearance after the game against Upper Scioto Valley, and another player injured, Danbury — which started the season with 16 players — was forced to cancel the next week's game against North Baltimore. Tigers fans and even the coach had harsh words about the cancellation, and Heffernan said Danbury players were displeased as well.

But Heffernan knew the cost could have been higher.

"These young men don't owe their lives to the football team," Heffernan said.

As more research is being done about concussions in sports, the attitude toward the issue is starting to change. The harm concussions can do can be irreparable — and in some instances, fatal — but with proper education and care harm can be minimized, if not eliminated.

"This is probably the number one issue we're talking about," OHSAA Commissioner Dan Ross said

at a regional meeting. "There's an awful lot of new research."

### What is a concussion?

A concussion is a functional — not structural — brain injury that occurs when the brain, suspended in spinal fluid, is jarred to the point that it bumps against the inside of the skull.

Symptoms of concussions can include nausea, disorientation, memory loss, balance problems, blurry vision or ringing in the ears. Concussions can cause unconsciousness, but they can be sustained without blacking out.

Dr. Kelsey Logan, medical director of the sports concussion program at The Ohio State University Sports Medicine Center, said concussions are treatable. The younger the sufferer is, the more complete the recovery typically is.

"We believe that the growth of the brain helps recover completely, but it takes longer," she said.

The center's guidelines show it takes about two weeks for a high school student to recover from a concussion. For a junior high student, it can take an additional week. For a college student, it can take a week to 10 days.

However, this is all contingent on diagnosing the concussion and treating it immediately. Undiagnosed concussions can lead to potentially fatal consequences.

Second impact syndrome is when someone sustains a second concussion before a first concussion has healed properly, resulting in a catastrophic brain injury that can be deadly or lead to long-term disability.

"It's totally preventable," Logan said. "If we can get athletes, coaches and parents to understand what it is, we can pretty much wipe out second impact syndrome."

For school districts, second impact syndrome isn't just a health issue. Ross said it could be a liability — and there isn't enough money to cover that kind of suit.

"There is no game — ever — that's worth a child's life," Ross said.

Even if treated, the effects of concussions can add up and lead to brain damage.

### Then and now

Once upon a time, football players — and athletes in general — were supposed to play through pain. Anyone who got dinged or had their bell rung would sit for a while, regain their bearings and get back into the game as a sign of toughness.

"There was a time, say 10 to 15 years ago, a kid would get dinged, and the perception was he was a sissy if he didn't play through it," Heffernan said.

Even losing consciousness wasn't an impediment. Lou Gehrig, the New York Yankees first baseman known as "The Iron Horse" for his streak of 2,130 consecutive games played, was hit in the head by a pitch in an exhibition game in 1934. He was out for five minutes, but he started the next day.

Gehrig's streak ended in 1939, when he started showing symptoms of a neuromuscular impairment. He was diagnosed with amyotrophic lateral sclerosis and died from it two years later. The ailment is known informally as Lou Gehrig's Disease.

Only it might not have killed Lou Gehrig.

A study in the September edition of the Journal of Neuropathology and Experimental Neurology found a link between repeated head trauma and ALS. It also found a link between repeated head trauma and chronic traumatic encephalopathy, a disorder in which people exhibit signs of Alzheimer's disease.

But unlike Alzheimer's, which is genetic, CTE has an environmental cause.

In fact, it was generally referred to as "dementia pugilistica" or punch-drunkenness, because it was found in former boxers.

Autopsies of former NFL players have shown evidence of CTE. Even former Bengals wide receiver Chris Henry, who died last year after an accident at age 26, had signs of CTE in his brain, an autopsy showed.

### Education is key

The game of football — even at the high school level — has changed dramatically over the years. In some instances, high school linemen are bigger than their NFL counterparts from a generation earlier.

"Even at the high school level, players are bigger, faster, stronger," said Gary Quisno, who played high school and college football and spent 30 years as a coach in the area at Danbury, Oak Harbor and Sandusky Perkins.

Technology has tried to keep pace with the game. Clyde coach Marc Gibson said the Fliers try to wear helmets that are designed to minimize concussions, but Ross told athletic administrators helmets are designed to protect from head injuries, not necessarily brain injuries.

"There's no concussion-proof helmet," Gibson conceded.

But coaches can teach football players how to hit to minimize impact. There are rules against spearing — hitting another player with the top of your helmet. Gibson said he encourages his players to “bite the ball” — that is, follow the ball with their face. That way, they’ll be in a position to hit someone with their shoulder pads and minimize head contact.

“Shoulder pads are for hitting,” Gibson said. “Helmets are for protection.”

At the same time, information about concussions keeps increasing. Logan said that at one point, there was a cookbook approach to treating concussions, with a grading scale based on symptoms.

“Now, that really plays no role,” she said.

Gibson said spotting concussions was difficult, because some coaches didn’t know what to look for — or how serious one might be.

“It wasn’t a broken bone,” he said. “It wasn’t a torn ligament. It wasn’t something you knew you couldn’t play with.”

Now, there is more diagnostic equipment available, such as magnetic resonance imaging. The more coaches learn about concussions, the more they find how they themselves might have been at risk back in the day.

“When I was playing, a kid would get a headache, and he’d play it off,” Gibson said. “I know I’ve played with a couple concussions.”

## Changing the culture

When Heffernan told his team the game against North Baltimore was canceled, players were disappointed. The players who had the concussions were actually angry.

“They felt they were letting the team down,” he said.

It’s all part of a high schooler’s idea of maturing. You play through pain.

“Most kids will put themselves in harm’s way,” Heffernan said. “They think that’s what it means to be a real man.”

In no uncertain terms, Logan disagrees.

“They are brain injuries,” she said. “Athletes cannot

tough it out through concussions.”

Quisno said he’s pulled players from the game, and they weren’t happy.

“You always get players who want to get back in,” he said. “They could plead to me all they want, but we’d never go against our doctors or even our trainers.”

This year, the OHSAA adopted the guidelines of the National Federation of State High School Associations. Anyone with concussion symptoms is pulled from the game, and has to be cleared by a doctor before playing.



[Purchase this Photo](#)

St. Wendelin running back Austin Reinhart is gang-tackled by Danbury's Ed Strimpfel, Brandon Bahnsen & Dakota Hruby during a game last week against Fostoria St. Wendelin. The Lakers beat the Mohawks, a week after they had to cancel a game because of low numbers and injuries, including two concussions. (John Kozak | News-Messenger)

**Incidences of concussions by sport per 100,000**

Football 52  
Girls' lacrosse 39  
Girls' soccer 35  
Boys' lacrosse 32  
Wrestling 22  
Girls basketball 20  
Boys' soccer 17  
Softball 15  
Boys basketball 7