

Concussions a lingering issue for high school athletes

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James Lick Line coach Robert Monges checks tight end Dominic Brewster for a... (Patrick Tehan)



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Colin Quirke remembers clearly that it happened in the first game last football season. It's everything else that's hazy.

A Los Gatos High defensive tackle, Quirke was running full speed downfield on a kickoff. He collided violently, helmet to helmet, with an opponent and ended up on the ground, dazed. Then he was standing on the sideline, splashing water in his face, not comprehending what was being said to him. Then the emergency room. Finally, a trip to another hospital for a longer stay.

Months later, Quirke still found himself plagued with memory lapses and moments of confusion. He was struggling in school.

All were lingering side effects of a surprisingly common, yet poorly understood, sports injury: the concussion.

"People just don't really get how bad this can be," said Quirke, now a senior. "Mine was way worse than most. But even the normal concussions can leave a person's brain all screwed up."

Often dismissed as "just" getting your bell rung, concussions are mild traumatic brain injuries that can lead to long-term neurological impairment if not properly diagnosed and treated.

Yet for all the recent attention paid to concussions in the NFL, health experts believe there's a larger problem occurring under the radar at the high school and youth sports levels.

Part of the reason is revealed by using basic math. While roughly 2,000 players suit up in an NFL season, more than 1 million teenagers play high school football each fall.

Maturing brains also seem to be more susceptible to harm from multiple concussions. That's especially worrisome because youth sports - and not just football - have become more competitive and rigorous at younger ages.

"Kids are at the greatest risk for health problems," said Mark Lovell, director of the University of Pittsburgh Medical Center's Sports Concussion Program. "Age matters. Kids take a lot longer to recover."

Adding to the concern is the fact that many coaches, parents and young athletes themselves don't appreciate the dangers.

"Everybody thinks a concussion is just about your head hurting," said Archbishop Mitty basketball star Drew Gordon, who was plagued by them in his middle-school years. "Until you experience a serious one, you don't get the true meaning of a concussion."

`Tip of the iceberg'

Think of an egg that is vigorously shaken. The yoke inside can be damaged. The human brain is prone to injury in much the same way by the rapid movement caused by a sudden blow to the head. The result can be a temporary or prolonged disruption in mental awareness - the definition of a concussion.

The Centers for Disease Control and

Prevention has estimated that between 1.6 million and 3.8 million sports-related concussions occur annually. But Lovell believes those numbers underestimate the problem.

"Athletes who suffer concussions often don't report them," Lovell said. "We're only reaching the tip of the iceberg in the true number."

The consequences can be profound. Dr. Julian Bailes, who chairs the University of West Virginia's department of neurology, said studies of retired NFL players have shown athletes who suffered three or more concussions are three times more likely to have memory problems. They also are five times more likely to develop Alzheimer's disease.

Research also has shown all athletes who get a concussion face an exponential risk of suffering another, more-damaging one if they return to action too soon. That's why doctors strongly advise athletes to sit out until symptoms such as headaches or dizziness pass.

But athletes often don't realize they have been seriously hurt, or they try to hide it. Because concussions are an unseen injury, they can go undetected by coaches and trainers.

"The problem with the milder concussions is the kids don't even tell you," said Los Gatos football coach Butch Cattolico. "Coaches are not geniuses. It's hard to tell about these things."

Dr. Ted Guarino, a Los Gatos-based child neurologist, understands. Guarino - who sees a large number of soccer and lacrosse athletes in addition to football players - said he often deals with kids who are disappointed when he won't clear them to resume playing.

"So it's not like coaches are being malicious or are ignoring signs," Guarino said. "But we still have this trend where kids are getting conked on the head then they're back in the game after just a series or two."

Not just a football thing

Football may receive the most focus, but all young athletes are at risk.

Gordon, a 6-foot-9 senior and one of the top basketball talents the South Bay has produced, will attend UCLA on scholarship. But he started as a hockey player. Then he suffered a string of head injuries on the ice - the first at about age 8 or 9. He aggravated those with playground rough-housing.

"You know, just dumb kid stuff," said his mother, Shelly Davis. "But if he hadn't already had a concussion, it probably would have been just a nasty bump on the head."

Gordon's last concussion came a few years ago when he took a blow to the face during a basketball game. Davis thought her son's major injury was a split lip. Then she realized he had no recollection of what happened until after he received 25 stitches.

"I wish I could tell you more about that," he said. "But I can't remember anything from that day, or several days afterward. Your head hurts and you'll start to see spots. It makes you feel nauseous. You just want to lay low."

Bethany Nollette saw her Leland High water polo career cut short after she seemingly became a magnet for concussions. Her first injury came a year ago in an ATV accident. While she recuperated, Nollette was serving as her team's scorekeeper when an errant ball struck her head, giving her a second concussion.

Several weeks later, she was hit by a door while walking in a school hallway - reinjuring her yet again.

For Nollette, who hopes to resume playing water polo for the University of the Pacific, her frustration was compounded when she believed others didn't appreciate how seriously she was injured.

"I felt like my coach was a little agitated that I wasn't playing," she said. "I don't think he really understood."

Setting a baseline

A new tool in dealing with concussions is something called baseline testing. Companies are marketing concussion-management programs such as ImpACT, which was co-designed by Lovell.

Athletes sit in front of a computer and spend 20 minutes on a series of tests that measure memory, concentration and rapid decision-making. If they suffer a head injury, they retake the test to see if there has been a significant drop in cognitive ability.

"This way, there's no guesswork about whether a kid should get back in the game or when a parent wonders why their kid isn't playing," said Terry Ward, the athletic director at Bellarmine College Prep, where they just started testing.

The program is used by NFL, NHL and college teams as well as at more than 1,000 high schools nationally - at a cost of about \$500 per school.

"But the most important thing for a high school to have isn't a computer program but rather a health care professional making sure athletes are safe to return," added Dr. Cindy Chang, Cal's head team physician and a member of the California Interscholastic Federation sports medicine committee. "Schools with money have them. But inner-city schools don't have the resources for a certified athletic trainer. That's the larger problem."

James Lick High football coach Shawn Lewis knows firsthand. His school doesn't have a trainer, and it was left to his coaching staff to decide to keep several players off the field last year after they showed concussion symptoms.

"When you don't have a trainer, it's up to us to protect the kids," Lewis said. "Schools' budgets are such an issue in Northern California, but it's so important to have funds so kids get the proper equipment. We've got some helmets that probably are 12 or 13 years old. But I make darn sure that at least they fit the kids properly."

Gordon escaped his concussion cycle when he took a six-month break from contact sports. That's when he started competing in the shot put and discus, becoming friends with Quirke, who is another track star.

After last fall, they had something else in common.

A `scary' situation

Paul Quirke vividly recalls how his son was incoherent and had little movement on his left side when they reached the emergency room the night Colin was injured.

"It was very scary," Paul said.

The worst part came after Colin was released and suffered a recurrence of the symptoms, putting him in the hospital.

"The neurologist told him, 'Colin, if you get a second concussion while this one hasn't fully recovered, it's going to result in a very serious condition,'" remembered Paul, a 1992 Olympic shot putter for Ireland. "Colin said, 'What's that?' The neurologist responded: 'Death.'"

"That got his attention."

Colin, who is 6-foot-3 and 240 pounds, wasn't cleared to return until the Central Coast Section title game. But even as he regained his physical health, he continued to show a lack of motivation and did poorly in school.

He finished third in the state shot-put competition in the spring. But Colin also missed the discus event at the CCS finals in Gilroy when he made a wrong turn onto Highway 101 - going north instead of south. He wonders if the concussion was a factor.

"I should have known to go south," Colin said. "I wasn't thinking. But little things like that happen to me now, more than they ever used to in the past. I still have problems with my memory."

But he is out for the football team again this fall with an upgraded helmet and close monitoring by his coach. Colin said his father wishes that he would give it up.

"Everybody keeps asking me why I still want to play," he added. "But it's my senior year and I just love the game."

Experts say they walk a fine line between creating awareness without being alarmists. Bailes, the West Virginia neurologist, emphasizes that sports remain reasonably safe, as well as a healthy outlet for youngsters.

"I tell parents that if kids don't have organized sports, what else will they be doing with their time?" Bailes said.

Meanwhile, Colin said earlier this summer he was watching an episode of HBO's "Real Sports" on former NFL players who are suffering dementia-like symptoms that may have resulted from concussions.

"It's kind of scary to see guys years later having all those problems," he said. "I guess I don't want to think about it."
