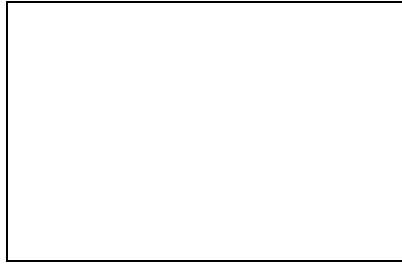


Knocking Heads Concussions are a big concern, even at the high school level

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Westford Academy football player Sean Doherty and trainer Bill Bombaci demonstrate post-concussion test on computer. Doherty suffered a serious concussion last season. The ImPACT test helps measure concussions. SUN/BOB WHITAKER

WESTFORD -- Too many Friday nights had already come and gone without him. Sean Doherty's final football season at Westford Academy was slipping away. He ached to play again under the autumnal lights.

The senior co-captain sat out Westford's first five games last fall after undergoing shoulder surgery in the spring. But on Oct. 13 versus Bedford, he was finally back and primed to hit somebody. During a pre-game drill, the fired-up Doherty collided helmet-to-helmet with a teammate. He felt an immediate uncomfortable sensation.

As a youngster Doherty had tumbled off a slide and suffered a concussion. He now felt locked again in that languid state.

"The first two carries I had (in the game) were touchdowns," Doherty, a 5-foot-9, 185-pound linebacker and fullback, recalls with amusement. "But watching it (on film), I look like I am in slow motion. My mind just was not there."

Concussions are a buzzing concern in football, this concern heightened recently by former New England Patriots linebacker Ted Johnson's

disturbing claim that head coach Bill Belichick in 2002 subjected Johnson to contact during practice while he was still suffering headaches. Johnson blames his memory loss, depression and addiction to amphetamines on repeated concussions he suffered during a 10-year NFL career.

Former Philadelphia Eagles safety Andre Waters had suffered countless concussions during a 12-year NFL career. He reportedly had the brain tissue of an unhealthy 85-year-old when he committed suicide last November at age 44.

High school players emulate NFL players in many respects, but Dr. Mark Romanowsky's experience in 10 years as Lowell High's football doctor is that symptoms associated with serious concussions (dizziness, headaches, blurred vision, nausea) frighten kids into rational responses. Few foolishly stagger onward in accordance with misguided old-school football scriptures.

"Kids might try to hide (concussion symptoms) from their coach. They're not going to try to hide it from a trainer," says Romanowsky. "Kids get scared."

But just in case, Dracut High athletic trainer Kristen Ducharme seizes the helmets of players who show concussion symptoms and locks them in her office.

"If they want to go out there with a head injury and no helmet, then you know (for sure) they're in trouble," she says.

Protecting young lives

Noting that the NFL is a totally different high-stakes universe in which lucrative livelihoods are at stake, Westford Academy athletic trainer Bill Bombaci says, "We're also not dealing with non-guaranteed contracts. Things get different when lots of money is involved."

In high school the sole concern is protecting young lives. Westford Academy is the only local public school which utilizes a computer software program developed at the University of Pittsburgh Medical Center called ImPACT (Immediate Post-Concussion Assessment and Cognitive Test), which measures athletes' concentration, reaction time and memory.

Usually before their season, while symptom-free, an athlete takes a 20-minute test to establish a baseline score of their cognitive functions. Words, numbers and drawings flash on a computer screen and the athlete must at varying intervals recall those which did appear.

If an athlete suffers a concussion, they retake the test and must achieve their baseline score before being allowed to return to the field.

The software costs \$500 a year, according to Bombaci, and is used by several NFL and NHL teams. It is installed on 25 computers in the Westford Academy computer lab. More than 400 Westford athletes have taken a baseline test.

"It's not something used to diagnose concussions," Bombaci stresses. "It's a tool, used in conjunction with the observation of a doctor, to help monitor the recovery process."

At Dracut, Ducharme uses a baseline-testing program called Standard Assessment of Concussion (SAC), a more portable pencil-and-paper method that allows immediate sideline post-concussion assessment. (Bombaci also utilizes SAC on the sideline during games.)

"The test makes it easier (to determine whether a player can re-enter a game)," says Ducharme. "The kids have a visual. I show them the (baseline) score they need."

Remembers the headaches

Doherty remembers the two touchdowns he scored in his first game back last October.

Mostly he remembers the headaches.

He missed two practices the week following the Bedford game after alerting Westford coach Mike Parent to the headaches. Determined to salvage the five games remaining in his senior season, Doherty was relieved when the headaches disappeared later that week. He obtained a doctor's note allowing him to suit up against Wayland.

"But I wasn't right," he says. "I felt like I had weights on my feet. I made it seem less serious to everybody than it probably was."

After that Wayland game, the headaches were back. Doherty went to Bombaci and took a post-concussion ImPACT test. The result was alarmingly below his baseline score.

"I brought the two tests (baseline and post-concussion) to the doctor and he was stunned how significantly different they were," says Doherty, who felt moody and could not concentrate in school. "This program shows you how your brain is working and whether you're ready to be back on the field. Even so, if the headaches don't go away, you can't play."

Doherty sat out Westford's next three games. The headaches relented. His ImPACT score improved. He returned on Thanksgiving Day to play in the Grey Ghosts' 12-0 loss at Acton-Boxboro. Other than for the loss, "I felt great," says Doherty, who has been headache-free for more than two months and aspires to play football in prep school in the fall.

"Sean is a tough, hard-nosed kid. He's also a smart kid," says Parent, the Westford coach. "As much as he loves football, he started reading up on concussions and realized what can happen if you play when you shouldn't."

Football main worry

Concussions occur in every high school sport, though most frequently in football, followed next by ice hockey.

"Sometimes there is still that macho attitude in sports: 'OK, just walk it off and get back in there,'" says Romanowsky, who also serves as doctor for UMass Lowell hockey and Golden Gloves boxing, and whose son and father both played football at Boston College. "But there is now so much more awareness about head injuries. All the young trainers are trained extensively in it, much more so than are the coaches. The trainers exert enough power and pressure to keep kids who are showing symptoms off the field."

Chelmsford High football coach Bruce Rich says "a few" of his players missed games last season due to concussions, which seems the norm in the area.

"We're cautious," says Rich, emphasizing that the medical staff sets down the law on the sideline (which if NFL horror stories are to be believed, is apparently not the case there). "Some kids won't tell you that something is wrong, and that becomes a dangerous thing."

The coaching and training staffs at Westford talk to athletes about recognizing concussion symptoms in teammates. "They're not doing their teammates any favors by not saying anything to myself or the coaches," says Bombaci. "This is not a toughness issue. This is a smartness issue."

Tewksbury High football coach Brian Aylward is with his players enough year-round that he senses when one is off-kilter.

"(Last) Thanksgiving we had a kid, who might be one of the smartest kids in the high school, who couldn't do simple math problems (after taking a hit to the head)," says Aylward. "We knew he had a problem."

Doherty's mother Patricia says Westford's medical and coaching staffs were strict about keeping her son off the field until he was fully recovered. Yet she also believes players suffering milder concussions can hide symptoms from trainers and coaches.

"I believe Sean has gotten his head whacked and opted to go in the game without telling the coaches his condition," she says. "There were times out there when he didn't know what he was doing for five minutes."

At least now, Doherty for the rest of his life should have a handle on what he is doing. "If you go back on the field when you're not ready, you're putting your life in jeopardy," he says.

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