

Trainers first on the scene to treat concussions

Doug Green | The Quad-City Times | Posted: Monday, October 18, 2010 2:00 am



Rock Island trainer Tim Mangold, left, and Dr. Thomas Von Gillern tend to the Rocks' Chris Glover on Oct 8. Glover was shaken up on the play but did not sustain a concussion. (Louis Brems/Quad-City Times)

When it comes to educating those in his care about the dangers of concussions, Pleasant Valley athletic trainer Jason Viel doesn't mince words.

"I tell them you only get one brain," Viel said. "You want to play in one game or do you want to live your life as normal as you can?"

By making that shocking statement, Viel tries to demonstrate just how important it is to make sure players are fully healed before they return to action.

"They decide maybe I want to be normal," Viel said.

According to the National Federation of High Schools, 140,000 athletes suffer a concussion each year.

When a high school athlete suffers a concussion, the person doing the initial diagnosis almost always is an athletic trainer.

The schools in the Mississippi Athletic Conference and the Western Big Six all use certified athletic trainers for football games. Some are district employees, while others are contracted through Orthopedic/Rheumatology Associates, Rock Valley Physical Therapy, Genesis or Trinity.

They take concussions seriously.

Using the test

Viel, who is in his ninth year as a certified trainer, has a set plan he developed for players who have been concussed that is above and beyond what the NFHS requires.

The process begins before the season, when Viel administers a baseline test called ImPACT (Immediate Post-Concussion Assessment and Cognitive Testing) to every Spartans football player.

ImPACT is a computer-based evaluation system that tests a player's brain function, giving a base-line reading that can be compared to a post-concussion result to determine if a brain has healed. The test takes 20 minutes to complete and is a series of mini-tests that checks everything from pattern recognition to short-term and design memory.

"It's not foolproof. It's not used to necessarily diagnose," Viel said. "It tells you that something is not right with the brain and then you have to put two and two together. Then you can show a parent or coach."

When players are suspected of having a concussion, they are taken off the field and given a series of tests to determine their level of mental acuity by doing something as mundane as telling what the score of the game is or reciting a set of words.

If they have suffered a concussion, they must be symptom-free for a set time - usually 24 to 48 hours - before they will be tested on ImPACT.

If their scores are normal, they begin a three-day process of re-integration back into practice. If at any point their symptoms return, the player goes back to square one and must retest.

Not fool-proof

Bettendorf trainer Eric Knudson has a policy that players showing concussion symptoms must be out five days before Knudson will test them. In the end, the player will miss at least a week of practice.

The Davenport Schools do not use ImPACT but employ a pencil-and-paper version called SCAT (Sport Concussion Assessment Tool).

"I rely on the trainer to know what an athlete is normally like," said Jessica Ellis, who is the team doctor for the Davenport school district and St. Ambrose University. "I have standardized tests with memory, cognition, balance checks."

Ellis said computer tests don't tell the whole story, either.

"You can't just take a test and know when someone is ready to go back," she said. "The national standard would be to have a neuro-psychologist analyze each test, but no high school has those resources."

No matter the testing, before a player can return, they must be cleared by a doctor.

New information

Dr. Mark Stewart, an orthopedic surgeon who serves as the team doctor for Geneseo, the Quad-City Mallards, the Quad-City Blues and Augustana College, uses a checklist to clear players. It includes the severity of the concussion, the athlete's history of concussions and if his symptoms have cleared yet.

"I also look for little things that you may not hear about, like watching TV, reading and the ability to concentrate," Stewart said.

Even if symptoms such as headaches and vomiting have cleared, the inability to concentrate and focus indicate that the brain isn't fully healed yet, Stewart said.

How the brain heals is information that the medical field constantly is learning about. New information in all areas of concussions is emerging as fast as athletic trainers can learn it.

Alyssa Stephenson, Davenport West's athletic trainer, has seen 12 concussions this fall on all three levels of football. Keeping up on the latest treatments is part of the job, she said.

"We have to have continuing education credits to stay certified," Stephenson said.

Seminars, journals, research articles and league recommendations are ways that athletic trainers keep current.

Shortage of trainers

While the metro Quad-City schools have an athletic trainer ready for an emergency, area schools are not always so fortunate.

According to the National Athletic Trainers Association, 42 percent of high schools don't have access to certified athletic trainers.

"We don't have the medical resources that the NFL or NCAA has," said Bob Colgate, assistant director of the NHFS. "With our educational push, our front lines are our coaches. In our rural communities, sometimes the closest thing they have to medical professional is the local vet. I wish we had a certified athletic trainer in every high school."

That makes some coaches nervous. East Central coach Duane Garien has watched the online tutorial presented by the NHFS, but in an emergency the closest medical personnel to his school is in Clinton, about 23 miles away.

"We spent more time on this concussion thing at rules meetings," Garien said. "It had coaches scared. We're a small town, a small school. We're just trying to cover our heinys."