

Giving athletes a heads up

By Jessica Scarpati

STAFF WRITER

Local doctor creates concussion management program

Michael Bennett doesn't really remember how that varsity football game against Dedham early in the season last year ended.

That sounds kind of strange coming from the high school team's running back and outside linebacker.

But Bennett, 16, is foggy on the details because he suffered a concussion midway through the game after ramming into a player on the other team.

"I ran up to block someone, and this guy came out from nowhere, I guess. We both collided," recalled Bennett, now a junior at Brookline High. "I spun around, fell down and don't really remember much after that."

Sideline officials grilled him with field tests to diagnose a potential concussion. Consequently, Bennett was benched for the rest of the game, a week of practice and another game the following week.

"I did want to play again, but I also had to take it pretty seriously," he said. "I didn't want to risk another concussion and further hinder my play."

The response Bennett received on the field and his subsequent reaction is a huge milestone for Dr. Neal McGrath, who has spearheaded the state's first sports concussion management program with a public high school at Brookline High School.

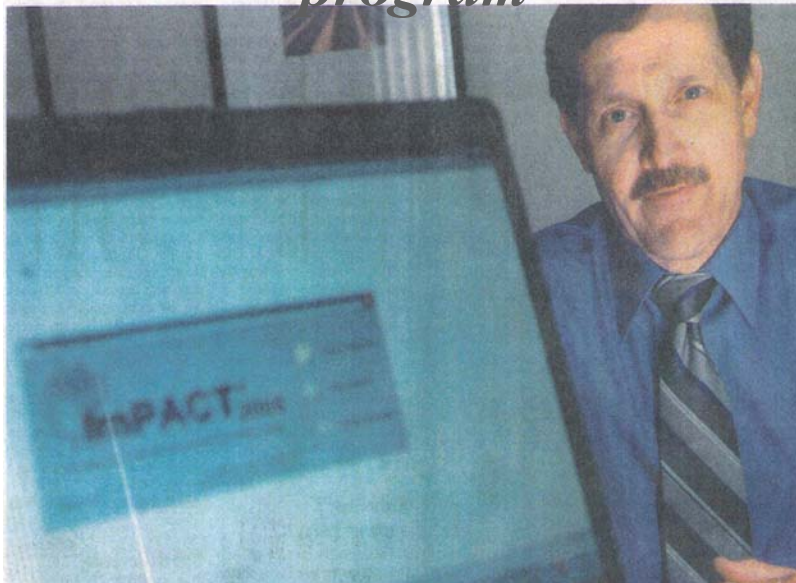
"Sometimes kids don't always tell the truth [about sports injuries] because they're highly motivated," said McGrath, a neuropsychologist and Plowgate Road resident. "The last thing any of these kids wants to do after training to be so competitive is to sit on the bench."

For the past three years, athletes with these mild brain injuries are doing exactly that as part of a prevention and recovery program McGrath said is key to thwarting repeat injuries.

"There's been a growing recognition that complications - and sometimes serious complications - come from getting one injury on top of one that isn't fully resolved," McGrath said from his Coolidge Corner office, where he operates Sports Concussion New England.

But it's not just the players who may be misinformed. McGrath said he founded the program, which he volunteered to start as a pilot at the school, after trainers failed to diagnose his own son's concussion in 2003 during a winning game against Weymouth.

"Instead of finding our son, Matthew, celebrating with the team, he was walking around crying," he recalled. "We said, 'What's wrong?' He said, 'I can't believe I lost the game for the team.' I took one look at him and knew he had



After his eldest son suffered a concussion that went undiagnosed during a football game, Plowgate Road resident and Neuropsychologist Dr. Neal McGrath partnered with Brookline High School and founded a sports concussion prevention and education clinic.

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To prevent history from repeating, McGrath brought a test to the high school's athletic department, known as IMPACT, to assess athletes' cognitive functions.

In the preseason, athletes are given a baseline test, and then subsequent tests if they suffer a concussion.

But the test doesn't measure intelligence, and McGrath said many student-athletes compare taking it to playing a video game.

A red square pops up on the computer screen, and McGrath clicks the left mouse button. A blue circle follows, prompting McGrath to click the right mouse button, as the computer program tests his reaction time.

After a concussion, patients often exhibit isolated or combined physical, cognitive and emotional symptoms, McGrath said. But sometimes, such as in Bennett's case, they don't display any symptoms at all.

"I felt fine," Bennett recalled. "I couldn't really tell physically that there were any problems."

That illusion of fitness is most dangerous, McGrath said, noting the test is designed to pick up on such slight brain damage that wouldn't be apparent from a CT scan or an MRI.

"They may indicate they're feeling better and doing better, but under the stress of exertion, their nervous system is not where it should be," he said.

Robert Burke, the team's athletic trainer, administers the IMPACT computer test on the players, and said reoccurring injuries appear to have dropped by 45 percent.

"We've been pretty successful at this point [because] the students are self-reporting and they're reporting about their friends because they understand it's life-threatening," Burke said.

A the program enters its third school year, athletic director Pete Rittenburg said athletes who play football, rugby, hockey, lacrosse, soccer, baseball, softball and basketball are all tested.

Rittenburg said the department is also testing athletes who might not seem immediately at risk but are prone to concussions, such as cheerleaders, divers and gymnasts.

"It gives us another tool and a more sophisticated tool for making return-to-play decisions after an athlete has sustained a concussion," Rittenburg said. "It's not about injury prevention so much as it's about risk management after there has been an injury."

Brookline High School athletes sustained about 25 concussions each year over the past three years, he said. But according to Rittenburg, that's 25 too many.

"We're talking about high school athletes where the stakes are nowhere near as high in terms of the sporting consequences," he said. "But the stakes are much higher with [respect to] the adolescent brain."

If properly treated, a single concussion should yield no long-term consequences as the brain can heal itself, McGrath said.

But if a concussion patient does not get the necessary physical and mental relief, McGrath said symptoms - which can include headaches, poor concentration and depression - can prolong or worsen, especially with repeat injuries.

"You may reach a point where the symptoms don't really go away," he said, pointing to former New England Patriots linebacker Ted Johnson, who retired last year citing the consequences of multiple concussions.

"Our hope is if we do the education and we have the testing in place ... we have a system that is ready to recognize the injuries and deal with them appropriately," McGrath added. "As a parent myself, this is what I wish would've been in place when my own kid had an injury."

For more information about sports concussions and Dr. Neal McGrath's work, visit www.sportsconcussion.net.

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