Physician Scores New Program to Teach Young Athletes about Concussions

By Michelle Brubaker | January 07, 2014

ccording to the Centers for Disease Control and Prevention, emergency room visits for sports-and recreation-related concussions among children and adolescents increased by 60 percent in the last decade. It's a growing statistic that motivated David Bazzo, MD, with the Department of Family and Preventive Medicine at UC San Diego Health, to become team physician at Mira Mesa High School and educate young athletes and their families about concussions.



Bazzo (center) and his team.

"It's important for coaches, students and parents to learn about concussion prevention, symptoms and treatment. Once an athlete suffers from one concussion, he or she is at higher risk for future concussions, which could cause more severe issues. If not properly evaluated, returning to activity too soon after an injury can lead to Second Impact Syndrome, causing bleeding in the brain or even fatality," said Bazzo.

A concussion is a traumatic brain injury that can change the way your brain normally functions. A concussion can be caused by a minor bump or severe force to the head and symptoms include dizziness, memory loss, sleep disturbances, confusion, mood changes and headaches.

Through his efforts as team physician, Bazzo gives concussion presentations to the coaches and players and conducts online, pre-season testing on each athlete to use as a behavioral baseline. The screenings test a player's memory and cognitive functions.

"Concussions can happen in any sport and some people are more genetically prone to them," said Bazzo. "Just recently, I examined a water polo player who was still experiencing concussion symptoms two weeks after being injured. Athletes, coaches and parents need to stay proactive and armed with information that could save lives."

Bazzo and his team, made up of UC San Diego Health residents and students, spend hundreds of volunteer hours working with the staff and families at Mira Mesa High School.

"It's a wonderful teaching opportunity for my team," said Bazzo.

While it may be difficult to always prevent a concussion, Bazzo offers the following tips and expertise:

- Make sure to wear properly fitting protective equipment that is in good working condition when engaging in sports or recreational activities. Protective head gear does not prevent concussion. Helmets and mouth guards prevent skull fracture and dental injuries but do not prevent concussion.
- → Don't lead with your head when making contact with another athlete, specifically with football.
- → Utilize "heads up tackling" that teaches players to keep their heads up and out of the line of contact.
- It's extremely important that coaches are trained in teaching athletes about safe techniques and are able to recognize when a concussion has occurred so the player can be removed and evaluated.

"If a concussion is suspected, we then have the athlete retake the pre-season test to compare results. We also use the test to determine when a student is ready to play again after suffering a concussion," said Bazzo.

Once it's determined a player has a concussion, Bazzo works with the coaches and families for the most appropriate treatment option.

"Medications can be prescribed for severe symptoms but usually the only thing that will cure a concussion is time. The brain needs time to rest and heal," said Bazzo. "The younger the brain, the more long term effects a concussion can have on a patient, so it's critical that players protect themselves and take the time needed to recover before rushing back into the game or daily activities."

In some cases, patients need to retrain the brain to restore cognitive and balance function. After the "brain rest" period, patients have increasingly more complex tasks reintroduced, including

reading, studying, complex equations and problem-solving, as well as balance and increased physical activity.

"This gradual return to activity seems most effective," said Bazzo.

Bazzo also helps parents become advocates by teaching them the concussion signs to look for on and off the playing field and how to choose the right sport for their child.

The work of Bazzo and his team is being used as a model for other concussion programs implemented at high schools in San Diego County that also involve UC San Diego Health physicians.

"This is a serious topic that needs to be addressed in our community," said Bazzo. "Being part of an academic hospital setting, we are able to apply what we learn from ongoing research done at UC San Diego Health to young athletes and future generations. It's an honor to be part of this movement."

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