Michael Wininger looks to reduce the risk of injury for high school and college football players with a rule change inspired by clinical trials

American football played at high school and college is the third most popular sport in America, according to the Harris Poll. But among the sporting opportunities open to student-athletes, it is the most dangerous.

The National Center for Catastrophic Sport Injury Research (NCCSIR) has collected continuous data for 31 years, covering 115.6 million high school enrollments and 6.3 million college enrollments (person-years; total number of unique students not reported). Of the 11 sports featured in the NCCSIR database, football accounts for 41.6 million (36.0%) and 2.2 million (35.4%) of these student enrollments.

Over the same 31-year period, these 11 sports accounted for 1,673 catastrophic injuries of high school students and 389 catastrophic injuries of college students — "catastrophic" being defined as an injury to the brain or spinal cord. All injuries reported by the NCCSIR involve some disability at the time of the injury, and neurological recovery is either complete or incomplete. Injuries of other types which result in death are not included in the NCCSIR report.

Of the injuries that are recorded by the NCCSIR, American football accounted for 62% and 58% of high school and college injuries — making it by far the most catastrophically injurious scholastic sport both by volume and by person-years.

Reductions in scholastic football injury rates have been achieved through widely adopted rule changes that restrict the ways players can interact during game play, and through continuously evolving safety technology such as helmets and pads. Nevertheless, the rate of catastrophic injury remains high.

Players, parents and coaches might well accept that the benefits of playing the game — the teamwork,