



The NFHS Voice



Surveys: Reduction in Concussions, Improvement in Mental Health of High School Athletes

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Working through its member state associations, the NFHS has been the leader in high school sports for more than 100 years. And while the scope of the NFHS' work continues to expand, minimizing risk of injury and improving general wellness of the millions of student participants remains a top priority.

With about eight million participants in high school sports, NFHS playing rules are written for more individuals than all other levels of sports combined. Risk minimization is paramount to the NFHS rules-writing process for 17 sports and is often the distinguishing factor from other rules codes.

In an effort to maintain that emphasis on risk minimization, the NFHS has funded the National High School Sports-Related Injury Surveillance Study since 2005. And we are pleased to report that the 2020-21 data indicated that

concussion rates continued a downward trend, although the data from this past year may have been affected by the COVID-19 pandemic.

In the nine sports measured by the survey, the overall number of concussions in 2020-21 dropped for the sixth consecutive year, and the total reduction in that timespan has been dramatic. In 2015-16, a total of 367,306 concussions were recorded (competition and practice) in the nine sports (football, boys soccer, girls soccer, boys basketball, girls basketball, girls volleyball, boys wrestling, girls softball and boys baseball) utilized in the survey. This past year, a total of 160,587 concussions were recorded – a drop of more than 206,000 in just six years.

Overall, the injury rate of 1.80 injuries per 1,000 athletic exposures in the 20 sports studied in 2020-21 was lower than the 16-year average of 1.96 injuries since the annual study began in 2005.

In addition to reducing the risk of physical injuries in high school sports, the NFHS is also focusing on mental and emotional wellness of participants in these programs.

In October, the NFHS completed a study funded by the NFHS Foundation titled *“The Impact of Restarting High School Sports on the Health of High School Athletes.”* The study was conducted by the University of Wisconsin and lead researcher Tim McGuine, Ph.D, ATC, as a follow-up to a May 2020 survey during the pandemic when high school activities were shut down nationwide.

The researchers noted that this is the first report to compare physical activity, mental health and quality of life between national samples of adolescent athletes collected early in the COVID-19 pandemic when sports were canceled and during the spring of 2021 when sport participation opportunities had

returned for many student-athletes. Following are the four key findings of the survey:

1. U.S. adolescent athletes who participated in a sport during the 2020-21 school year were less likely to report anxiety and depression symptoms than adolescent athletes reported in May 2020 when sports were canceled.
2. U.S. adolescent athletes who participated in a sport during the 2020-21 school year reported better physical activity and quality of life scores compared to adolescent athletes reported in May 2020 when sports were canceled.
3. Sport participation appears to have a significant positive impact on the health of U.S adolescents during the COVID-19 pandemic.
4. Stakeholders should work to increase sport participation opportunities in the coming months and years as a method to improve the health of adolescents.

The report also stated that the “results are notable because we controlled for other factors that could affect the health of adolescents such as their concern regarding COVID-19, how they attended school and the percentage of students at their school eligible for free or reduced lunch in the analyses.”

As a means of supporting the findings in this survey, the NFHS selected “Student Mental, Emotional and Physical Wellness” as one of five areas of focus in its new four-year Strategic Plan approved by the NFHS Board of Directors in October.

In concert with the NFHS Sports Medicine Advisory Committee, the organization will be developing a strategy and working with other national organizations to better address mental and emotional wellness issues. The NFHS

intends to provide national guidance through development of educational programs and resources, support for research on wellness issues, collaboration and advocacy efforts, and the creation of opportunities for shared learning.

Currently, the NFHS offers a free online course titled “Student Mental Health and Suicide Prevention” through the NFHS Learning Center (www.NFHSLearn.com). With a focus on wellness, including both physical and psychological, the course highlights causes and strategies, and it provides helpful resources.

Without a doubt, one of the most important elixirs to the mental and emotional wellness of high school student-athletes and also the millions of students in the performing arts is the opportunity to simply be involved in these education-based programs. We thank all the coaches, administrators and officials who make these opportunities available every day.

Dr. Karissa L. Niehoff is in her fourth year as executive director of the National Federation of State High School Associations (NFHS) in Indianapolis, Indiana. She is the first female to head the national leadership organization for high school athletics and performing arts activities and the sixth full-time executive director of the NFHS. She previously was executive director of the Connecticut Association of Schools-Connecticut Interscholastic Athletic Conference for seven years.