

NOCSAE Advances Testing on Redesigned Headforms, Next Steps for Youth Football Helmet Standard

LITCHFIELD PARK (Feb. 13, 2024) — On February 2, the National Operating Committee on Standards for Athletic Equipment (NOCSAE), held its Winter Meeting in Litchfield Park, AZ. During the meeting, the Standards Committee reviewed and discussed the status of the development and production of redesigned Nine-Array Headforms for improved testing and data collection. The Committee also discussed next steps for finalizing the proposed youth football helmet standard.

The NOCSAE board of directors reviewed and approved the funding of several research grants, which include studying the effect of protective eyewear mandates on orbital, facial and concussion injuries in high school field hockey, and head impact exposure and effectiveness of headgear in youth flag football.

Scientific Advisory Committee Report

Dr. Robert Cantu, MA, MD, FACS, FACSM, FAANS, NOCSAE vice president, chair of the NOCSAE Scientific Advisory Committee (SAC) and representative of the American College of Sports Medicine, shared key takeaways from the NFL Sponsored Cantu Concussion Center Summit. The Summit gathered clinicians and researchers with experience and expertise in brain injury and long-term cognitive disease to share their findings and identify gaps in current research. Featured sessions discussed the functional changes that accompany athletic concussions, concussion/RTBI prevention and diagnosing Traumatic Encephalopathy Syndrome (TES) and Repetitive Trauma Brain Injury (RTBI) in the living. Consensus statements from the summit include calls to action for:

- Eliminating intentional or avoidable head impact in contact and collision sports;
- Encouraging policies and rules that limit the number, duration and intensity of contact sport practices;
- Reinforcing proper and safer techniques that avoid head contact;
- Implementing rules of play that reduce and penalize intentional or avoidable contact to the head or neck;
- Investigating specific clinical signs and symptoms of TES; and
- Improving the criteria for diagnosing TES through further research.

Nine-Array Headform Redesign Update

NOCSAE has been at the forefront of developing variable-mass biofidelic headforms, which accurately simulate certain biomechanic responses of a human head during impact. NOCSAE headforms are unique in this aspect and allow for a more realistic measuring of human head responses during helmet testing.

The NOCSAE technical director reported on the development status of the enhanced Nine-Array NOCSAE headform, which includes several improvements that enhance the biofidelity and allow for expanded and more sophisticated data collection.

New Youth Football Helmet Standard

The NOCSAE Scientific Advisory Committee (SAC) and technical director are actively advancing finalization of the proposed Youth Football Helmet Performance Standard (ND006-21). NOCSAE has invested over \$1.1 million dollars in research to identify head injury risks and helmet performance parameters that are unique to youth tackle football. The data identified from these multiple research grants was used to inform, develop and publish a youth helmet standard for tackle football, which is currently in a proposed status, waiting to be finalized. Currently, the NOCSAE technical director is coordinating with licensees to provide reduced mass youth ram test equipment and enhanced headforms to facilitate an evaluation of the proposed criteria for the standard. NOCSAE welcomes feedback from all stakeholders as part of the ongoing public comment period and anticipates the Standards Committee could vote to finalize the standard in the next six to twelve months.

NOCSAE Standards Updates

The Standards Committee also revised and/or modified the following standards:

Football Helmet Recertification [ND004 – 24]

- The revision updated exterior warning label language to match ND002.

Batter's/Catcher's Helmet Recertification [ND026 – 24]

- The revision updated exterior warning label language to match ND022/ND024.

Lacrosse Helmet Recertification [ND043 – 24]

- The revision updated exterior warning label language to match ND041.

Catcher's Helmet Performance Specification [ND024 – 24]

- The requested revision will include faceguard and helmet labeling to clearly distinguish “softball only” faceguards from baseball faceguards on catchers’ helmets.

Interested parties are invited to submit comments and questions to NOCSAE Executive Director Mike Oliver at mike.oliver@nocsae.org.

Information about all NOCSAE standards and future Standards Committee meetings is available at nocsae.org. The next NOCSAE Standards Committee Meeting will be held in Cleveland, OH, on July 26, 2024.

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About NOCSAE

NOCSAE, the National Operating Committee on Standards for Athletic Equipment, is an independent and nonprofit standards development body with the mission to enhance athletic safety through scientific research and the creation of performance standards for athletic equipment. Formed in 1970, NOCSAE is a leading force in the effort to improve athletic equipment and, as a result, reduce injuries. NOCSAE efforts include the development of performance and test standards for football helmets, gloves and facemasks, baseball and softball batter's and catcher's helmets, baseballs and softballs, ice hockey helmets, soccer shin guards, lacrosse helmets and facemasks, and polo helmets. NOCSAE is comprised of a board of directors representing stakeholders from a number of groups – including consumer and end users, equipment manufacturers and reconditioners, athletic trainers, coaches, equipment managers, and academic and sports medicine associations. These diverse interests have joined forces in an attempt to arrive at a common goal of reducing sports-related injuries. NOCSAE is a nonprofit, charitable organization supported by individuals and organizations with an interest in athletics. For more information, please visit www.nocsae.org.