

NOCSAE Summer Standards Meeting Update: NOCSAE Advances Work on Proposed Youth Football Helmet Standard and New Large-Grant Research Funding

CHICAGO (July 24, 2023) — On July 21, the National Operating Committee on Standards for Athletic Equipment (NOCSAE) held its Summer Meeting in Chicago, Illinois. During the meeting, the Standards Committee deliberated on the proposed youth football helmet standard and shared updates on next steps for a new round of large-grant funding for research related to athletic equipment safety and in emerging equipment standards. Additionally, consideration was given to commotio cordis and the potential need for additional equipment standards beyond NOCSAE's existing standards for baseball and lacrosse, sports which currently have the necessary protective equipment.

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 an update on a research project commissioned by NOCSAE in 2021 that looked at the interaction with the shoulder pad as a mechanism of concussive injury. It was concluded that implementing a shoulder pad standard would enhance shoulder protection only and further research on its efficacy in preventing concussions was deemed inconclusive and non-beneficial at this time. The SAC expects to review additional research from the NFL later this year and will evaluate further action at that time.

NOCSAE Large-Grant Research Funding

Facilitating research in sports injury and prevention is a core element of NOCSAE's mission. Through its small- and large research-grant programs, NOCSAE funds research grants that drive advancements in medical and scientific knowledge pertaining to sports injury and prevention. Through our research grant programs, NOCSAE provides funding to innovative initiatives that delve into various aspects of sports injury and prevention, paving the way for new insights and improved strategies to inform the standards development process and enhance athlete protection.

For the first time since 2020, NOCSAE has issued a new funding opportunity for our [Large-Grant Research Program](#). NOCSAE had a strong response to our application process this year, which closed at the end of June, bringing in more than 15 submissions for review by the board. The board selected six applications for submission of a full grant application this fall to be evaluated and graded by the Grant Review Committee. Applicants selected to submit their full applications will have until Oct. 31, 2023 to do so.

Revisiting Commotio Cordis

The incident involving Damar Hamlin of the Buffalo Bills in January of this year has propelled discussions around preventing cardiac incidents in sports and the threat of commotio cordis. While commotio cordis may be unfamiliar to many, [NOCSAE has been at the forefront](#) of the research to understand commotio cordis and establishing equipment safety standards to protect against it for lacrosse and baseball, where there has historically been a higher rate of injury. Looking ahead, the committee has emphasized the need to continue to evaluate commotio cordis injury data and consider the need to potentially extend the implementation of commotio cordis safety measures beyond just baseball and lacrosse. NOCSAE will continue to consult with governing bodies and stakeholders across sports to evaluate where additional protection against this injury could be necessary.

New Youth Football Helmet Standard

The NOCSAE Scientific Advisory Committee (SAC) and technical director are actively advancing the development of the proposed Youth Football Helmet Performance Standard (ND006-21). For more than a decade, NOCSAE has invested in research to better comprehend the necessity for a distinct standard for youth football helmets. At the NOCSAE Winter Meeting in January 2020, the Standards Committee voted to initiate the formal development of this much-needed standard. NOCSAE continues to refine crucial criteria and testing protocols for the new standard. Currently, the technical director is coordinating with licensees to provide reduced mass youth ram test equipment and redesigned head forms to facilitate their review 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 12 months.

Nine-Array Headform Redesign Update

NOCSAE has been at the forefront of developing variable-mass biofidelic headforms, which accurately simulate the biomechanical responses of a human head. NOCSAE headforms replicate human head impedance and harmonics resulting from real impacts, enabling more precise testing of helmets and projectiles. In 2020, NOCSAE finalized plans to enhance data collection capabilities of NOCSAE headforms. The redesigned headform molds were delivered to the Southern Impact Research Center in November 2022.

A vital part of any headform redesign includes validation testing. The headforms are currently undergoing validation testing, including performance comparisons with the current NOCSAE headform, as well as comparisons with a standardized Hybrid III headform.

NOCSAE Standards Updates

Under NOCSAE's rules, all standards which have not had action taken for five years must be submitted to a reaffirmation vote. The following standard was reaffirmed:

Standard Projectile Impact Test Method and Equipment Used in Evaluating the Performance Characteristics of Protective Headgear, Faceguards or Projectiles [ND021-18m19a]

- Request to Reaffirm

Modifications to a standard are changes that are only editorial or clarifying in nature. The Standards Committee affirmed these modifications in their current form:

Baseball/Softball Fielder's Headgear Performance Spec [MD029 – 21m23]

- The modification clarifies the number of samples required for testing, five samples per ball type required.

Baseball/Softball Fielder's Face Protector Performance Spec [ND072 – 21m23]

- The modification includes updated numbering in Section 8, Face Protector Labeling.

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 Chicago, Illinois, on July 21, 2023.

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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.

