

#### National Operating Committee on Standards for Athletic Equipment Commissioning research and establishing standards for athletic equipment, where feasible, and

For Immediate Release

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## NOCSAE Winter Standards Meeting Update Report on Youth Football Helmet Standard Research and Evaluation of Potential New Safety Standards

**OVERLAND PARK, Kan. (February 14, 2019)** — Leaders in sports equipment safety convened for the National Operating Committee on Standards for Athletic Equipment (NOCSAE) winter standards meeting in Phoenix on February 1. The Standards Committee acknowledged and discussed modifications to existing standards and evaluated the possibility of creating new standards for flag football head protection and football shoulder pads. In addition, the NOCSAE Scientific Advisory Committee reported on current research initiatives to inform criteria for a youth specific football helmet standard, and NOCSAE's executive director shared updates on efforts to stop sales of counterfeit lacrosse balls, and a proposal to modify the design of the existing NOCSAE headform used for helmet testing.

#### **Revised Football Helmet Performance Standard – New Effective Date**

A key priority for NOCSAE has been the development and implementation of the revised football helmet performance standard which limits rotational accelerations involved in many concussions. At the winter meeting, the Standards Committee voted to move the effective date of the revised football helmet performance standard to November 1, 2019, to align with the pneumatic ram testing standard implementation date. In 2018, the software developer for the pneumatic ram testing standard advised NOCSAE that an error in one of the data analysis algorithms had caused some helmet performance data to be reported inaccurately. The issue has since been successfully resolved, but to allow time to investigate, the Standards Committee voted in 2018 to move the effective date of the pneumatic ram testing standard to November 1, 2019. Even with these revisions, there are several helmet brands that have already been certified by SEI to the revised standard.

#### Youth Football Helmet Standard – Scientific Advisory Committee Update

Dr. Robert Cantu, Vice President NOCSAE and Boston University School of Medicine, Clinical Professor Department of Neurosurgery shared a progress report on NOCSAE's efforts to advance a youth specific helmet standard. For more than ten years, NOCSAE has worked to develop a youth football helmet standard that is evidence-based. NOCSAE's existing football helmet standard applies to players of all sizes, and helmets that are small enough to be worn by "youth players" are required to be tested on a biofidelic head form that replicates the head of a 50<sup>th</sup> percentile 10-year-old male. Currently, there is insufficient data to suggest a distinct helmet mass limit or injury threshold for youth or other similar performance changes would provide more injury protection, or would protect against injury risks not already addressed.

In 2017, NOCSAE convened a Scientific Advisory Committee (SAC) to explore the latest scientific support for a standard. The SAC authorized funding for two research initiatives to determine the magnitude and frequency of head impacts for youth football players ages 5 to 10 and 11 to 14 years old, and identify relationships between head/helmet mass and neck strength for youth players to inform helmet performance requirements. The Neurotrauma Impact Science Laboratory at the University of Ottawa, Ontario, Canada tested potential parameters for a youth football helmet standard, based on observed youth football impact dynamics. Initial findings of this research have been submitted for publication. Virginia Tech is leading the second study to collect biomechanical and clinical data directly from youth football players using instrumented helmets.

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Virginia Tech is currently using pneumatic ram lab tests to simulate data collected in the field — an essential step in developing a possible standard. They are also conducting additional research in California to gather more data related to the 6 to 9 age group and expect to complete that effort by April. More information is available in NOCSAE's Youth Helmet Football Standard Research and Development Update.

### **Updates to Existing Standards**

A key item of discussion at the winter meeting related to the current definition of "smooth" in the performance standard for lacrosse balls. The Standards Committee <u>modified the standard</u> to add "slightly textured" to the description to clarify the intent of the original language which does not exclude a textured ball. The change aligns with U.S. Lacrosse and NCAA regulations which allow a slightly textured ball and does not impact the existing pass/fail critiera for the standard. In connection wth this modification, the NOCSAE board has agreed to present an additional revision for vote this July which technically defines "slightly textured". The <u>revision is available on the NOCSAE website</u> for comment and feedback.

The Standards Committee also acknowledged minor modifications to allow projectile manufacturers to include the date of manufacture on either the packaging or the projectile, and clarifications to the pneumatic ram testing standard.

#### **Potential New Equipment Safety Standards**

NOCSAE is currently evaluating the possibility of developing two new equipment safety standards for flag football head protection and football shoulder pads. Flag football is currently the fastest growing team sport and allows players of all ages to enjoy the game without many of the risks of collision injuries associated with tackle football. Preliminary data suggest that the risk of head and facial injury occur from unanticipated contact with other players and impacts with the ground. NOCSAE is also considering possible criteria for a performance standard for football shoulder pads. While the most common shoulder injuries cannot be prevented by shoulder pads, limited research studies suggest shoulder pads could potentially provide a buffer to other collision dynamics. The Standards Committee voted to continue to explore both areas and consider potential criteria for safety standards.

#### **Proposed NOCSAE Headform Modifcation**

In 2018, representatives from Biocore (administers the NFL helmet rating system), Virginia Tech and NOCSAE met to explore ways to align their different approaches to evaluating helmet performance. While NOCSAE is the only standard used for football helmets, the NFL and Virginia Tech both have proprietary ratings systems. A key area of focus is potentially to have all three organizations use the same headform for helmet testing. Currently, NOCSAE and Virginia Tech both use the NOCSAE headform, while the NFL uses a Hybrid III headform. Following several meetings with Virginia Tech and Biocore, it was decided that certain modifications to the NOCSAE headform would effectively address the issues raised. NOCSAE is currently moving forward with efforts to redesign the headform in several areas.

### **Cheek Flap Products for Batting Helmets**

Over the last year, there has been an increase in public interest in cheek-flap products for baseball batting helmets and an increase in products available on the market. At the winter meeting, NOCSAE reinforced that these products do not meet the NOCSAE standard for face protection because they do not protect the eyes, nose and mouth. This applies to separate add-on products sold by a third party, products designed by a manufacturer to be used with their batter's helmets, and newer helmet models that may include a permanent, built-in cheek-flap.

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NOCSAE is currently working with manufacturers of helmets with built-in cheek flaps to help ensure consumers understand that even when a helmet is certified to the NOCSAE standard for head protection, the cheek-flap portion is not included in that certification, is not tested, and does not meet the NOCSAE standard for face protection. More information is available in NOCSAE's fact sheet on <u>Batting Helmets and Cheek Flap Products</u>.

#### **Counterfeit Lacrosse Balls**

NOCSAE continues to take aggressive steps to stop the sale of counterfeit lacrosse balls by certain vendors, primarily on the internet. Over the last few years, NOCSAE has worked with Amazon, GoDaddy and other online shopping platforms to shut down vendors selling lacrosse balls that have NOCSAE and SEI certification language and logos, but which have not been certified to the NOCSAE standard. NOCSAE warns coaches, parents and athletes to use caution when purchasing lacrosse balls, particularly online. Consumers should not rely on the presence of logos to assess whether lacrosse balls meet the NOCSAE standard. To ensure these products have been certified to the NOCSAE recommends checking the name of the manufacturer in the certified product list available on the Safety Equipment Institute (SEI) website (www.seinet.org). NOCSAE will continue to provide updates on this issue as new information becomes available.

#### **Other Updates**

The technical director also provided an update on round-robin testing at several labs to ensure continuity in test results using the NOCSAE chest surrogate for commotio cordis protector testing. More information about the <u>chest protector performance standard for commotio cordis</u> is available on the NOCSAE website.

More information on all NOCSAE standards is available at <u>www.nocsae.org</u>.

#### 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 <u>www.nocsae.org</u>.

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