

NOCSAE Overview

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, faceguards and gloves
- **Baseball and Softball** batter's and catcher's helmets, batter's helmet faceguards, fielder's headgear and faceguards, chest protectors for commotio cordis and baseballs
- **Lacrosse** helmets, chest protectors for commotio cordis, faceguards and balls
- **Field Hockey** headgear and balls
- **Soccer** shin guards
- **Polo** helmets and eye protectors
- **Ice hockey** helmets and face protectors

NOCSAE standards are adopted by various national and international regulatory bodies for sports, including the NFL, NCAA, National Federation of State High School Associations, International Federation of American Football and USA Football, as well as the United States Department of Defense Education Activity which oversees and regulates military base athletic programs for the children of military families around the world.

NOCSAE standards are created, revised and approved by the NOCSAE Standards Committee, which serves as a consensus body in accordance with the ANSI Due Process requirements for standards development bodies. The standards development process is open to the public, and participation by any interested party is encouraged and facilitated through public meetings and extended comment periods.

NOCSAE Leadership

NOCSAE's board of directors represents diverse interests that have joined forces for the common goal of reducing sports-related injuries. Serving without compensation, NOCSAE's board of directors is comprised of representatives selected by the following organizations:

- American College of Sports Medicine
- American College Health Association
- American Orthopaedic Society for Sports Medicine
- Athletic Equipment Managers Association
- American Medical Society for Sports Medicine
- National Athletic Equipment Reconditioners Association
- National Athletic Trainers' Association
- Sports & Fitness Industry Association
- American Football Coaches Association
- American Academy of Pediatrics
- National Collegiate Athletic Association
- National Federation of State High School Associations

Non-voting board members:

- National Collegiate Athletic Association (NCAA)
- National Federation of State High School Associations (NFHS)

Football Helmet Standards

NOCSAE has established the most rigorous standards for football helmets in the world. Originally developed in 1973, NOCSAE regularly reviews and updates its football helmet performance and testing standards – applying the latest research to better protect the athlete. Since 1973, there have been more than 150 updates to the football helmet standards, including revisions and modifications.

In 2017, the NOCSAE Standards Committee finalized the first-ever football helmet performance standard to address concussion risks from rotational accelerations. This standard incorporates the pneumatic ram test standard revised in 2014 and again in 2018, and includes pneumatic ram impact velocities for helmets that manufacturers choose to test as youth helmets. The new standard took effect on November 1, 2019.

NOCSAE's standards require testing football helmet performance across all levels of impact. Helmets either pass or fail the standard based on their ability to reduce impact forces to the head as measured by a Severity Index (SI) value. Because of the very high level of quality assurance required to pass the test, helmets must score substantially less than 1200 SI on each one of 29 separate impacts at six different standard locations and one random location, including 14 impacts at 12.2 mph on six different locations and one random location, plus four additional impacts at 12.2 mph on two different locations at high temperature. The SI value is a pass/fail threshold and is based on years of scientific research. Once the 1200 SI threshold is met, there is no data to support that a lower SI score reduces injury risk, especially the risk for a concussion.



Research

For more than 20 years, NOCSAE has been a leading source for concussion-specific research funding in sports medicine and science. Since 1995, NOCSAE has devoted more than \$8 million toward concussion research by the foremost experts in sports medicine and science to develop and advance athlete safety.

Funding

NOCSAE is an independent, nonprofit 501(c)(3) organization funded primarily through licensing fees it charges to equipment manufacturers that want to have their equipment certified or recertified to NOCSAE standards. Approximately 75% to 80% of all revenue collected from these license fees is reinvested into education and research to advance the science and safety of athletes. Manufacturers and reconditioners are obligated by a contract license agreement with NOCSAE to maintain detailed quality control and quality assurance programs which include testing randomly selected helmets during production to make sure they meet the NOCSAE standards.

The Role of NOCSAE

NOCSAE sets the standard. Safety Equipment Institute (SEI) certifies equipment. In January 2015, NOCSAE began requiring third-party certification of compliance with NOCSAE standards, in accordance with ANSI/ISO 17065 international guidelines. NOCSAE is the only athletic equipment standards development organization that mandates independent third-party certification of compliance.

NOCSAE has designated SEI as the certifying body for this purpose. SEI is an independent ANSI/ISO 17065 accredited certifying body that specializes in personal protective equipment. The NOCSAE board made this decision in October 2013 following almost two years of discussion, evaluation and planning. The transition to third-party certification was staggered over the course of 2015 based on production seasons for equipment by sport. As of January 31, 2016, third-party certification for all athletic equipment subject to NOCSAE standards has been implemented.

Manufacturers are solely responsible for product warranties. NOCSAE is not involved. Both the manufacturer and SEI as the certifying body have the right, under the NOCSAE standards, to declare a certification void if the certified product is altered after certification and made available for sale. A model is certified in the condition and configuration it is offered for sale to the public. An alteration or addition to that configuration after sale may change the performance characteristics.

Consensus Standards Process

The makeup of the NOCSAE Standards Committee is inclusive of all materially affected interests that may be impacted by its standards. NOCSAE invites anyone who may be impacted by a standard to be involved in its development, including those who represent the sports and medical communities, manufacturers, parents and others. This openness and invitation to participation in the standards development process is intended to comply with ANSI [due process guidelines](#). The NOCSAE Procedures for Adoption and Implementation of Standards and Revisions to Existing Standards requires that a balance of interests always be maintained on the Standards Committee, and these requirements prevent any single interest from dominating the Standards Committee or the development, promulgation, or revision of a standard.

All NOCSAE standards meetings are open to the public. The purpose of holding a public session on standards is to receive data and input from anyone interested in the standards being discussed and considered, and to ensure the process is transparent and open. NOCSAE encourages all interested parties to submit comments, suggestions, objections or other responses to any standards under consideration or on any other standards maintained by NOCSAE, even those that are not on the agenda for a particular meeting.

At the conclusion of each Standards Committee meeting, the NOCSAE board of directors meets to discuss the other business of the organization. Agenda items for these meetings often include evaluation of research proposals and funding, budget, and general business and administrative discussions. No decisions are made with regard to the adoption, creation, revision or amendment to any existing or new standard. Those decisions occur only during the Standards Committee public meeting.