

# NOCSAE

Newsletter

“...To commission research and establish standards for athletic equipment where feasible, and to support and encourage dissemination of research findings on athletic equipment and sports injuries.”

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## THE NATIONAL OPERATING COMMITTEE ON STANDARDS FOR ATHLETIC EQUIPMENT

A Non-Profit Corporation

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### Letter From The Executive Director

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In 1998, NOCSAE continues the leading role it has played in funding research to study the prevention of sports related injuries, and in promoting standards for protective equipment to reduce or even eliminate injuries, without causing substantial or significant changes in the nature of the sport involved.

The adoption of equipment standards is never easy, since all interests must be considered. If players were willing to wear complete body armor, I suspect we could prevent nearly all impact related injuries arising in contact sports. This is not a reasonable or even logical option. Finding the proper balance has always been a challenge in this area. When a sport involves full speed player contact, such as football or hockey, or the use of tools and projectiles such as baseball, lacrosse, or hockey, the risk of injury will always be inherent in that sport. We can hope and strive to

eliminate unnecessary risk, or to reduce the risk through creation and adoption of standards regulating the performance of protective equipment, but we will not likely eliminate all risk.

NOCSAE is currently underwriting research to better understand the degree and nature of the forces involved in football collisions. There is currently very little hard data showing the forces involved in actual game collisions. The technology has not existed which would allow the measurement of acceleration forces in real game tackles and hits. NOCSAE will fund the research necessary to create the technology that would allow these forces to be measured and analyzed.

NOCSAE also continues to improve testing methods and equipment, including modifications to the headform, as well as upgrading the methods by which the test data is recorded and compared.

### NOCSAE Awarded 1997 NFL Charities Grant

The National Football League Charities has once again honored NOCSAE with a \$50,000 grant. This grant will assist us in performing and underwriting further research in the areas of football helmet protection and helmet safety performance. It is our intention to combine with several other nationally recognized laboratories to develop the technology necessary to measure actual game condition impact and acceleration forces. This grant will go a long way to assist us in achieving that success. Our deepest thanks and gratitude are extended to the NFL Charities for their 1997 grant.

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Visit our web site:  
[www.nocsa.org](http://www.nocsa.org)

## Winter Board Meeting Highlights

The NOCSAE Board met in Jacksonville, Florida in January 1998. The Board approved the 1998 budget and made the following determinations:

- formed a committee to study headform replacement and develop a new headform for testing football helmets
- established a meeting in Knoxville for all interested manufacturers regarding the proposed catcher's helmet standard
- agreed to help fund a national sports injury survey by Dr. Fred Mueller, University of North Carolina, Chapel Hill
- authorized general counsel to pursue legal action if necessary against individuals or companies unauthorized to use the NOCSAE seal, logo or trademark
- looked at recent data on pole vaulting injuries and deaths and recommended that the Research Director review existing data from initial product testing of an "all sport" helmet to benefit pole vaulting and other sports

## Research News and NOCSAE Grants

NOCSAE continues to be a major supporter of national research studies about injury prevention in athletes. It does this through its Research Grant Program, managed by Dr. Trey Crisco, Ph.D., of Rhode Island Hospital/Brown University. NOCSAE's grant program aims to achieve a greater understanding of sports injury mechanisms and injury prevention through increased knowledge about the use of protective sports equipment. Since NOCSAE started the external funding of research grants in 1994, over \$375,000 has been awarded to fifteen institutions throughout the United States.

The program gives priority to proposals that focus on recurring injury where the injury is either "catastrophic," "serious," and/or "costly." Initial grant applications are solicited annually by NOCSAE through its Director of Research. The Board then reviews all applications. Those that are considered to be consistent with the mission and present focus of NOCSAE are selected to present full grant applications. A select committee of national experts reviews the completed grant applications, and makes recommendations to the NOCSAE Board of Directors. The Board of Directors makes the final decision as to the amount of funding and duration of the grants.

NOCSAE reviewed fourteen preliminary grant applications for 1998. The Board invited full submissions from four applicants

and will decide on the final grant recipients at the June Board Meeting.

In 1997, NOCSAE awarded two research grants. David B. Burr, Ph.D., Indiana University School of Medicine received funding for the study, "Use of Shoe Orthotics to Reduce Bone Strain Rate." The study seeks to examine strains produced by dynamic, impulsive types of loading, such as jumping. Progress is being made in understanding how orthotic devices can reduce high peak shear strains and will therefore be likely to reduce stress fractures.

Paul F. Vinger, M.D., Tufts University School of Medicine, Vision Performance and Safety Service, was awarded funding for the grant, "Evaluation of Eye Injuries Caused by Baseballs of Varying Hardness." Dr. Vinger and his colleagues at the Automobile Safety Laboratory at the University of Virginia are continuing to study whether softer baseballs may increase eye injuries by intruding more on the eye orbit. They are also examining whether softer baseballs would change the feel of the game for players of varying ages and baseball experience.

If you have questions or would like further information about the research grant application process or ongoing studies, please contact Dr. Trey Crisco at (401) 444-4677, or e-mail [joseph\\_crisco@brown.edu](mailto:joseph_crisco@brown.edu). We also encourage you to visit our web site at [www.nocsae.org](http://www.nocsae.org).

## Letter From The President, Kenneth Stephens, M.D., RPh.

With our second newsletter and my first as President of NOCSAE, our organization continues to broaden its role in disseminating information regarding sports related injury and prevention. Our Board consists of people from nearly every aspect of sports and sports medicine, including neurosurgery, orthopedic surgery, helmet manufacturing and reconditioning, athletic training, coaching and administration. We have a balance of talent that insures all sides are heard and all aspects of a problem are considered when we adopt new standards or amend old ones.

Currently, we are working diligently on a standard for catcher's helmets and masks, and our plans are to have one published by the end of this year.

I encourage each of you to contact Mike Oliver, NOCSAE's Executive Director, with any questions comments or suggestions you may have regarding NOCSAE, or equipment related questions in general. Mike will know the answer to your question, or will direct you to someone who can help you.

Now that our web site is up and running, we are able to make more information accessible. You will find answers to frequently asked questions about NOCSAE, a brief history of the organization, and links to related sites concerned with sports safety issues. We plan to include reprints of NOCSAE sponsored research, copies of all NOCSAE standards and other topical information. We hope you will visit [www.nocsae.org](http://www.nocsae.org) and give us your feedback.

## NOCSAE Standards: Upcoming Releases and Drafts

Release of NOCSAE Doc. 001-98, Standard Drop Test Method and Equipment Used in Evaluating the Performance Characteristics of Protective Headgear and modifications to NOCSAE Doc. 002-96, Standard Performance Specifications for Newly Manufactures Football Helmets, NOCSAE Doc. 004-96, Standard Performance Specifications for Recertified Football Helmets and NOCSAE Doc. 101-96, Equipment Calibration Procedures is expected by July 1998. The new standards, performance requirements and recommended practices reflect comprehensive updates for the methodology and application in the laboratory for manufacturer and reconditioners.

Drafts of the new standard for projectile impact test methods and equipment, the baseball/softball batter's helmets standard and lab procedures, and the baseball/softball catcher's helmets standard and lab procedures are being finalized, with an anticipated effective date of January 1999.

## Technical Support

The NOCSAE recertification test specific software is now on line in many of the NAERA (National Athletic Equipment Reconditioners Association) member locations. All members should be up and running by the end of September 1998 on the new NOCSAE provided software. This new dynamic data acquisition system promises to improve data generation and reporting among recertifying licensees.

NAERA funded the production of a training video to assist their members with installation and use of the new data acquisition software. The video proved to be a big benefit to end users.

During the 1996-97 season covering a 12-month period, more than 30,000 helmets from the field were tested and nearly 1,000,000 were recertified. The data shows that football helmets that have seen an average of 1½ seasons of use will maintain performance levels within those specified by the NOCSAE standards.

For technical assistance with the NOCSAE standards, test methods, performance requirements or test equipment, contact Dave Halstead or Bob Drew at the Southern Impact Research Center, (423) 588-1580.

**NOCSAE**

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Standards for Athletic Equipment

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## 1998 Board of Directors

Only reconditioners licensed by NOCSAE® can recertify helmets. If you have questions regarding a particular reconditioner, please call the Executive Director at (913) 888-1340.

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*President*

University of Cincinnati

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