

ONE HUNDRED THIRTEENTH CONGRESS
Congress of the United States
House of Representatives

COMMITTEE ON ENERGY AND COMMERCE

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December 19, 2014

Dr. James M. Johnston, Jr.
Assistant Professor of Surgery
Department of Neurosurgery
Children's Hospital of Alabama
University of Alabama-Birmingham
1600 7th Street South, Suite JFL 400
Birmingham, AL 35233

Dear Dr. Johnston,

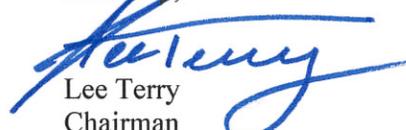
Thank you for appearing before the Subcommittee on Commerce, Manufacturing, and Trade on Thursday, March 13, 2014 to testify at the hearing entitled "Improving Sports Safety: A Multifaceted Approach."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions by the close of business on Monday, January 5, 2015. Your responses should be e-mailed to the Legislative Clerk in Word format at Kirby.Howard@mail.house.gov and mailed to Kirby Howard, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,



Lee Terry
Chairman
Subcommittee on Commerce,
Manufacturing, and Trade

cc: Jan Schakowsky, Ranking Member, Subcommittee on Commerce, Manufacturing, and Trade
Attachment

Additional Questions for the Record

The Honorable Lee Terry

1. You described the Sports Concussion Assessment Tool as part of an examination of an athlete. How accurate is an evaluation of an athlete? Is an evaluation standardized or is there interpretation based on the differences of each individual athlete? How can evaluations be improved?
2. During your testimony you mentioned that recent studies have identified “potential long term health consequences” that are “associated with repeated head impacts.” In medical or research terms, what is the meaning of “associated” regarding how strong the relationship is?
 - a. Does that indicate more research is needed? If so, please explain what research is needed and how it could improve overall safety of sports.
3. What is rotational loading? Why is that important? Can a helmet or piece of equipment reduce rotational loading?

The Honorable Joe Barton

1. The ISO/IEC and ASNI specify that accredited standards must identify normative references that support specific provisions of a standard. In your prepared remarks and in your testimony, you stated that NOCSAE standards should be overhauled in order “to reflect current understanding of concussion pathophysiology and foster improved helmet design.”
2. What specific concussion pathophysiology should be included in helmet standards, and how should that pathophysiology be described for purposes of testing and validation?
3. Panel experts, including you, seemed to agree that there is no scientific consensus for a concussion specific injury threshold, and that much more research and data collection is needed in that area. Without scientific consensus for a concussion specific threshold for either linear or rotational accelerations, how can those be incorporated into a helmet standard?