



U.S. CONSUMER PRODUCT SAFETY COMMISSION  
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October 27, 2015

Mr. Dave Halstead  
Chairman  
ASTM F08.53 Subcommittee on Headgear and Helmets  
Southern Impact Research Center  
304 Dunavant Drive  
Rockford, TN 37853

Subject: Request for a Task Group to develop an ASTM voluntary standard for head impact sensors

Dear Mr. Halstead:

The U.S. Consumer Product Safety Commission (“CPSC” or “Commission”) requests that the ASTM F08.53 *Subcommittee on Headgear and Helmets* form a Task Group (TG) to initiate developing a new safety standard for sensor-based products designed to detect head impacts.\* CPSC staff is aware of an increasing number of sensor-based products that are intended to alert athletes who participate in contact sports, such as football, hockey, and lacrosse, of hazardous head impacts. As the market for these products continues to grow, CPSC staff believes that developing a standard to address basic performance, warnings, and labeling is needed.

Current products are being used to detect and alert consumers of potential concussive and sub-concussive head impacts, even though the injury mechanisms are not fully understood at this time. CPSC staff is concerned that consumers may rely too much on the impact-sensing technologies, such that any incorrect alerts may create a disproportionate consumer response. For example, consumers may decide to disregard sensor alerts if the system records multiple false positives. Alternatively, athletes may decide to continue playing after sustaining a brain injury, if the sensor technology doesn’t correctly register the severity of the impact or the alert threshold is set too high. Over-reliance on, or the disregard of, sensor data could result in an avoidable injury. Although CPSC staff believes that an ASTM standard would improve consumers’ safety, staff would not expect this voluntary standard to be able to effectively address concussive injuries.

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\* These comments are those of CPSC staff, have not been reviewed or approved by, and may not necessarily reflect the views of, the Commission.

Additionally, many sensor products are not clear on what an alert indicates or the limitations. Based on current research, it is clear that not all sensor devices are capable of effectively detecting all impacts in all locations. CPSC staff is concerned that manufacturers are not satisfactorily relaying the proper information to consumers, and that consumers are making health related decisions without being fully informed.

We are requesting that ASTM form a Task Group to initiate developing a standard(s) that would include requirements to standardize warnings, labels, and user instructions associated with these products to better inform consumers on the operation and limitations of head impact sensors. Staff also believes that any standard should include baseline performance requirements that would address alerting thresholds. We recognize the diversity of products available and limitations based on a lack of understanding of injury thresholds. However, we believe that there is enough knowledge and understanding of the products and injuries to develop an ASTM standard.

CPSC staff is encouraged by the interest this subcommittee has shown regarding this product area and will be available for further discussion at the ASTM F08 meeting on November 18 and 19 in Tampa, FL. Standard development for this product area is a high priority for CPSC staff, and staff will actively participate in the ASTM effort. We believe that an ASTM standard could increase consumer safety by ensuring that these products meet performance, label, and warning requirements.

In closing, CPSC staff requests the formation of an ASTM F08.53 Task Group to initiate the development of a new safety standard for sensor-based products related to head impacts. Thank you for the opportunity to work with the ASTM F05.83 Subcommittee on this very important consumer safety issue. If you have any questions or need additional information, please contact me at [rmccallion@cpsc.gov](mailto:rmccallion@cpsc.gov) or 301-987-2222 or Ian Hall at [ihall@cpsc.gov](mailto:ihall@cpsc.gov) or 301-987-2323.

Sincerely,

Rick McCallion  
Program Area Team Lead  
Mechanical, Recreation, Sports, and Seniors

cc: Joe Koury, Staff Manager, ASTM International F08 Committee  
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Rick Greenwald, Vice Chairman, ASTM International F08.53 Subcommittee  
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