

A new high-tech gadget aims to quantify cumulative impacts to the head

By ACSH Staff — March 11, 2014



Sustaining a concussion as a hockey player is not very

unusual. According to [a study](#) ^[1] published in the *Journal of Athletic Training*, about 300,000 high school and college athletes experience concussions each year, although experts believe the actual number is higher. To some extent, part of this growth is the increased sensitivity to the long-term effects of concussions among both athletes and those responsible for their well-being on and off the field.

For this reason, many companies are working to develop high-tech products that can detect concussions instead of simply relying on observation by a player or coach. One of the [newer product](#) ^[2]s, developed by Reebok, is called the Checklight, and consists of a skullcap with an electronic strip and three lights; The light blinks green to indicate no head impact detected, yellow to indicate moderate impact and red to indicate severe impact. The Checklight calculates impact using an assessment based on an accelerometer and a gyroscope.

However, experts caution that these tools may not tell the whole story, as an individual's level of harm depends on his or her specific vulnerability as well. And the Sports Legacy Institute, a non-profit organization whose goal is to limit the number of concussions sustained by athletes, is hesitant to apply a definitive threshold to characterize concussions. Kevin Guskiewicz, an exercise and sport science professor at the University of North Carolina at Chapel Hill who has been studying concussions added, There is no known threshold for concussions. The science hasn't evolved to the point where we can interpret these metrics.

ACSH's Ariel Savransky adds, Even though this may be an imperfect science at this point, it's clear that more must be done to identify concussions to ensure that athletes get proper medical care. Young athletes are often encouraged to play through the pain, which can be very detrimental. This visual indicator may help to encourage appropriate care for these athletes and provides some hope for better health in the world of competitive sports.

Source URL: <https://www.acsh.org/news/2014/03/11/newest-high-tech-gadget-aiming-quantify-cumulative-impacts-head>

Links

[1] <http://www.ncbi.nlm.nih.gov/pubmed/18174937>

[2] <http://well.blogs.nytimes.com/2014/03/10/a-concussion-monitor-to-measure-hard-knocks/?ref=todayspaper>