

ONE HUNDRED ELEVENTH CONGRESS  
**Congress of the United States**  
**House of Representatives**  
COMMITTEE ON ENERGY AND COMMERCE  
2125 RAYBURN HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515-6115

Majority (202) 225-2927  
Minority (202) 225-3641

**MEMORANDUM**

**September 2, 2010**

**To: Members of the Subcommittee on Health**

**Fr: Committee on Energy and Commerce Staff**

**Re: Field Hearing on “Protecting School-aged Children from Sports-related Concussion Injury”**

On Wednesday, September 8, 2010, at 1:00 p.m., the Subcommittee on Health will hold a field hearing entitled “Protecting School-aged Children from Sports-related Concussion Injury” at the Prudential Center in Newark, New Jersey. The legislative hearing will include testimony on H.R. 1347, the “Concussion Treatment and Care Tools Act of 2009”, which was introduced by Rep. Bill Pascrell, Jr. (D-NJ) on March 3, 2009.

**I. BACKGROUND**

Concussions are one of the most commonly reported injuries among the nearly 38 million children and adolescents that engage in organized youth sports and recreation activities in the United States.<sup>1</sup> According to the Centers for Disease and Prevention (CDC), a concussion is defined as a type of traumatic brain injury (TBI) that changes the way the brain normally works. Concussions are caused by a bump, blow, or jolt to the head. They can also occur from a fall or blow to the body that causes the head and brain to move rapidly back and forth.<sup>2</sup>

**a. Statistics**

The majority of sports-related concussion injuries seen in emergency rooms (approximately 65%) occur among youth aged 5-18.<sup>3</sup> The incidence and impact of concussions vary by age group and gender. Children aged 0 to 4 years and older adolescents aged 15 to 19

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<sup>1</sup> CDC, *Head's Up: Concussion in Youth Sport* (Online at <http://www.cdc.gov/concussion/HeadsUp/youth.html>) (Accessed August 30, 2010).

<sup>2</sup> CDC, *Concussion ABCs: Learn How to Respond* (Online at <http://www.cdc.gov/Features/ConcussionABCs/>) (Accessed August 30, 2010).

<sup>3</sup> *Id.*

years are most likely to sustain a concussion and take longer to recover compared to adults.<sup>4</sup> Furthermore, male children aged 0 to 4 years have the highest rates of TBI-related emergency department visits, hospitalizations, and deaths.<sup>5</sup> In every age group, TBI rates are higher for males than for females.<sup>6</sup> According to the American Academy of Pediatrics (AAP), however, female athletes have a higher rate of concussions than boys who play similar sports, though reasons for this are not well understood.<sup>7</sup>

A recent study by the AAP examined concussions in organized youth sports among youth aged 8 to 19.<sup>8</sup> The objective of the study was to characterize emergency room (ER) visits for pediatric sports-related concussions in pre-high school versus high school-aged athletes. ER visits for those aged 14 to 19 more than tripled from about 7,000 in 1997 to nearly 22,000 in 2007.<sup>9</sup> Among children aged 8 to 13, visits doubled from 3,800 to almost 8,000. The findings show that older athletes (aged 14-19) experienced the majority of sports-related concussions (approximately 60%); however, younger children (aged 8-13) represent a considerable portion of sports-related concussions. This study, in conjunction with additional research, prompted the AAP to issue new guidelines on what to do about sports-related concussions, with advice for both parents and physicians.<sup>10</sup>

#### **b. Signs and Symptoms**

Healthcare professionals generally describe a concussion as a “mild” brain injury because concussions are usually not life-threatening and most people with a concussion recover quickly and fully.<sup>11</sup> For some people, however, symptoms can last for days, weeks, or longer and may result in serious health consequences such as impaired thinking, memory problems, and emotional or behavioral changes.<sup>12</sup> Generally recovery may be slower among older adults, young children, and teens.<sup>13</sup> Those who have had a concussion in the past are also at risk of having another one and may find that it takes longer to recover if they experience a subsequent concussion.<sup>14</sup>

Common signs of a concussion that may be experienced by an athlete include headache, nausea or vomiting, balance problems or dizziness, blurry vision, sensitivity to light and noise,

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<sup>4</sup> *Id.*

<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

<sup>7</sup> Pediatrics, *Emergency Department Visits for Concussion in Young Child Athletes* (Online at <http://aappolicy.aappublications.org/cgi/content/full/pediatrics;126/3/597>) (Accessed August 31, 2010).

<sup>8</sup> *Id.*

<sup>9</sup> *Id.*

<sup>10</sup> AAP, *AAP Updates Guidelines on Sport-Related Concussions*, (Online at <http://www.medicalnewstoday.com/articles/199448.php>) (Accessed September 1, 2010).

<sup>11</sup> CDC, *Concussion and Mild TBI*. (Online at <http://www.cdc.gov/concussion/index.html>) (Accessed August 31, 2010)

<sup>12</sup> *Id.*

<sup>13</sup> *Id.*

<sup>14</sup> CDC, *Concussion in Sports*. (Online at <http://www.cdc.gov/concussion/sports/recognize.html>) (Accessed August 31, 2010).

concentration or memory problems, and confusion.<sup>15</sup> Signs of a concussion may also be observed by a coach or trainer. For instance, a coach or trainer may notice that the athlete appears dazed or stunned; is confused about assignment or position; forgets an instruction; is unsure of the score or his/her opponent; shows behavior changes; or cannot recall events prior or after a hit or fall.<sup>16</sup>

According to CDC, “athletes who experience any of the aforementioned signs and symptoms after a bump, blow, or jolt to the head or body should be kept out of play the day of the injury and until a health care professional, experienced in evaluating for concussion, says they are symptom-free and it is safe to return to play.”<sup>17</sup>

### **c. Federal and State Efforts**

The primary federal program directed specifically at preventing concussions among student athletes is CDC’s “Heads Up Concussion.”<sup>18</sup> The program is “intended to provide educational materials for coaches, athletic trainers, athletic directors, parents, and athletes to prevent concussion.”<sup>19</sup> In addition to federal programs, more than 20 states have either passed or are considering legislation addressing concussion guidelines. While state laws vary with respect to targeted group (i.e. coaches, athletes or parents) and frequency of training, they all include return-to-play guidelines related to the prevention and treatment of concussions in school-aged children.

## **II. SECTION-BY-SECTION DESCRIPTION OF H.R. 1347, CONCUSSION TREATMENT AND CARE TOOLS ACT OF 2009**

### **Section 1. Short title.**

Section 1 designates the “Concussion Treatment and Care Tools Act of 2009” or the “ConTACT Act of 2009” as the title of H.R. 1347.

### **Section 2. Findings.**

Section 2 outlines findings about the incidence of sports-related concussions in school-aged children.

### **Section 3. Concussion management guidelines with respect to school-aged children.**

Section 3 amends title III of the Public Health Service Act to direct the Secretary of Health and Human Services to establish concussion management guidelines that address the prevention and management of concussions in school-aged children, including standards for

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<sup>15</sup> CDC, *Concussion in Sports* (Online at <http://www.cdc.gov/concussion/sports/recognize.html>) (Accessed August 30, 2010).

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> GAO, *Concussion in High School Sports*, (Report Number GAO-10-569T) (Online at <http://www.gao.gov/new.items/d10569t.pdf>) (Accessed August 31, 2010).

<sup>19</sup> *Id.*

student athletes to return to play after a concussion. The section also authorizes the Secretary to convene a conference of medical, athletic, and educational stakeholders to establish such guidelines.

The section also authorizes the Secretary to make grants to states for: (1) adopting, disseminating, and ensuring the implementation by schools of the guidelines; and (2) funding implementation by schools of preseason baseline and post-injury neuropsychological testing for student athletes. To carry out these grants, the section authorizes \$5 million for fiscal year 2010 and such sums as necessary for each of fiscal years 2011 through 2014.

### **III. WITNESSES**

The following witnesses have been invited to testify:

#### **Panel One:**

##### **Vic Kapil, MD**

Associate Director for Science  
Division of Injury Response, National Center for Injury Control and Prevention  
Centers for Disease Control and Prevention

#### **Panel Two:**

##### **Nikki Popyer**

Senior  
Marlboro High School  
New Jersey

##### **Joanna Boyd**

Public Education Coordinator  
Brain Injury Association of New Jersey  
North Brunswick, New Jersey

##### **Mike Prybicien, MA, ATC, CSCS**

Head Athletic Trainer  
Passiac High School  
New Jersey

##### **Joel Brenner, MD, MPH, FAAP**

Medical Director  
Sports Medicine Program  
Children's Hospital of The King's Daughters  
Norfolk, Virginia