

ONE HUNDRED FOURTEENTH CONGRESS  
**Congress of the United States**  
**House of Representatives**

COMMITTEE ON ENERGY AND COMMERCE

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October 6, 2016

Mr. Gary Bettman  
Commissioner  
National Hockey League  
1185 Avenue of the Americas, 15th Floor  
New York, NY 10036

Dear Commissioner Bettman:

We are writing to request information on the National Hockey League's (NHL) policies and procedures for the prevention and treatment of concussions and related head injuries. As you know, a growing number of former players have been found to have suffered from long-term complications related to head injuries sustained while playing hockey.

There is significant scientific evidence to support a link between the types of concussive and subconcussive hits inherent to the game of hockey and brain damage. Repetitive hits to the head—even in the absence of the clinical signs of concussion—can have cumulative, long-term effects on brain function and physiology.<sup>1</sup> Researchers have found that athletes who had no observable symptoms of concussion but who nevertheless sustained repeated hits to the head performed worse than their non-athlete peers on memory tests, displayed altered brain function on fMRI scans, and showed evidence of altered brain chemistry.<sup>2</sup>

There is substantial pathologic and clinical evidence of long-term neurological effects—including the development of degenerative diseases like amyotrophic lateral sclerosis (ALS) and

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<sup>1</sup> *Expert Consensus Document: Mind The Gaps—Advancing Research Into Short-Term and Long-Term Neuropsychological Outcomes of Youth Sports-Related Concussions*, Nature (Apr. 2015).

<sup>2</sup> Thomas M. Talavage et al., *Functionally-Detected Cognitive Impairment in High School Football Players Without Clinically-Diagnosed Concussion*, Journal of Neurotrauma (2013); Nicola Marchi et al., *Consequences of Repeated Blood-Brain Barrier Disruption in Football Players*, PLOS One (Mar. 6, 2013); Inga K. Koerte et al., *White Matter Integrity in the Brains of Professional Soccer Players Without a Symptomatic Concussion*, JAMA (Nov. 2012).

chronic traumatic encephalopathy (CTE)—related to contact sports.<sup>3</sup> New research suggests that there is a link between participation in amateur contact sports during youth and the development of CTE.<sup>4</sup> Researchers recently found that, of the brains donated to the Mayo Clinic Brain Bank, close to one-third of the brains of young males who participated in contact sports during youth had CTE.<sup>5</sup> Notably, the Mayo Clinic study found zero instances of CTE in the brains of 198 individuals who had no history of playing contact sports, and neuropathologists studying CTE have similarly never found the disease in brains that were not subjected to repetitive head trauma.<sup>6</sup>

In the normal course of play, professional hockey poses a risk of head injury to its players.<sup>7</sup> Research indicates “a high incidence of concussion” in both professional and collegiate ice hockey.<sup>8</sup> A recent study found that concussions account for two to 14 percent of all hockey injuries and 15 to 30 percent of all hockey head injuries.<sup>9</sup> A study in the Official Journal of the American Academy of Pediatrics found that the overall rate of concussion for youth hockey players is similar to that of youth football players.<sup>10</sup> Studies have also found that the vast majority of concussions in both youth and professional hockey occur from player-to-player contact.<sup>11</sup>

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<sup>3</sup> Ann C. McKee et al., *TDP-43 Proteinopathy and Motor Neuron Disease in Chronic Traumatic Encephalopathy*, *Journal of Neuropathology and Experimental Neurology* (Sept. 2010); Daniel H. Daneshvar et al., *Long Term Consequences: Effects on Normal Development Profile after Concussion*, *Physical Medicine & Rehabilitation Clinic of N. America* (Nov. 2011).

<sup>4</sup> *Evidence Suggests Amateur Contact Sports Increase Risk of Degenerative Disorder*, Mayo Clinic News Network (Dec. 2, 2015); *Brain Damage Study Shows Student-Athletes May Risk Same Injuries as NFL Players*, *Bloomberg Business* (Dec. 1, 2015).

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

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

<sup>7</sup> Jason Izraelski, *Concussions in the NHL: A narrative review of the literature*, *The Journal of the Canadian Chiropractic Association* (Dec. 2014).

<sup>8</sup> *The incidence of concussion in professional and collegiate ice hockey: are we making progress? A systematic review of the literature*, *British Journal of Sports Medicine* (May 3, 2013).

<sup>9</sup> *Concussions in the NHL: A narrative review of the literature*, *The Journal of the Canadian Chiropractic Association* (Dec. 2014).

<sup>10</sup> *Incidence of Concussion in Youth Ice Hockey Players*, *The Official Journal of the American Academy of Pediatrics* (Feb. 2016).

<sup>11</sup> *Incidence of Concussion in Youth Ice Hockey Players*, *The Official Journal of the American Academy of Pediatrics* (Feb. 2016); *An observational method to code concussions in the National Hockey League (NHL): the heads-up checklist*, *British Journal of Sports Medicine* (May 2013).

NHL players face heightened risks of head trauma during in-game fights, which are governed by NHL rules.<sup>12</sup> In 2011, the NHL's former head of player safety noted in an e-mail that it may be "time to propose increases [to] the penalty for fighting."<sup>13</sup> In a later e-mail chain, NHL Deputy Commissioner Bill Daly wrote, "fighting raises the incidence of head injuries/concussions, which raises the incidence of depression onset, which raises the incidence of personal tragedies." You later wrote: "fighting and possible concussions could aggravate a condition."<sup>14</sup>

Despite this candid discussion in e-mail of the dangers of fighting and the related incidence of head injuries, the NHL continues to publicly deny a connection between head injuries and long-term complications such as CTE. In a January 2012 Board of Governors meeting, you contended "that nobody yet really knows with any degree of certainty, or even close to that, whether CTE results from concussions."<sup>15</sup> As recent as July 2016, you stated that "[t]he relationship between concussions and the asserted clinical symptoms of CTE remains unknown."<sup>16</sup>

The publicly available information about NHL's concussion policies raises concerns. The NHL relies heavily upon players to self-report concussion symptoms rather than proactively assessing and monitoring player health.<sup>17</sup> The National Football League (NFL), by contrast, requires that the team physician is "responsible for determining whether the player is diagnosed as having a concussion."<sup>18</sup> Unlike Major League Baseball (MLB), which places players diagnosed with concussions on a mandatory seven-day disabled list, and U.S. Soccer, which recommends that players having suffered concussions be symptom free at rest for at least 72 hours before returning to play, the NHL's 2013-2014 protocol has "no mandatory period of time

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<sup>12</sup> National Hockey League, *Official Rules 2015-2016* (2015) ([www.nhl.com/nhl/en/v3/ext/rules/2015-2016-Interactive-rulebook.pdf](http://www.nhl.com/nhl/en/v3/ext/rules/2015-2016-Interactive-rulebook.pdf)).

<sup>13</sup> *Leaked NHL emails show dramatic differences in opinion on fighting*, SB Nation (Mar. 30, 2016) (the referenced e-mail was sent to Commissioner Bettman, Deputy Commissioner Bill Daly, and Executive Vice President of Hockey Operations Colin Campbell).

<sup>14</sup> *Id.*

<sup>15</sup> *N.H.L. and Players Union Look Ahead to New Labor Deal*, New York Times (Jan. 28, 2012).

<sup>16</sup> *N.H.L. Commissioner Gary Bettman Continues to Deny C.T.E. Link*, New York Times (July 26, 2016).

<sup>17</sup> *Wideman suspension poses hard questions for NHL*, Sports Illustrated (Feb. 4, 2016).

<sup>18</sup> National Football League, *NFL Head, Neck and Spine Committee's Protocols Regarding Diagnosis and Management of Concussion* (accessed Oct. 6, 2016) ([static.nfl.com/static/content/public/photo/2013/10/01/0ap2000000254002.pdf](http://static.nfl.com/static/content/public/photo/2013/10/01/0ap2000000254002.pdf)).

that a player must be withheld from play following a concussion.”<sup>19</sup> Nevertheless, you continue to praise the league’s player-safety measures as the “most proactive.”<sup>20</sup>

Given the greater awareness of the risks posed by repetitive head injuries—as well as the advancing science—the NHL must do its part to reduce the risk of head injuries and to make hockey, at all levels, a safer game. We urge the NHL to take a more active role in setting clear policies that bolster player health and safety.

To assist our inquiry, please provide the following information and respond to the following questions by October 24, 2016:

1. News reports indicate that the NHL plans to release a new concussion protocol for the 2016-2017 season.<sup>21</sup> Please provide the new concussion protocol, and explain how it differs from the previous protocol. Who is responsible for implementing and enforcing the concussion protocol during practices and games? What is the penalty if a team fails to enforce the concussion protocol?
2. How does the NHL document diagnosed concussions—both in games and in practices? What is the average length of time a player diagnosed with a concussion is benched before returning to play? How is a player diagnosed with a concussion monitored over time? What precautions are taken to limit the risks of a subsequent head injury?
3. What recent rule changes have been implemented to reduce the risk of head injury? What was the impetus behind the 2013-2014 rule change, which created the Game Misconduct category of penalties, requiring players who incur two misconducts—such as charging, elbowing, or head-butting—to be automatically suspended for one game?
4. The NHL implemented the instigator rule in 1992, later amended in 1996, which levies a two-minute minor, a five-minute major, and a ten-minute misconduct penalty to a player deemed to be an instigator of a confrontation by the rule’s standards.<sup>22</sup> The penalty also requires “[a] player who is deemed to be the instigator of an

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<sup>19</sup> Major League Baseball, *Collective Bargaining Agreement 2012-2016 Basic Agreement* (2011) ([mlb.mlb.com/pa/pdf/cba\\_english.pdf](http://mlb.mlb.com/pa/pdf/cba_english.pdf)); U.S. Soccer *Recognize & Recover Concussion Initiative Guidelines*, U.S. Soccer (Jan. 2016); National Hockey League, *National Hockey League Concussion Evaluation and Management Protocol* (2013) ([www.scribd.com/doc/306443315/NHL0040498-pdf](http://www.scribd.com/doc/306443315/NHL0040498-pdf)).

<sup>20</sup> *The NHL’s denial of the obvious*, Chicago Tribune (Feb. 18, 2015).

<sup>21</sup> *NHL concussion spotters to have new powers for 2016-2017*, Sports Net (Sept. 9, 2016).

<sup>22</sup> National Hockey League, *Official Rules 2015-2016* (2015) ([www.nhl.com/nhl/en/v3/ext/rules/2015-2016-Interactive-rulebook.pdf](http://www.nhl.com/nhl/en/v3/ext/rules/2015-2016-Interactive-rulebook.pdf)).

altercation in the final five (5) minutes of regulation time or at anytime in overtime” to be “suspended for one game” pending review.<sup>23</sup> What motivated the changes to the fighting rules?

5. In 2011, Rule 48 was broadened to prohibit illegal hits to the head.<sup>24</sup> The rule defines such hits as those “resulting in contact with an opponent’s head where the head was the main point of contact and such contact to the head was avoidable.”<sup>25</sup> What led the NHL to impose more stringent penalties regulating head contact?
6. What new programs, initiatives, and protocols is the NHL considering for the 30 NHL teams to protect players from the risks of repetitive head trauma? What new programs, initiatives, and protocols is the NHL considering for its affiliated development leagues, the AHL and ECHL, to protect minor league players from the risks of repetitive head trauma?
7. How does the NHL work with youth hockey leagues to ensure players and parents understand the risks posed by the game? Does the NHL provide any training or guidance to parents and coaches on how to prevent and treat head injuries?

Your assistance in this matter is greatly appreciated. If you have any questions, please contact Elizabeth Letter of the minority committee staff at (202) 225-3641.

Sincerely,



Frank Pallone, Jr.  
Ranking Member



Gene Green  
Ranking Member  
Subcommittee on Health



Diana DeGette  
Ranking Member  
Subcommittee on Oversight and  
Investigations



Jan Schakowsky  
Ranking Member  
Subcommittee on Commerce,  
Manufacturing, and Trade

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<sup>23</sup> *Id.*

<sup>24</sup> *NHL concussion crisis requires further rule changes*, CBS Sports (Feb. 16, 2013).

<sup>25</sup> National Hockey League, *Official Rules 2015-2016* (2015) ([www.nhl.com/nhl/en/v3/ext/rules/2015-2016-Interactive-rulebook.pdf](http://www.nhl.com/nhl/en/v3/ext/rules/2015-2016-Interactive-rulebook.pdf)).