Young Athletes At Risk: Preventing and Managing Consequences of Sports Concussions in Young Athletes and the Related Legal Issues

Marie-France Wilson

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"After you go through a few of them, no matter how you try and tell your mind things are back to normal, you're never quite the same."\(^1\)

"It's a whole different thing losing your child to a brain injury . . . The kid you knew is dead. Somebody completely different is in the body of the child you knew."\(^2\)

I. INTRODUCTION

The objective of this article is to examine the problem, prevention, and management of sports-related concussions in young athletes.\(^3\) The focus of this paper is young athletes, rather than adults at the amateur and professional levels. There are important aspects of young athletes and sports-related concussions that are unique. First, medical evidence suggests that young athletes are more vulnerable to concussions and have a longer period of recovery than adults.\(^4\) Second, young athletes playing in recreational and school leagues are less likely to go through medical screening prior to

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\(^{3}\) In this paper, young athletes refers to athletes or participants in youth leagues who are between the ages of five and eighteen.

participating and often will not benefit from the presence of a team doctor or trainer when concussions occur. Third, the responsibility of sports organizations, schools, coaches, and health care providers to protect the health and safety of children participating in sports raises special issues when young athletes suffer sports-related concussions.

The paper begins with a brief canvas of the relevant medical evidence respecting concussions and their particular effects on young athletes. This is followed by a discussion of some of the measures taken to prevent concussions from occurring and to avoid the consequent litigation that may result. These measures are non-legislative in nature and include changing sports equipment to make it less dangerous for participants and changing the governing rules, practices, and attitudes in relation to certain high-risk sports to make them safer for participants. In particular, the paper will examine proposed Canadian legislation, which seeks to curb violence in sports such as ice hockey. Many attribute the increase in the incidence of concussions in young athletes to an increase in the violence in the conduct of certain sports.

While measures aimed at preventing the incidence of sports-related concussions in young athletes are a positive development and are to be encouraged, they are not a complete answer to the problem because, at best, these measures can only reduce, but not eliminate, sports-related concussions. It is the unfortunate reality that concussions may be an inevitable result of those sports in which intentional contact among participants is an accepted part of the game. In these sports, the identification of concussions and managing post-concussion events become key considerations.

Thus, after considering the state of preventative measures in relation to sports-related concussions, the paper next focuses on the responsive approach to sports-related concussions in young athletes. It is an approach that, in North America, has centered on the adoption of return to play (RTP) guidelines by sports organizations, schools, and related legislative initiatives. In that connection, in light of the recent United States Congressional Hearings on Head Injuries in Football, as well as the recent rule change on headshots and blindside hits in the National Hockey League (NHL), the paper compares the terms of RTP guidelines that have been adopted for adult athletes at the professional and college levels in North America with those established for

5. See Starkman, supra note 1.
6. See, e.g., Smith, supra note 2.
young athletes by sports associations and schools. This comparison highlights the "trickle-down effect," where policies instituted and rules adopted at the professional and college levels influence those instituted and adopted for young athletes.

As part of the discussion on concussion assessment and post-concussion management guidelines, the paper examines the legal duty of care with respect to young athletes that these guidelines impose on certain persons who administer them such as athletic associations, governing bodies, schools, coaches, and health care providers. This article identifies those guidelines that seem the most effective in preventing further injury to a young athlete who has suffered a concussion and in reducing legal claims against those who owe a legal duty of care to the young athlete. This section also shows that the threat of liability has had a certain self-regulating effect on the various stakeholders in relation to the concussion assessment and management of young athletes but that negligent conduct is more effectively reduced by government imposed change such as mandatory concussion legislation.

This article ends with a discussion of recent concussion legislation that has been enacted in the states of Washington and Oregon and a Senate Bill that proposes a federal law to provide for concussion management in schools that will mandate the implementation of RTP guidelines. This discussion will evaluate the different approaches to post-concussion management embodied in these legislative initiatives and weigh their relative merits and potential for reducing the risk of second-impact syndrome, as well as potential lawsuits involving those who owe a legal duty of care to young athletes.

II. MEDICAL OVERVIEW OF CONCUSSIONS

An overview of the causes and consequences of concussions is essential to understand why there is a growing concern about the effects of head injuries on young athletes. A concussion is defined as "a complex pathophysiological process affecting the brain, induced by traumatic biomechanical forces." A concussion is described as a closed head injury that "occur[s] when different levels of the brain tissue are compressed together, forced to slide and shear

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9. Scott D. Bender et al., Historical Perspectives, in TRAUMATIC BRAIN INJURY IN SPORTS: AN INTERNATIONAL NEUROPSYCHOLOGICAL PERSPECTIVE 3, 7 (Mark R. Lovell et al., eds., 2004).
across each other, or are torn apart." Following a concussion, there is usually a short-lived neurological impairment that will spontaneously resolve itself. While a concussion may result in neuropathological (affecting the nervous system) changes, impairment can be characterized as functional, rather than structural. It is important to note that a concussion is not always caused by a direct blow to the head but can result from impact to the face, neck, or anywhere else that causes an impulsive force to be transmitted to the head. In addition, while loss of consciousness may occur, this is not an essential condition in determining if a person has suffered a concussion. It is estimated that "300,000 sports-related concussions occur annually in the United States." After motor vehicle accidents, sports are the second leading cause of traumatic brain injury among people aged fifteen to twenty-four.

Second-impact syndrome is one type of catastrophic injury that can result from a concussion and can be fatal. This condition is thought to occur when a second concussion is sustained before the symptoms of the last have cleared. Experts believe that individuals with a history of concussions decrease their threshold for sustaining these types of injuries, which increases their future risk of suffering from a more severe concussion. Typically, a young athlete becomes unresponsive anywhere from fifteen seconds to a few minutes following the second impact, due to swelling of the brain tissue (massive edema) or elevated intracranial pressure. Second-impact syndrome has a mortality rate of nearly 50% and a morbidity rate (disabling impairments) of nearly 100%. Not only is the risk of second-impact syndrome of real concern for athletes, they may also suffer from the long-term

11. McCrory, Consensus, supra note 8, at 186.
12. Id.
13. Id.
14. Id. While there have been suggestions that some people are genetically predisposed to severe traumatic brain injury, such as ice hockey players Brett and Eric Lindros, other factors that might come into play are an athlete's style of play, how much playing time they receive (e.g., quarterback), or their age. See Meehan & Bachur, supra note 8, at 117.
17. Bender, supra note 9, at 11.
18. Id.
19. Id.
21. Id.
effects that result from sustaining multiple concussions.

Chronic Traumatic Encephalopathy (CTE) is one such long-term effect.\(^{22}\) It is described as a progressive degenerative disease of the brain, common in athletes and others who have suffered multiple concussions.\(^{23}\) Although the link between boxing and CTE has long been established, recent research undertaken at the Center for the Study of Traumatic Encephalopathy at Boston University has focused on whether other athletes—for example, football players—may be at risk of developing CTE.\(^{24}\) Of the fifty-one confirmed cases from their most recent study, 90% of CTE occurred in athletes who began their careers between the ages of eleven and nineteen, with the first symptoms of CTE observed anywhere from ages twenty-five to seventy-six.\(^{25}\) These symptoms might start with concentration and memory problems, followed by progressive deterioration leading to dementia, including Alzheimer’s Disease or Parkinsonism.\(^{26}\) The study notes that the severity of the ensuing disorder seems to be related to the length of time that a sport was played and to the number of head injuries sustained.\(^{27}\)

Studies of professional players in the National Football League (NFL) and the NHL have revealed the frequency of concussions suffered by players and the devastating cumulative effects that result.\(^{28}\) Professional players would nearly all have participated in their respective contact sports as young athletes, and they were more likely to suffer brain injuries from a young age. This research highlights how early these cumulative effects may have begun. A significant finding from a 2000 study was that many players did not recognize that they had suffered a concussion, despite a growing public awareness about head injuries.\(^{29}\)

This growing awareness is exemplified by the experts who testified at the 2009 Congressional Hearing on Legal Issues Relating to Football Head

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\(^{23}\) Id. at 709-10.

\(^{24}\) Id.

\(^{25}\) Id. at 710.

\(^{26}\) Id.

\(^{27}\) Id. Mental health issues, such as major depression, are another long-term consequence of concussions in athletes. See SOLOMON, supra note 20, at 101. See also Starkman, supra note 1 for a personal account of these mental health issues.

\(^{28}\) See SOLOMON, supra note 20, at 121-22. See also Starkman, supra note 1.

\(^{29}\) J. Scott Delaney et al., *Concussions During the 1997 Canadian Football League Season*, 10 Clinical J. Sport Med. 9, 9, 11 (2000) [hereinafter Delaney, Canadian Football].
Injuries. These experts recommended that professional leagues, like the NFL, do more to protect the health and safety of their players and to lead by example with respect to amateur leagues.

Dr. Robert Cantu, one of the experts who testified at the Hearing, stressed that all of the brains in the study of former NFL players who played past the age of twenty-five had full-blown CTE. Cantu also found the beginnings of CTE in the brain of an eighteen year-old high school athlete. Another study concluded that football and ice hockey players who suffer just one concussion may see the effects on their brains thirty years later.

These discoveries seem to justify the growing concern about concussions in youth athletes. Evidence of the lasting and debilitating effects that these injuries may have on young athletes emphasizes the importance of taking preventative measures to curb the incidence of sports-related concussions and adopting effective concussion identification and post-concussion management procedures. In this sense, this issue is not confined to professional athletes, and as the next sections will discuss, young athletes may in fact face greater challenges in concussion prevention and management.

A. Incidence of Sports Concussions in Young Athletes

Sports concussions are common in young athletes. Their incidence is not limited to contact sports such as football and ice hockey. Soccer and basketball also have high rates of head injuries, with girls sustaining more concussions than boys playing the same sport in high school. “Full-contact” sports, such as football, ice hockey, and wrestling, and “partial-contact” sports, such as soccer and basketball, have the highest incidences of concussions.

30. Cantu, Congressional Hearing, supra note 7, at 66-73.
31. Id. at 68-73.
32. Id. at 66-71. Researchers have also recently diagnosed a former NHL player, Reggie Fleming, as having suffered from CTE after sustaining an estimated twenty concussions over his career and who later suffered from strokes and Parkinson’s. Not only did Fleming play without a helmet, he also started his ice hockey career at a young age and was likely exposed to head injuries over a long period of time. See Allan Maki, Former NHLer Had Condition Linked to Concussions at Time of Death, THE GLOBE AND MAIL, Dec. 17, 2009, http://www.theglobeandmail.com/sports/ice hockey/former-nhler-had-condition-linked-to-concussions-at-time-of-death/article1404651/.
33. Cantu, Congressional Hearing, supra note 7, at 70.
35. Meehan & Bachur, supra note 8, at 119.
36. Id. These numbers did not include ice hockey and lacrosse, but an injury report from the NCAA notes that men and women’s ice hockey, as well as men’s lacrosse, are among the sports with the highest rates of concussions per game. See David Klossner, NCAA, 2009-2010 NCAA Sports Medicine Handbook, 52 (20th ed. 2009), available at http://www.ncaapublications.com/product downloads/MD10.pdf. In high school sports played by both sexes, girls had a higher rate of
According to a report conducted by The New York Times, at least fifty high school-age or younger football players in more than twenty states have been killed or have sustained serious head injuries while playing since 1997.37

Children between the ages of six and fourteen are at a higher risk of head injuries than any other age group, with closed-head trauma being the leading cause of fatalities among children and adolescents.38 A recent United States study concluded that, between 2001 and 2005, children between the ages of eight and nineteen made 502,000 emergency room visits for concussions, half of which were sports-related.39 This study also noted that the number of emergency room visits for sports-related concussions had increased during the ten-year study period, despite a decline in sports participation.40 Brain swelling and cerebral edema occur more frequently in children with head injuries, and because they are still developing, the structure of their brains may be damaged, with evidence not always observable until years later.41

Determining the accuracy of these statistics on head injuries in youth presents a unique challenge. In particular, identifying a sports-related concussion is said to be one of the most difficult tasks faced by sports medicine professionals since there is no biological marker or test for an accurate diagnosis.42 This diagnostic difficulty is exacerbated by the tendency of young athletes to underreport or conceal symptoms of concussions in order to return to play more quickly.43 For example, a study carried out on high school football players found that unreported concussions influence the accuracy of findings on the total rate of concussions sustained.44 Of the players who reported concussions during the studied football season, only

37. Alan Schwarz, Silence on Concussions Raises Risks of Injury, N.Y.TIMES.COM, Sept. 15, 2007, http://www.nytimes.com/2007/09/15/sports/football/15concussions.html. See also SOLOMON, supra note 20, at 14 (describing a study of United States high school sports fatalities, excluding football, found that, of the 138 recorded deaths between 1982 and 1997, the highest numbers were in: track and field (39), wrestling (33), baseball (28), gymnastics, (12) swimming and basketball (7 each), and lacrosse (1)). This is contrasted with the total number for college during same period, 33 fatalities, with track and field and ice hockey at the top of the list. Id.

38. Danov, supra note 10, at 292-93, 297.


40. Id. at e554.

41. See Danov, supra note 10, at 292-93, 299.


43. Id. at 13-14.

44. Id. at 13.
47.3% reported the event, with the most common justification being that the athlete did not feel that the injury warranted medical attention, followed by not wanting to leave the game.45

The researchers note that hiding symptoms not only makes it challenging for sports medicine professionals to diagnose and manage sports concussions, it also means that athletes put themselves at risk of catastrophic injuries associated with second-impact syndrome.46 In this sense, experts believe that physicians, coaches, athletes, and parents should be made aware of the risks in order to properly implement RTP guidelines.47 The incidence of concussions in young athletes, their proclivity towards concealing injuries or simply not recognizing symptoms, as well as the possible long-term effects associated with head injuries are all good reasons why measures aimed at preventing concussions in young athletes from occurring in the first place should be encouraged. While not a panacea, preventative measures are an important first step in mitigating the problem.

III. PREVENTION OF THE INITIAL INJURY

Concussion assessment and management procedures involving RTP guidelines and legislative changes are intended to protect young athletes who have suffered a concussion from further injury. Preventative measures seek to prevent these injuries from occurring in the first place and the focus is on change—changes in rules and policies governing youth sport that reduce the incidence of concussions. The impetus for these changes is plain enough. There is an increased public awareness respecting the threat posed by sports-related concussions, particularly in young athletes. The resulting concern of the general public and, perhaps more important, of parents has put increasing pressure on governments, sport organizations, and their governing bodies to take preventative steps to reduce concussions in young athletes.48

Although some may argue that permanent injuries and deaths from concussions in youth athletes have not reached epidemic proportions, evidence at the Congressional Hearings, as well as countless studies and RTP guideline recommendations by experts in the field of head injuries, supports the case that concussions in young athletes are a serious problem and that action is needed to protect them from the potentially catastrophic or fatal consequences of these

45. Id. at 13, 15.
46. Id. at 15.
47. See id. at 16.
injuries. Concussions fall into that rare, but tragic, category of sports-related injury—when they occur, they sometimes do not heal. An athlete has only one brain, and concussive damage when suffered cannot always be repaired, even over time. As noted, studies have reported that the cumulative effects of head injuries are linked to conditions such as CTE, which can have devastating effects as a person ages. Where young athletes engage in sports, especially those in which aggressive contact is an integral part, there is always some risk of injury, including concussions.

If young athletes are to enjoy the benefits of participating in organized sports, they must be allowed the freedom to play and compete, and injuries are an incidental and necessary cost of that participation. That is not to accept, however, that the free pursuit of the game should take priority over the safety of the young athletes participating in it. To the contrary, sports organizations should attach the highest priority to ensuring the safety and well being of young athletes who participate in sporting events and should adopt preventative measures to minimize the risk of injury. The need for preventative measures is especially true in the case of the threat posed by concussions. To date, the preventative measures adopted by sports organizations and their governing bodies to avoid the incidence of concussions in young athletes focused on changes to equipment, rules, and attitudes, and each of these measures is considered in turn.

A. Improved Equipment

Not surprisingly, a key preventative measure has been a renewed focus on sports equipment, particularly headgear worn by young athletes. Some argue that injuries, such as concussions, would be reduced if young athletes participating in contact sports such as football and ice hockey had improved athletic gear, such as better helmets. The evidence in support of that argument is not that compelling. In fact, many experts note that, while helmets offer important protection to athletes engaged in sports, “serious brain injury can still occur even when a helmet is worn.” At present, there is no such thing

49. See, e.g., Cantu, Congressional Hearing, supra note 7.
50. See McCrory, Consensus, supra note 8, at 186.
as a concussion-proof helmet.\textsuperscript{53}

Studies have also found that, "for sports such as soccer, Australian football, and rugby, no sport-specific helmets have been shown" to reduce the rate of concussions.\textsuperscript{54} In addition, the use of mouth-guards may help to prevent dental injuries, but there is only limited evidence showing that they protect athletes from concussions.\textsuperscript{55} More recently, specially designed headbands have been shown to decrease the rate of concussions caused by head-on-head collisions in youth soccer.\textsuperscript{56} It is not yet clear if these headbands would have any positive effects in full-contact sports such as football or ice hockey. While helmets and mouth-guards do prevent superficial injuries, their use by young athletes has been shown to lead to more aggressive or dangerous behavior, which increases the risk of head injuries.\textsuperscript{57} In fact, a study recorded an increase in the number of neck and spinal injuries with the introduction of the facemask in ice hockey, with similar findings for football injuries once face masks were introduced.\textsuperscript{58}

With respect to some sports, such as ice hockey, it has been argued that a somewhat perverse result of equipment improvements aimed at preventing injuries to other body parts has increased the risk of head injuries.\textsuperscript{59} As armor-plated elbow and shoulder pads have evolved to provide better protection for elbows and shoulders, an unintended result has been a quantum increase in the force of body checks to the head, where the reinforced elbow or shoulder of the checking player strikes the head of the checked player.\textsuperscript{60}

\textbf{B. Rule Changes}

A second preventative measure that has promise for reducing concussions

\begin{itemize}
\item \textsuperscript{53} Laura Purcell et al., \textit{Identification and Management of Children With Sport-Related Concussion} 11 PEDIATRICS CHILD HEALTH 420, 423 (2006) [hereinafter Purcell, \textit{Identification and Management}].
\item \textsuperscript{54} SOLOMON, \textit{supra} note 20, at 108.
\item \textsuperscript{55} \textit{Id.}
\item \textsuperscript{56} See Delaney, \textit{Protective Headgear, supra} note 51, at 110 (2008). \textit{See also} C. Whithnall et al., \textit{Effectiveness of Headgear in Football}, 39 BRIT. J. SPORTS MED. 140, 147 (2005).
\item \textsuperscript{57} See Paul McCrory et al., \textit{Can We Manage Sport Related Concussions in Children the Same as in Adults?} 38 BRIT. J. SPORTS MED. 516, 517 (2004) [hereinafter McCrory, \textit{Concussions in Children}].
\item \textsuperscript{59} See Charles H. Tator, \textit{Concussions are Brain Injuries and Should be Taken Seriously}, 36 CAN. J. OF NEUROLOGICAL SCI. 269, 269 (2009).
\item \textsuperscript{60} \textit{Id.}
\end{itemize}
in young athletes involves changes to the rules governing the conduct of the games. In that connection, it remains an unfortunate fact that rule changes made at the amateur sports level often follow changes first made at the professional sports level. Unfortunate in the sense that the rules governing the conduct of sports at the professional level are not necessarily an appropriate model for the rules that should govern sports at the amateur level, particularly where young athletes are the participants. A case in point is the long-standing debate about the right age at which young athletes should be permitted to engage in body checking in ice hockey. Body checking is a technique, which is permitted in the rules of ice hockey, where a defensive player makes bodily contact with an offensive player in possession of the puck for the express purpose of causing the offensive player to lose possession of the puck. Body checking in ice hockey has been identified as the cause of between 50% and 86% of all injuries of young athletes participating in minor ice hockey leagues. A study of British Columbia ice hockey players showed that, when body checking was introduced at age fourteen, the average age at which the player would suffer his or her first concussion was fifteen.

Currently, Hockey Canada, the governing body for the 570,000 registered ice hockey players in Canada, allows nine out of its thirteen branches to start teaching body checking at the Peewee level (ages eleven and twelve) and three at the Atom level (ages nine and ten), while the Quebec branch prohibits body checking until Bantam (ages thirteen and fourteen). Those in favor of introducing body checking at a young age argue that this is the best way to teach the proper skills to young players, so that they can safely deliver and

61. See Schmenner, supra note 48.

62. In some cases, however, the predilection of amateur ice hockey organizations to only make rule changes that have first been made by the NHL is not a bad thing. When the NHL introduced tougher rules designed to eliminate body checking an offensive player in possession of the puck from behind, these rules were dutifully followed by amateur ice hockey organizations. Steven Chase & Eric Duhaatschek, Taking Action on Ice Hockey Headshots, THE GLOBE AND MAIL, Jan. 26, 2010, http://www.theglobeandmail.com/sports/ice hockey/taking-action-on-ice hockey-headshots/article1445350/. It seems likely that the adoption of these rules was an important step in helping to prevent sports-related concussions.

63. In this way, it is similar to throwing a block in a football game, except that, in ice hockey, a body check can only be made when the offensive player has possession of the puck. See id. Body checking is defined as a technique allowing a player to make contact with another player who is carrying the puck. Id. This differs from body contact, a technique used to legally block or impede the progress of a puck carrier, for example, by taking away a skating lane through angling or by pinning an opponent to the boards. See id.

64. Id.


66. Id. at 124.
take hits once contact becomes more intense as they get older. However, research indicates that, among eleven-year-olds, the rate of injuries increases significantly after body checking is introduced. Furthermore, learning this skill at a young age is not found to reduce a player’s rate of injury as he or she ages but simply prolongs their risk of exposure to injury.

In determining whether body checking should be eliminated in youth ice hockey, the Canadian Academy of Sports Medicine (CASM) has adopted a hard-line approach, stating that the risks associated with body checking make it clear that it is unnecessary at the minor league level. CASM recommends that it be eliminated from all levels of play in minor ice hockey, except for elite leagues where young athletes have the potential to play at the professional and international amateur levels. Another approach would be to ban body checking until the age of seventeen or eighteen when most players have completed their physical growth. The American Academy of Pediatrics (AAP) recommends limiting the amount of body checking for any athlete under the age of fifteen, along with an emphasis on improved sportsmanship and fair play.

In response to concerns about the number of serious concussions suffered by its players in recent years, in the spring of 2010, the NHL implemented new rules that prohibit headshots and blindside hits to the head. The fact that the NHL implemented these rules without its normal long review and consultative process reflects the amount of pressure that it felt on this issue, given the wide media coverage of sports-related concussions. It also reflects the growing body of scientific evidence that these concussions represent a serious threat to the long-term health of NHL players. These rules changes, which have been implemented by professional and amateur sports leagues, signal a better understanding of the dangers of sports-related concussions and

67. They also point to the fact that it is an important skill that allows players to take control of the puck, creates scoring chances, and helps with defensive positioning and coverage, as teams often have a checking line that plays against a top scoring line. See id. at 125.
69. Marchie & Cusimano, supra note 65, at 126.
70. King & Leblanc, supra note 68, at 163.
71. Id.
72. Marchie & Cusimano, supra note 65, at 126.
73. AAP, Safety, supra note 58, at 657.
74. NHL, Rule Prohibiting Lateral, Back-Pressure or Blind-Side Hit to Head Will Take Effect, http://www.nhl.com/ice/news.htm?id=522691 (last visited Apr. 3, 2010). These rule changes have already been implemented by the International Ice Hockey Federation (IIHF) and the Ontario Hockey League (OHL), and Hockey Canada will discuss player safety during its summit scheduled for the summer of 2010. See Chase & Duhatschek, supra note 62.
are a welcome development.

C. Changes in Attitude and Behavior

Changes to equipment and rules governing the conduct of sports events are important developments in preventing the incidence of sports-related concussions in young athletes and evidence a greater awareness on the part of sports leagues and their governing bodies to the inherent dangers of concussions. Another important preventative measure, however, is the need for a fundamental behavioral change in the attitude of coaches, managers, and others directly involved in youth sports, as well as that of young athletes themselves, with respect to sports-related concussions. For their part, coaches, managers, and others must recognize, in a clear and transparent manner, that sports-related concussions are serious and potentially-life threatening injuries. They must take assertive steps to prevent the incidence of concussions, starting with the conduct of their practices and training routines. As important, they must be vigilant and attentive in the course of games to the possible occurrence of concussions and take prudent action in response. Stated simply, the attitude that the incidence of concussions is a regular part of the game—that the player has just had his or her “bell rung”—and that it is not a problem is unacceptable conduct.

Perhaps an extreme story, but recently, a Texas Tech football coach was accused of locking a player in an equipment room.75 This action was apparently punishment meted out by the coach when told by medical staff that the player had suffered a concussion and needed to rest and avoid sunlight.76 The allegations are unproven and under investigation, but the story, if true, serves as a rather extreme example of the lack of understanding exhibited by some coaches and managers respecting the risks posed by concussions to the athletes under their charge. As noted, with respect to management of the post-concussion period, for RTP guidelines to be effective, players must be candid with coaches, managers, and others about their head injuries. If a young athlete is not sure how these people will react to the disclosure of a possible concussion, the young athlete may be less inclined to report it.

The required changes in behavior and attitudes in relation to concussions in young athletes may best be fostered by such changes in professional leagues. If professional leagues and athletes become more candid and forthright about reporting concussions and the need to manage the post-

76. Id.
concussion period properly before professional athletes return to play, this may facilitate a change in behavior in amateur leagues and young athletes. As noted, professional leagues and athletes serve as important role models for amateur leagues and young athletes. The new NFL concussion RTP guidelines recognize the part the NFL plays as a role model for amateur football, highlighting the importance of improved equipment, education, and rules that will make football safer by setting “an important example for players at all levels of play.”

The enlightened approach of the NFL in this respect is in contrast to that espoused by Colin Campbell, the NHL’s Senior Vice President and principal disciplinarian. Campbell recently expressed his belief that some NHL players use concussions as an excuse to get additional insurance or to be paid an extra year on their contracts.

The prevention of the incidence of concussions in young athletes requires behavioral and attitudinal changes in the way that young athletes play the game. Competitive sports require a degree of intensity and aggression on the part of participants, but this intensity and aggression must be controlled and not exceed acceptable limits. In particular, the aggression must not reflect an intention to hurt or injure an opponent. Campbell has described the need to “sell hate” in order for contact sports to be marketable. This is an unfortunate notion, and even if it has any relevance in the “marketing” of professional sports, it should have none for youth sports. Youth sports do not have to be marketed—the focus of youth sports is participation by young athletes. There is no need in youth sports to foster “hate” towards an opponent. Encouraging that attitude in young athletes may only increase the potential for serious and needless head injuries.

Campbell’s comments are intended to downplay concerns about concussions in professional ice hockey and to justify violence as a necessary element to keep fans interested. Even if his attitude and views are considered to be appropriate in relation to the NHL (and other professional sports leagues), and a strong and compelling case can be made that they are not, it seems clear that they should have no currency in relation to youth sports. While a professional athlete, to some degree, accepts the risk of being seriously injured during play, can the same be said of a young athlete? A review of the NHL’s concussion policy helps to illustrate the different factors

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78. See Starkman, supra note 1.
79. See id.
80. Id.
that may come into play for a RTP decision involving a professional athlete. The head of the NHL’s neuropsychological testing program describes the decision to allow a concussed player to return to play as a type of risk-benefit analysis, weighing factors such as the player’s role on the team and the importance of the game in question. At the college level, although the NCAA promotes individualized RTP evaluations of concussed players, much like the NHL’s policy, those making RTP decisions will not only consider concussion history and severity but factors such as the player’s position on the team and the “overall ‘readiness’ of the athlete to resume play.”

While one may question the relevance of these non-health considerations, even at the professional or collegiate level, they should be given no weight whatsoever in the case of young athletes. It seems singularly inappropriate in the case of a young athlete that the post-concussion management process should take anything into account other than the health and safety of the young athlete. Stated simply, none of the importance to the success of the team, the small chance of receiving a scholarship, or the even smaller possibility of playing professionally should be relevant factors in determining whether a concussed young athlete should be permitted to return to play. There should be a fundamental change in attitudes such that no value is attached to a young athlete “playing hurt.” Young athletes must be taught that they can embody the virtues of a team player—dedication, commitment, and self-sacrifice—without compromising their health and safety.

1. Sports Violence

In Canada, the incidence of concussions in amateur and professional sports is viewed as being primarily attributable to the unacceptably aggressive or violent behavior of players. For some, the appropriate response is criminal prosecution—the notion that what is criminal behavior on the streets is no less criminal behavior when it occurs in a sports arena. For others, particularly

81. See Mark R. Lovell, Neuropsychological Assessment of the Professional Athlete, in SPORTS NEUROPSYCHOLOGY: ASSESSMENT AND MANAGEMENT OF TRAUMATIC BRIAN INJURY 176, 182-83 (Ruben J. Echemendia ed., 2006) (discussion of the NHL’s concussion policy with an explanation that, while the league prefers to have individual team doctors make RTP decisions based on a number of factors, a neuropsychological evaluation is recommended before returning to play).

82. See id. See also Concussion Warnings too late for N.J. Athlete: Plevretes Family Hopes to Raise Awareness of Second-Impact Syndrome, NBCSPORTS.COM, Dec. 29, 2009, http://nbcsports.msnbc.com/id/34623555/ns/sports-college_football/. A college football player wins $7.5 million settlement against the university after sustaining second-impact syndrome following improper treatment by the school’s health center. Id. Interestingly, the University has since eliminated the football program, though they claim that this was done for unrelated reasons. Id.
those involved in sports leagues, self-regulation, rather than criminal prosecution, is the proper response. To date, no government in Canada has proposed legislation to deal with sports-related concussions. Notwithstanding, as a result of the increase in violence in ice hockey and resulting concussions and other injuries, some Canadian politicians have urged governments to act on the basis that what is involved is a health and safety issue that can only be addressed by legislation.\textsuperscript{83} Member of Parliament Glenn Thibeault called for a Royal Commission on violence in sports as the appropriate response to evidence of the serious threat posed by sports-related concussions.\textsuperscript{84} He cited as an example the violent head shot given by Patrice Cormier to Mikael Tam in the Quebec Major Junior Hockey League (QMJHL).\textsuperscript{85}

Other Canadian politicians (including former NHL player Ken Dryden and NHL coach Jacques Demers) have also raised concerns about the tolerance of headshots in ice hockey and whether the Canadian government should intervene with legislation.\textsuperscript{86} The purpose of the Commission would be a detailed study of the issue, with interested parties such as governing bodies, coaches, athletes, parents, and sports medicine professionals allowed to voice their opinions on the subject.\textsuperscript{87} This ongoing pressure by politicians, together with constant media coverage and medical expert opinions, contributed to the recent implementation of the rule banning headshots in the NHL.

These actions reflect a shift in attitudes and rules aimed at preventing concussions in players. While this type of preventative action is a positive development and is to be encouraged, sports-related concussions in young athletes are inevitable. This is particularly the case in those contact sports, such as ice hockey and football, where aggressive contact is part of the game. Thus, it is important that, in addition to preventative measures, there must be an increased focus on concussion assessment and post-concussion management to deal with the inevitable sports-related concussions that will occur in young athletes.

\textbf{IV. CONCUSSION ASSESSMENT AND MANAGEMENT}

Preventing concussions from occurring in the first place would be the

\textsuperscript{84} Id.
\textsuperscript{86} See generally id.
\textsuperscript{87} See id.
ideal solution for protecting the health and safety of young athletes. As well, the elimination of concussions by preventative measures would avoid the spate of lawsuits aimed at athletic associations, health care providers, schools, and coaches. Unfortunately, the reality is that, even with enhanced efforts aimed at prevention, it is inevitable that young athletes will still sustain sports-related concussions. To respond to that reality, it is critical that more effective concussion assessment and post-concussion management procedures be established to ensure that concussions are promptly identified and better RTP decisions are made in relation to young athletes. As we will see, while uniform concussion guidelines have been recommended and adopted by some professional leagues outside of North America and while the Zurich Consensus Statement on Concussion in Sport mentions that its RTP guidelines are applicable for athletes ages ten and up, there are no uniform guidelines for the identification or post-concussion management of sport-related concussions for young athletes in North America. The absence of uniform guidelines is a stark testament of the failure of the applicable governments and sports associations to take concerted and consistent action to address the very real threat to young athletes posed by sports-related concussions. The consequences of the patch-work quilt of RTP guidelines that have developed is that the danger of second-impact syndrome is ever present and that persons who are involved in RTP decisions, which are made in respect of young athletes, continue to expose themselves to potential claims for legal liability.

In the sections of the paper that follow, the RTP guidelines that have been implemented and the legal duties of care owed by persons responsible for making RTP decisions on behalf of young athletes are examined.

A. Return to Play Guidelines and Legal Duties of Care

1. General

RTP guidelines are tools that assist coaching staffs and medical professionals in understanding the proper techniques to identify concussions and to deal with post-concussion management. These guidelines are primarily used in the initial sideline assessment of an injured athlete but also establish steps for the safe recovery and eventual return to play of the athlete. It is important to understand the types of guidelines that have been developed, particularly for young athletes.

89. See id. at 112.
RTP guidelines for athletes have been established by various organizations and governing bodies over the years. In North America, these include the Cantu, Colorado Medical Society, and American Academy of Neurology RTP guidelines. The RTP guidelines that have been established are by no means uniform in their basic parameters and approach. For example, the basic RTP recommendations in these guidelines as to period of time that an athlete should be withheld from practice or competition following a head injury ranges from twenty minutes to one week. To remedy this and other inconsistencies in the existing RTP guidelines, an international panel of experts in the sports medicine and neurological fields has gathered on three occasions to develop a consensus statement on uniform RTP guidelines for sport-related concussions. The latest effort, already mentioned, is the 2008 Zurich Consensus Statement on Concussion in Sport. This Consensus Statement recommends that RTP guidelines adopt an individually determined and graduated RTP protocol under which an athlete who has suffered a concussion not begin any activity until the athlete is asymptomatic, at which time the athlete starts with light aerobic exercise, gradually progressing to participation in full contact play as long as no symptoms arise. The time period between these progressive steps is, on average, twenty-four hours, but the athlete must return to the previous step if any symptoms occur. The Consensus Statement also contains a Sport Concussion Assessment Tool (SCAT2) which sets out a standardized method for use in concussion assessment of athletes as young as ten years old. The Consensus Statement expressly discourages the same day return to play of any athlete who suffers a head injury.

90. Id. at 115.
91. See id.
92. Id. at 112, 116-17.
93. See McCrory, Consensus, supra note 8, at 185.
94. Id.
95. Id. at 188.
96. Id.
97. Id. at SCAT2 1. This assessment tool includes sideline assessment tests such as the Glasgow Coma Scale (GCS), Maddock’s questions, and the Standardized Assessment of Concussion (SAC). The GCS is a short three to fifteen point screening scale used to test eye, verbal, and motor responses. See Solomon, supra note 20, at 8. Maddock’s questions are a set of orientation questions that help differentiate concussed and non-concussed athletes. For example: “what team are we playing today?” Id. at 39. The SAC objectively measures neurocognitive functioning with orientation questions and memory tests. See William B. Barr, Assessing Mild Traumatic Brain Injury on the Sideline, in Sports Neuropsychology: Assessment and Management of Traumatic Brain Injury 87, 98 (Ruben J. Echemendia ed., 2006).
98. McCrory, Consensus, supra note 8, at 188-89. An estimated 30% of all high school and college football players return to the same game, and 70% resume play within four days of their concussion. See Echemendia, supra note 88, at 104. On average, 56.5% of NFL players who have
The Consensus Statement cautions that the recovery time for young athletes may be longer than for adult athletes, and consequently, a more conservative approach should be used in determining when young athletes should be permitted to return to play. The use of adult RTP guidelines for young athletes is expressly discouraged because guidelines prescribed for adult athletes fail to take into account the longer recovery time experienced by young athletes and the difficulty of diagnosing the head injuries of young athletes. Overall, the view expressed in the Consensus Statement is that young athletes are more susceptible to concussions than adult athletes and more conservative RTP guidelines are required for young athletes. Paramount to such guidelines are two key recommendations. First, that young athletes should never return to play on the same day as a head injury occurs and, second, that young athletes should always be cleared by a physician before returning to play.

RTP decisions for young athletes will generally be made by coaches, parents, or family doctors. A chronic problem, however, is that most concussions suffered by young athletes are not properly identified, much less brought to the attention of a health care professional. A recent survey of coaches reported that 42% believed that sports-related concussions only occur where the athlete experiences a loss of consciousness, and further, one in four of these coaches would allow an athlete to continue playing despite showing symptoms. These findings are a real cause for concern and explain why legal claims may be made against persons in circumstances where a concussed athlete has returned to play too soon after the concussion.

Based on a review of some of the RTP guidelines that are presently being used in schools and community recreational programs, it is reasonable to conclude that persons involved in RTP decisions in relation to young athletes as part of these programs are exposing themselves to potential legal claims. These persons include sports governing bodies and athletic associations, schools and coaches, and sports medicine care providers, such as physicians and athletic trainers. Legal claims against these persons likely would be based on a tort claim for negligence in either failing to properly identify or to

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99. McCrory, Consensus, supra note 8, at 186, 188-89.
100. See Purcell, Identification and Management, supra note 53, at 420.
101. See Buzzini & Guskiewicz, supra note 4, at 376-77, 380. See also McCrory, Consensus, supra note 8, at 190; Laura Purcell, What Are the Most Appropriate Return-to-Play Guidelines for Concussed Child Athletes?, 43 BRIT. J. SPORTS MED. i51, i53 (2009) [hereinafter Purcell, Appropriate Guidelines]; Purcell, Identification and Management, supra note 53, at 423.
103. Meehan & Bachur, supra note 8, at 118.
manage a concussion. In general, to prevail in a negligence claim, the plaintiff must prove the basic elements of negligence. This means that the plaintiff must prove that the defendant owed the plaintiff a duty of care, that the defendant breached that duty and exposed the plaintiff to the risk of a substantial loss or damages, that the breach was both the actual and proximate cause of substantial loss or damages of the plaintiff, and that the plaintiff suffered a pecuniary loss or injury as a consequence.\textsuperscript{104} In the case of a sports-related concussion, the breach of the duty of care may be allowing a young athlete to return to play too soon following a head injury.

The following analysis will focus primarily on the RTP guidelines adopted by different groups and the legal duties owed by each in the context of concussions in young athletes.

\textit{B. Legal Duties of Youth Sports Governing Bodies and Athletic Associations}

Doctors and athletic trainers may be the most obvious defendants in a negligence claim relating to the post-concussion return to play of athletes. It is certainly the case, however, that persons more remote from the actual decision made in a particular case may also be subject to a negligence claim. In general, the basis of such claims is the failure of the applicable governing body of the subject sport to adopt or to enforce RTP guidelines.\textsuperscript{105} In the jurisprudence to date, there seems to be reluctance on the part of North American courts to hold the governing bodies of sport associations and their officials liable for negligence in the absence of direct involvement in decisions made in respect of the concussed athlete.\textsuperscript{106} Presumably, that reflects a concern on the part of the courts that imposing too strict a standard of liability on governing bodies and their officials would be unfair, would make it difficult for the governing bodies to function, and would open the door to a flood of litigation.\textsuperscript{107} Thus, to date, the governing bodies of sport

\begin{itemize}
\item \textsuperscript{104} 57 Am. Jur. 2d Negligence § 71 (2010).
\item \textsuperscript{107} Karas v. Strevell, 884 N.E.2d 122, 103-31 (Ill. 2008) (holding that sports governing bodies have no legal duty to warn, insure, or protect players against the inherent risks of a sport). \textit{See also} Agar v. Hyde, [2000] HCA 41, 201 C.L.R. 552 (Austl.). To hold that the International Rugby Board owed a duty of care to the plaintiff would diminish the autonomy of all who choose, for whatever reason, to engage voluntarily in this, or any other, physically dangerous pastime. It would do so because it would deter those who fulfill the kind of role played by the IRFB and the appellants in regulating that pastime from continuing to do so lest they be held liable for the consequences of the individual’s free choice. The choices available to all would thus be
organizations and their officials generally have not been held responsible for negligence for injuries sustained by athletes. While it certainly may be argued that governing bodies of sport organizations have a legal duty of care to participating athletes and that they are in breach of that duty where they fail to make or enforce adequate rules to safeguard the health and safety of their participating athletes in relation to sports-related concussions, in general, the courts have determined that athletes, even young athletes, who participate in organized sports voluntarily assume the risk of injuries, including concussions.\(^\text{108}\)

In North America, claims for loss or damages suffered by concussed athletes have been made against high school and youth athletic associations directly or through vicarious liability. In *Serrell v. Connetquot Central High School District*, a student claimed that his state high school athletic association breached its duty to promulgate rules concerning head injuries and RTP guidelines.\(^\text{109}\) The court held that the plaintiff's assertion that the association had failed to establish RTP rules for head injuries did not raise a triable issue of fact.\(^\text{110}\) Rather, the evidence showed that such rules were made by the schools and school districts, giving medical personnel who treated students the responsibility to make the RTP decisions.\(^\text{111}\) The court noted that the association was simply the administrative body in charge of scheduling games and tournaments and did not have the expertise or mandate to implement and enforce RTP rules.\(^\text{112}\)

This decision is interesting in light of the fact that the National Federation of State High School Associations (NFHS) promulgates concussion guidelines and encourages all member schools to adhere to them.\(^\text{113}\) In concussion guidelines co-sponsored with the Centers for Disease Control and Prevention (CDC), the NFHS identifies symptoms of concussion and recommends that, if diminished.

\(^\text{Id.}\) at ¶ 90. The court did note that different standards may be applicable in cases involving school-age children. \(^\text{Id.}\) at ¶ 91. See also Hamstra et al. v. British Columbia Rugby Union, [1989] B.C.W.L.D. 2211, 1 C.C.L.T. (2d) 78, ¶ 25, rev'd on other grounds, [1997] 1 S.C.R. 1092, 145 D.L.R. (4th) 193 (Can.) (finding the coach followed the rules and guidelines promulgated by the rugby union when conducting tryout).


\(^\text{109.}\) \(^\text{Id.}\) at 107-08.

\(^\text{110.}\) \(^\text{Id.}\) at 108.

\(^\text{111.}\) \(^\text{Id.}\)

\(^\text{112.}\) \(^\text{Id.}\)

no medical staff is on site, the injured athlete exhibiting these symptoms should be sent to get the appropriate medical care.\textsuperscript{114} The guidelines emphasize the need for proper coaching and equipment, provide that there is to be no return to play in the same game or practice, even if symptoms seem to have cleared, and require that there be close monitoring of athletes, as well as medical clearance.\textsuperscript{115}

The court's reasoning in \textit{Serrell} goes beyond the "no-duty" findings involving sport's governing bodies by concluding that, not only did the athletic association owe no duty of care to protect athletes from the inherent risks of the sport, the association played a strictly administrative role and had no responsibility for creating or enforcing rules.\textsuperscript{116} This reasoning completely absolves the state high school athletic association from any responsibility for the health and safety of participating athletes. Based on the court's reasoning, that responsibility devolves to the member schools and school boards. Interestingly, the New York State Public High School Athletic Association (NYSPHSAA), the athletic association involved in the \textit{Serrell} lawsuit, has now developed a concussion management program with RTP guidelines for their member schools.\textsuperscript{117}

A good case can be made that high school athletic associations should play a role in the development and promulgation of concussion guidelines for their member schools. The purpose of these associations is to regulate high school sports.\textsuperscript{118} That purpose seems broad enough to include the responsibility to create and enforce rules that minimize health and safety risks for participating athletes. There are two decisions in which courts have taken a different view than that taken by the Court in \textit{Serrell}.

In \textit{Wissel v. Ohio Sch. Athletic Assn.}, a participating athlete who suffered a sports-related concussion brought a claim in negligence against a state and national high school association for failing to properly instruct him on tackling

\begin{itemize}
  \item \textsuperscript{115} See NFHS, Sports Medicine, \textit{supra} note 113, at 2.
  \item \textsuperscript{116} See \textit{Serrell}, 721 N.Y.S.2d at 108.
  \item \textsuperscript{117} \textit{Keep Your Head in the Game}, THE NEW YORK STATE ATHLETIC ADMINISTRATORS ASSOCIATION & THE NEW YORK STATE PUBLIC HIGH SCHOOL ATHLETIC ASSOCIATION, available at http://www.KEEPYOURHEADIN THEGAME.ORG/ [hereinafter NYSPHSAA, \textit{IN THE GAME}]. In the \textit{Serrell} opinion, the athletic association is referred to as the New York State Public High School Athletic Organization, but it seems that this is now the New York State Public High School Athletic Association. See id.; see also \textit{Serrell}, 721 N.Y.S.2d at 107.
  \item \textsuperscript{118} NYSPHSAA, \textit{IN THE GAME}, \textit{supra} note 117.
\end{itemize}
techniques and failing to ensure that he was wearing a proper helmet.\textsuperscript{119} Although the court rejected the plaintiff’s claim, it accepted the plaintiff’s basic premise that the associations owed participating athletes a duty of care in the rules that they had created to govern the subject sport.\textsuperscript{120} In contrast to the reasoning in \textit{Serrell}, the court in \textit{Wissel} stated that

\begin{quote}
We find it odd and disconcerting that organizations such as the appellees, which undertake to enhance the quality and safety of high school football games, disclaim that they do so to provide a service to the athletes who participate in the games. Moreover, we find similarly incongruous the argument that organizations whose rules govern the contest and whose discussions determine the type of athletic equipment that the athletes are provided do not owe those athletes a duty of reasonable care in their activities. The fact that these organizations purport to act gratuitously and for noble purposes does not, \textit{ipsa facto}, absolve them of a legal duty of care toward the athletes.\textsuperscript{121}
\end{quote}

In a similar vein, in \textit{Mohr v. St. Paul Fire \& Marine Insurance Co.}, a participating athlete claimed that the state athletic association, the Wisconsin Interscholastic Athletic Association (WIAA), was negligent in adopting an NFHS rule for competitive racing starts from platforms into shallow water without an independent inquiry into the safety of this rule.\textsuperscript{122} The court reversed the trial court’s decision to grant summary judgment to the WIAA because it determined that there were genuine issues of material fact as to whether the state athletic association exercised reasonable care in adopting the NFHS rules.\textsuperscript{123}

\textit{Wissel} and \textit{Mohr} are both authority for the proposition that state high school athletic associations owe a duty of care to their participating athletes and that duty of care includes the responsibility to establish and enforce rules to protect the health and safety of participating athletes. \textit{Mohr} also suggests that a state athletic association has a duty to exercise reasonable care and

\begin{thebibliography}{123}
\bibitem{120} \textit{id.} at 465.
\bibitem{121} \textit{id.}
\bibitem{123} \textit{id.} at 593.
\end{thebibliography}
should make independent safety inquiries when adopting a rule recommended by the national athletic association of which it is a member. In the case of RTP guidelines, the independent inquiry will likely not be an issue, as the NFHS Sports Medicine Advisory Committee has worked with the CDC to compile its recommended concussion guidelines for member schools.124 As such, the assessment of head injuries and the use of the RTP guidelines are based on the most current medical research involving concussions, and there should be no need for an independent inquiry with respect to the RTP guidelines.

Given the current information that is available in relation to sports-related concussions in young athletes, it seems reasonable to expect that high school athletic associations should be legally required to promulgate RTP guidelines for use by member schools.

The guidelines recommended by the NFHS are not mandatory for member high school athletic associations.125 It is clear, however, that the WIAA believes that state high school sport organizations that have implemented detailed RTP guidelines, such as those found in Wisconsin, are being proactive in protecting their young athletes from the risk of serious injury. This positive response may shield these organizations from negligence claims made against them. The WIAA has endorsed the NFHS recommendations and has provided detailed concussion guidelines and information to assist coaches or trainers who are on the front lines in dealing with RTP decisions.126 These guidelines and information are designed to help coaches and trainers make initial assessments of head injuries that occur in the course of a game or practice and to determine if an athlete should be permitted to return to play.127 The guidelines highlight the importance of concussion education, and a “Concussion Tool Kit” is provided for coaches, students, and parents, with the central theme that athletes are encouraged to report symptoms.128

In addition, the WIAA has issued detailed guidelines on the prevention of brain and spinal injuries in football.129 These guidelines provide a panoply of

124. See NFHS, Sports Medicine, supra note 113.
125. See id.
128. Id. at 66. See also WIAA, Concussion Information, supra note 126.
129. See WIAA, Medical, supra note 127, at 166.
useful information relating to concussion prevention, assessment, and management, including how-to instructions on conducting preseason history and physical exams for athletes, carrying out an emergency action plan in circumstances where a doctor or athletic trainer is not present to deal with a head injury, conducting conditioning drills aimed at prevention by strengthening neck muscles, giving instructions on tackling techniques, and more strictly enforcing the rules of the game and instructions on the hiring of coaches and trainers with the necessary education and training to teach prevention skills and to recognize concussion symptoms.130

While the endorsement of the NFHS guidelines by the WIAA is commendable action on its part, what is not is the recommendation by the WIAA that the guidelines be adopted by its members only on a voluntary basis.131 The participating athletes in the sports programs of its member schools would be made safer from the threat of sports-related concussions if the WIAA made the NFHS guidelines mandatory. That would ensure their adoption and enforcement by all member schools.

In New Hampshire, the State Advisory Council issued the Sport-Related Concussion Consensus Statement, which was premised on a scientific approach to concussion management and targeted sports programs in schools and youth sports leagues.132 In conjunction with the Consensus Statement, a pilot project on concussion management was established in New Hampshire schools in 2009.133 The project recognizes that, when athletes participating in the targeted sport programs suffer head injuries, they do not usually have access to athletic trainers or health care providers who are trained in concussion assessment or management.134 Often absent as well are the necessary physical resources and equipment to implement effective post-concussion management procedures.135 To fill that gap, the project contemplates the hiring of a certified athletic trainer by schools where possible

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130. Id. at 69. The guidelines also include a “Football Helmet Inspection List,” with inspections to be performed weekly (coaches, trainers, equipment managers) and daily by players. Id. at 70-71.
131. See id. at Introduction.
134. See id. at 6.
135. See id. at 24, 26.
and, if not, that health care staff already employed by the school, such as nurses, be trained in concussion management procedures.\textsuperscript{136}

By implementing uniform and consensus-based guidelines at the state school level, New Hampshire has made a positive step towards ensuring consistency in the assessment and management of sports-related concussions in young athletes. While at an early stage, it seems reasonable to expect that the results should show a reduction in the risks to young athletes in New Hampshire of second-impact syndrome and, as well, to reduce the incidence of lawsuits that result where concussions are suffered by young athletes.

In Canada, the Province of Ontario has issued concussion guidelines—\textit{The Ontario Physical Education Safety Guidelines}—to deal with concussion assessment and management in elementary and secondary schools.\textsuperscript{137} A key requirement of the Ontario RTP guidelines is the post-concussion program that must be followed before a young athlete who suffers a head injury is permitted to return to play.\textsuperscript{138} This program requires the active involvement and evaluation of a physician.\textsuperscript{139} Thus, under the RTP guidelines, a young athlete who suffers a head injury must be evaluated by a physician before the young athlete is permitted to return to play. As part of that evaluation process, the physician completes a “Request to Resume Athletic Participation” form that is specific to concussions.\textsuperscript{140} Only where the physician finds no evidence of a concussion and completes and signs the form to that effect may the young athlete return to play.\textsuperscript{141} Where the physician finds symptoms of a concussion, the young athlete is prohibited from returning to play until those symptoms have subsided and that state is confirmed by a physician after a second evaluation.\textsuperscript{142} In such cases, the physician may determine that the best approach is a step-wise one that starts with the return to play of the young athlete but only on a non-contact basis.\textsuperscript{143} Under this step-wise approach, the

\begin{itemize}
\item \textsuperscript{136} Id. at 13, 16-17.
\item \textsuperscript{137} \textit{Ontario Safety Guidelines for Physical Education: Elementary Curricular Guidelines}, \textsc{Ontario Physical and Health Education Association} (2008) [hereinafter \textit{Ontario Elementary Guidelines}]; \textit{Ontario Safety Guidelines for Physical Education: Secondary Curricular Guidelines}, \textsc{Ontario Physical and Health Education Association} (2008). These guidelines are identical and the following citations will correspond to page numbers from the elementary school edition.
\item \textsuperscript{138} See \textit{Ontario Elementary Guidelines}, supra note 137, at 4.
\item \textsuperscript{139} Id.
\item \textsuperscript{140} Id. at 46-47
\item \textsuperscript{141} Id.
\item \textsuperscript{142} Id.
\item \textsuperscript{143} Id. This approach is endorsed by the Prague \textit{Consensus Statement} from the 2\textsuperscript{nd} International Conference on Concussion in Sport in 2004, the predecessor of the 2008 Zurich \textit{Consensus Statement}. See Paul McCrory, et al. \textit{Summary and Agreement Statement of the 2nd International Conference on Concussion in Sport, Prague 2004}, 39 \textsc{Brit. J. Sports Med.} 196, 202 (2005).
\end{itemize}
young athlete must return to a physician a third time, and only if all concussion symptoms appear to be gone is the young athlete permitted to return to play on a full-contact basis.\textsuperscript{144}

The Ontario RTP guidelines adopt a conservative approach to the post-concussion management of young athletes who suffer head injuries. If properly adhered to, the guidelines should ensure that young athletes with head injuries are only cleared to return to play after a thorough evaluation by a physician. A weak link in the operation of the guidelines, however, is that actual compliance involves coaches, athletic administrators, parents, and others involved in the RTP decision. For the Ontario RTP guidelines to be effective, a young athlete who suffers a head injury must be identified as being at risk and subject to the RTP protocol. Further, once a young athlete is required to undergo an initial evaluation by a physician, forms must be completed and submitted to the appropriate school officials.\textsuperscript{145} In that connection, a difficult challenge posed for the RTP protocol contained in the Ontario RTP guidelines is that identified by the New Hampshire study, and that is the sometimes disruptive role that parents of a young athlete may play in post-concussion management. Unfortunately, parents may have their own ideas respecting post-concussion management and may not cooperate with these RTP guidelines. For example, parents of a young athlete may attempt to speed up a return to play by engaging in "doctor shopping"—that is, finding a physician who will clear the return to play of a young athlete.\textsuperscript{146} This behavior undercuts post-concussion programs like that embodied in the Ontario RTP guidelines. For these programs to be effective and to ensure that the decision made to permit a young athlete to return to play is a sound one and in the best interests of the young athlete, it is crucial that all those involved, including athletic administrators and parents, work together in a collaborative way to that end. Concussion education programs may assist the parents of young athletes in better understanding the importance of an effective post-concussion management program and the role that they can play in it.

It seems reasonably clear that RTP guidelines, which base return to play of an athlete who suffers a head injury on the clearance of a physician, will be more effective in preventing conditions such as second-impact syndrome than RTP guidelines that do not require such clearance. Having an RTP decision

\textsuperscript{144} Ontario Elementary Guidelines, supra note 137, at 46. It should be noted that the third visit would only be necessary if the student has previously been cleared only for non-contact return to play. \textit{Id}.

\textsuperscript{145} \textit{See id}.

\textsuperscript{146} Maerlender, supra note 133, at 53.
made by a physician has several advantages. First, a physician is better positioned to make an informed decision as to whether a concussion has occurred and, if so, whether the young athlete is symptom free and can safely return to play. Second, in an important sense, a physician is an objective and dispassionate participant in the process who has no “stake” in the timing of the return to play of young athletes, other than their safety and health.

Further, the institution of systemic and uniform RTP guidelines throughout the schools of an American state or Canadian province is a very positive development in addressing the threat posed by sports-related concussions in young athletes. Thus, New Hampshire’s efforts to create a state-wide consensus statement on concussions with the help of medical experts for use in its high schools and youth sports leagues is very encouraging. This approach reinforces the benefit of uniform concussion guidelines and ensures that athletic associations that operate these leagues are on the same page when it comes to concussion assessment and management. At the least, systemic and uniform RTP guidelines heighten the awareness of all those involved in these leagues—be they coaches, sports administrators, parents, or of course, young athletes—that young athletes are at risk from the threat of sports-related concussions and that the threat is a significant one that must be addressed.

C. Legal Duties of Coaches and Schools

1. U.S.

Coaches are often named as the defendants in lawsuits involving injured athletes. This reflects the reality that coaches exercise a significant, if not the primary, supervisory role of athletes in the course of training, practices and games. School boards or school districts may be named alone or along with the coach, with the plaintiff claiming that they are vicariously liable for the negligence of an employee under their supervision. For example, in *Jarreau v. Orleans Parish School Board*, the facts were that a young athlete who suffered a head injury was not referred to a physician for treatment until the end of the sporting season. In an action for negligence brought by the young athlete, the school board was held vicariously liable for aggravation of the injury as a consequence of the delay in treatment by a physician. Based on the case, in contrast to the subject sport’s governing bodies, school boards that sponsor and oversee athletic competitions within their districts may owe a duty of care

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147. *Jarreau*, 600 So.2d at 1390-391.
148. *Id.* at 1393-394
to participating athletes on a vicarious basis by reason of the negligence of coaches and other sport staff they employ.

It is noted, however, that under the doctrine of qualified immunity, a public school board, as a state agent, may be immune from vicarious liability for the negligence of one of its employees.\textsuperscript{149} Qualified immunity may protect public school coaches, as employees of a state agent, from negligence claims when they are exercising discretionary functions, that is, those that involve an exercise of discretion or judgment, as opposed to ministerial functions that simply involve the execution of a set rule.\textsuperscript{150} In\textit{ Yanero v. Davis}, the Kentucky Supreme Court held a coach to be liable in negligence where a high school baseball player, who was not wearing a helmet, was injured when hit in the head by a ball.\textsuperscript{151} The court concluded that the coach was not protected by qualified immunity because he was performing a ministerial function in not enforcing the helmet rule and not a discretionary one.\textsuperscript{152} This distinction could have important implications for plaintiffs in post-concussion return to play cases since it appears that coaches are exercising a discretionary function when they decide if an athlete who has suffered a concussion should be permitted to return to play. It is interesting that uniform RTP guidelines mandated by a high school athletic association or school could turn these decisions into ministerial functions, as they would thereby involve the execution of an established rule and the coach would not be protected by the qualified immunity defense.

A coach may not be determined to be liable for negligence when the coach has exercised reasonable care in taking all necessary steps to reduce the risk of injury, which may include giving instructions respecting the rules of the game and the proper techniques required to play it.\textsuperscript{153} In addition, reasonable care on the part of coaches includes taking reasonable steps to provide medical assistance to an injured athlete and not forcing the injured athlete to play while injured where there is a risk that the return to play may aggravate the

\textsuperscript{149} Prince v. Louisville Mun. Sch. Dist., 741 So. 2d 207, 210-12, 214 (Miss. 1999).

\textsuperscript{150} Yanero v. Davis, 65 S.W.3d 510, 522 (Ky. 2002). In some cases, waivers may also protect coaches, schools, and other organizations from tort liability. For U.S. cases, see Sharon v. City of Newton, 769 N.E.2d 738, 745 (Mass. 2002) (holding public policy not offended by requiring student to sign a release before participating voluntarily in activity).\textit{ But see} Wagenblast v. Odessa Sch. Dist., 758 P.2d 968, 974-75 (Wash. 1988) (requiring a student and his parent/guardian to sign a standard form releasing the school district from liability for negligence in connection with the student’s participation in interscholastic athletics violated public policy). For the Canadian perspective, see Wong v. Lok’s Martial Arts Centre Inc., [2009] BCSC 135 (Can.) (finding parents do not relinquish the rights of their children by signing waivers for sports programs).

\textsuperscript{151}\textit{ Yanero}, 65 S.W.3d at 517.

\textsuperscript{152} Id. at 529.

\textsuperscript{153} WALTER T. CHAMPION, JR., FUNDAMENTALS OF SPORTS LAW § 3:1 (2009).
In *Yatsko v. Berezwick*, a high school basketball player had suffered a concussion. The player was forced to play in the next game, despite telling the coach about the injury and its symptoms. The player was the team’s tallest, and the coach insisted that it was imperative that player return to play. The player brought a constitutional claim against the coach and school district for not following the state athletic association’s concussion guidelines. The claim was dismissed on the basis that it was not a valid constitutional claim. In the case, it appears that the player would have had a better chance of success if the claim had been framed as an action for negligence against the coach. The qualified immunity defense would not stand in *Yatsko* if the coach was exercising a ministerial function in making a RTP decision for an athlete based on established concussion guidelines in the school district. RTP guidelines would be viewed as a ministerial duty, meaning that their implementation by a coach is the execution of a set rule rather than a discretionary decision. This would mean that the coach would not be protected from tort liability by qualified immunity when making an RTP decision.

It is interesting to note that, in contrast to *Serrell*, where the plaintiff’s action was based on the athletic association’s lack of RTP guidelines, in *Yatsko*, the plaintiff argued that RTP guidelines had been established by the state athletic association but that the coach and school district breached their duty of care to participating athletes by failing to follow them. *Yatsko* reinforces the argument that, where uniform RTP guidelines for concussions are adopted by the governing body of an athletic association, the result may be that the failure of the athletic association or its administrators or coaches to adhere to the guidelines may be the failure to exercise a ministerial duty, thereby negating their qualified immunity from tort liability.

In *Cerny v. Cedar Bluffs Junior/Senior Public School*, a high school football player brought an action for negligence against a school and school district for injuries sustained after the player suffered a head injury and was allowed to return to play during the same game and, later, to participate in a

154. *Id.*
156. *Id.*
157. *Id.*
158. *Id.* at *3.*
159. *Id.* at *6.*
full contact practice. The district court held that the appropriate standard of care to be applied to coaching staff of the school is that of a "reasonably prudent person" that holds a state teaching certificate and a coaching endorsement. The Supreme Court of Nebraska affirmed the standard of care for a coach endorsed by the district court, and elaborated that this standard required that the coach (i) be familiar with the elements of a concussion, (ii) must look for concussion symptoms if a player has suffered a head injury, (iii) must repeat this evaluation at intervals before the player can return to play, and (iv) must evaluate the seriousness of the injury to determine whether it is appropriate that the player resume play or be prohibited from participating until cleared by a medical professional. Based on the standard of care for a coach that it had articulated, the Supreme Court of Nebraska held that the coaching staff had exercised reasonable care in following the RTP guidelines and was not liable for the player's injuries.

Thus, in Cerny, the courts concluded that a coach was not only held to the same standard of care as a reasonably prudent person but as well, in light of the training that high school coaches had in the state the coach was required to be able to identify and manage sports-related concussions suffered by a player. In Cerny, the courts determined that a coach can demonstrate that reasonable care has been taken where the coach followed concussion RTP guidelines established by the relevant school or association.

2. Canada

The Canadian jurisprudence dealing with negligence and return to play circumstances is scant, but there are some cases where Canadian courts have considered the legal duty of care that instructors, coaches, and schools owe to young athletes. There is jurisprudence in which coaches or other supervisors outside of a school program have been held to owe a duty to provide proper instruction to young athletes and to take reasonable precautions to reduce unnecessary risks associated with their participation in sporting activity. Similar to the standard of care established for coaching staff in Cerny, in the Canadian jurisprudence, a coach is held to the careful and prudent person standard of care with the result that the coach should not be liable in negligence for a sports-related injury if (i) the level of skill required by
injured young athlete in the particular sporting activity in which the young athlete was engaged under the supervision of the coach was appropriate given the age and physical condition of the young athlete, (ii) the young athlete was properly instructed, (iii) the young athlete was using the correct equipment, and (iv) the young athlete was properly supervised.\textsuperscript{168}

The Canadian experience is that, under the reasonable and prudent person standard, a coach must take all of the necessary steps to avoid placing a young athlete at risk of sustaining or aggravating an injury. In Thomas v. Hamilton Board of Education, a seriously injured football player argued he should not have been allowed to play football based on the “long, lean swan neck theory,” meaning that his long thin neck exposed him to an unreasonable risk of injury by playing football.\textsuperscript{169} The court held that, while the player’s consent to the risks associated with football did not relieve school authorities from exercising the appropriate standard of care, the evidence supported the conclusion that it was not negligent for the coach not to have been aware of this particular theory that was not widely known by coaches at the time, and there was no liability for the increase in the player’s vulnerability to a serious neck injury.\textsuperscript{170}

Although it did not involve a head injury, the decision of a British Columbia court is instructive as to the nature of the standard of care that should be applied to coaches and others in the case of an injured young athlete.\textsuperscript{171} In the case, a gym teacher was held to be liable for negligence for failing to meet the required standard of care in the treatment of an injured

\textsuperscript{168} Id. at 302-03. See Myers v. Peel County Bd. of Educ., [1981] 2 S.C.R. 21, 34, 123 D.L.R.3d 1 (Can.) (finding the school failed the last two tests because the proper crash mats were not used and the teacher was absent from the room at the time of the accident, but plaintiff found to be contributorily negligent (20%) for suddenly attempting a new maneuver without a spotter). See Thornton et al. v. Bd. of Sch. Tr. of Sch. Dist. No. 57 (Prince George), [1975] 57 D.L.R. (3d) 438, 3 W.W.R. 622, varied [1976] 73 D.L.R. (3d) 35 5, W.W.R. 240, varied [1978] 2 S.C.R. 267, 83 D.L.R. (3d) 480 (Can.) (finding the gym teacher satisfied the skill and instruction prongs of the test, but failed to provide adequate equipment or supervision for gymnastics class). Coaches or instructors have been found negligent when they have not met the instruction prong of the Thornton test for example, when a student sustained injuries when forced to participate in sport despite no previous instruction. See Hussack v. Chiliwack Sch. Dist. No. 33, [2009] BCSC 852 (Can.). See also Janet Steffenhagen, Ex-Chiliwack Student Gets $1.37 Million for Field-ice Hockey Injury, VANCOUVER SUN, June 30, 2009, available at http://www.vancouversun.com/sports/Chiliwack+student+gets+million+field+ice hockey+injury/1745075/story.html (student was subsequently awarded $1.37 million from the school district for his injuries).


\textsuperscript{170} Id. at ¶ 39, ¶ 46.

\textsuperscript{171} Freer (Guardian ad litem of) v. Okanagan/Skaha Sch. Dist. No. 67, 2002 BCSC 1682 ¶ 17 (Can.).
A student, who was recuperating from a leg fracture, re-fractured it during a supervised sporting activity in gym class. The gym teacher was told about the event, and notwithstanding that knowledge, the gym teacher instructed the injured student to walk from the field to the school. The gym teacher’s plan was that the injured student would call his parents from the school and arrange to be picked up and taken to the hospital. Although not strictly an RTP circumstance in the same sense as that considered in Yatsko and Jarreau, the gym teacher’s failure to meet the required standard of care owed to the injured student caused the leg injury to be aggravated, and that was determined to be negligent action on his part.

3. Injury Reporting and Duty to Provide Medical Treatment

Courts in North America have found that teachers, coaches, instructors, schools, or other organizations have a duty of care to arrange for prompt and proper medical care for a young athlete who is injured while under their supervision. In general, a coach or other person who is not a health care provider and who provides initial medical care is bound by the standard of care of an average competent person of similar experience. This standard of care is higher than the standard of an ordinary person who does not have any experience in dealing with sports injuries but is clearly not the standard required of a physician or other health care provider.

It has been noted that studies of young athletes demonstrate that they may hide or not fully report their concussion symptoms to their coach. Young athletes may fear that they will be precluded from playing if they do, or they may simply not understand how serious head injuries can be. A coach is not normally negligent where a young athlete fails to report a head injury and shows no obvious symptoms of having a head injury. In these circumstances, the young athlete who returns to play too soon as a result may be held entirely or contributorily negligent if the head injury is aggravated by
such return. For example, in *Zemke v. Arreola*, a high school football player who had suffered second-impact syndrome brought a negligence claim against his coaches and the school district.\textsuperscript{181} Although the player had sought attention for a dislocated finger during the game, the player did not report a head injury to the coach or medical personnel.\textsuperscript{182} Later in the game, the player suffered a subdural hematoma after receiving a second hit.\textsuperscript{183} The court found that the question to ask when determining if a coach is negligent in failing to remove an injured player from participating in the game and running the risk of aggravating a head injury is whether aggravation of the head injury was foreseeable.\textsuperscript{184} In light of the failure of the player to report the head injury to the coaching staff, and in the absence of evidence that there were obvious symptoms of a head injury, the court held that the coaches were not liable for negligence because of their failure to act.\textsuperscript{185}

In a similar case, an eighteen-year-old high school football player did not disclose the full extent of an injury to the coaching staff and continued to play until the end of the season.\textsuperscript{186} The player brought an action against the coaches for the permanent damage that he suffered, but the court found him to be contributorily negligent for the aggravation of his injury because of the maturity level and playing experience that he was deemed to have.\textsuperscript{187} The court also considered the player's apparent willingness to keep on playing in an attempt to secure a college scholarship, knowing that his actions would likely aggravate his injury.\textsuperscript{188}

In the Canadian case *Poulton v. Notre Dame College*, a young athlete attending a residential school suffered a severe hip infection following two ice hockey injuries.\textsuperscript{189} Notwithstanding, the team coach refused to let the player see a physician.\textsuperscript{190} The court held that the coach and school owed a duty of care to the student and had breached that duty by failing to secure medical care for the young athlete who was under their supervision.\textsuperscript{191} The injury of the young athlete was aggravated by the delayed treatment, and consequently,

\begin{footnotes}
\footnotetext{181}{Zemke v. Arreola, 2006 WL 1587101, at *1 (Cal. App. 2 Dist).}
\footnotetext{182}{Id.}
\footnotetext{183}{Id.}
\footnotetext{184}{Id. at *3.}
\footnotetext{185}{Id. at *5.}
\footnotetext{187}{Id. at 1391.}
\footnotetext{188}{Id. at 1393-394.}
\footnotetext{189}{Poulton v. Notre Dame Coll., 60 D.L.R. (3d) 501, 503 (Sask. Q.B. 1976) (Can.).}
\footnotetext{190}{Id.}
\footnotetext{191}{Id. at 505-06}
\end{footnotes}
there was liability for that aggravation and the resulting loss and damages in negligence. The case clearly confirms that a coach’s duty of care to a young athlete under the coach’s supervision includes ensuring that the young athlete, when injured, receives medical care immediately after the injury is reported. Failure to meet that standard of care means that the coach and others may be liable for negligence for the aggravation of the initial injury that results from the delayed treatment.

The endorsement of uniform concussion guidelines may raise the standard of care that must be met by coaches and others involved in the supervision of the sporting activities of young athletes. The notions of proper instruction and knowledge on the part of coaches, particularly in Thomas, are relevant to the discussion of liability for concussions because knowledge of the student’s condition did not fall under the duty of care that was owed to the athlete. While many of these cases noted earlier are useful in understanding the standard of care required for coaches in relation to young athletes under their supervision who suffer head injuries, for the most part, these cases do not involve circumstances where the relevant sports organization had adopted uniform concussion guidelines. In Cerney, the court considered such a circumstance and the result was that the court held the coaches involved to a higher standard—they were taken to have sufficient knowledge to identify and manage sports-related concussions. The approach of the court in Cerney may cause concern on the part of coaches and school boards that, by adopting uniform concussion guidelines, their conduct will be scrutinized against a higher standard of care than might otherwise be the case absent such guidelines. Notwithstanding this concern, the adoption of uniform concussion guidelines should have the overall effect of reducing litigation because coaches and others involved should be better equipped to deal with concussion assessment and management in relation to young athletes. That should reduce the number of injuries associated with RTP decisions and in turn reduce the number of lawsuits brought against coaches and school boards.

D. Legal Duties of Sports Medicine Care Providers

1. Physicians

The WIAA guidelines noted provide tools for a coach or trainer to assess
concussions in the course of a game or practice. The guidelines also distinguish “simple” and “complex” concussions. However, it is not clear that a coach or trainer is able to make such an assessment in a particular case. This is an area that could potentially lead to legal issues where a coach or trainer determines that a concussion is a “simple” one and permits the young athlete to return to play too soon. To address that concern, some RTP guidelines, such as the Zurich Consensus Statement and the Ontario Physical Education Safety Guidelines, recommend that an athlete who has sustained a head injury be evaluated and effectively be “cleared” by a physician before being permitted to return to play.

In the United States, physicians who fail to properly diagnose a concussion and who clear a player to return to play prematurely face the risk of being held liable for negligence. Physicians who are specialists in sports medicine will generally have the best training to diagnose sports-related concussions. When treating a patient with a head injury, a physician “has a legal duty to have and use the knowledge, skill, and care ordinarily possessed and used by members of his or her particular specialty in good standing, considering the state of medical science at the time such care is rendered.” Physicians may be held liable for negligence if their treatment is not found to be “in accordance with good and accepted standards of medical care.” Determining what “good and accepted standards” constitute in relation to RTP guidelines is difficult because of the existence of conflicting medical guidelines.

One problem is that RTP guidelines may be targeted at different constituencies. For example, the Ontario Physical Education Safety Guidelines promulgated by sports governing bodies are aimed at applicable schools and their personnel. In contrast, RTP guidelines can be targeted at physicians and other health care providers, and the Consensus Statement is a case in point in that it is aimed at physicians to assist in their treatment of concussed athletes. It would be very useful if uniform RTP guidelines were

195. See WIAA, Medical, supra note 127, at 64-65.
196. Id at 64. As noted earlier, the Zurich Consensus Statement no longer distinguishes between simple and complex concussions.
197. See, e.g., McCrory, Consensus, supra note 8.
198. See, e.g., Cerny, 679 N.W.2d at 205.
199. Echemendia, supra note 88, at 114.
203. See generally, McCrory, Consensus, supra note 8.
established by medical societies for physicians and other health care providers. These guidelines would be framed and written for this target constituency for the purpose of helping these persons to assess and make RTP decisions for young athletes. As such, these guidelines would establish the appropriate medical standards and practices to be followed by physicians and other health care providers who are not directly involved in sports organizations and who may not have ready access to RTP guidelines endorsed by that sports organization. For their part, uniform RTP guidelines that are promulgated by sports governing bodies should be written for their target constituency, that is, member schools, coaches, parents, and young athletes. While these guidelines should be prepared in collaboration with medical experts, they should be less technical in content, emphasizing instead techniques that will enable non-medical persons to make an initial concussion assessment and the proper procedures that should be followed in making the RTP decision.

Two cases involving professional boxers illustrate how United States courts have viewed the standards that must be followed by physicians when making a RTP decision for an athlete with a head injury. *Rosenweig v. State*, involved the death of a boxer from a brain hemorrhage.⁹⁵ Although the trial court found that the physician was negligent in allowing the boxer to resume fighting after two head injuries, the appellate court reversed that decision.⁹⁵ The appellate court concluded that there was no evidence of injury when the physician followed the established standards for examining a boxer before a match.⁹⁶ Similary, in *Classen v. State*, a boxer died of a subdural hematoma after being cleared by a physician to fight.⁹⁷ The court found that there was no evidence to suggest that the doctor failed to perform a proper medical evaluation before clearing the boxer to fight.⁹⁸ The court also held that a decision to allow or disallow an athlete to return to play is a judgment call to be made by the individual physician.⁹⁹

While the court in *Rosenweig* found that the established standards were

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206. Id.
208. Id. at 466.
209. Id. In a more recent case, professional football player Merril Hoge received $1.55 million in damages for the team physician's failure to warn him of the risks of resuming play prematurely after sustaining a concussion. See Mitten, supra note 200, at 201. A new trial was ordered because one of Hoge's attorneys, in violation of discovery rules, did not provide the defense with a letter from a doctor. While Hoge filed for reconsideration, this was denied and the new date for a trial has not been scheduled. See $1.55M Verdict Against a Football Doctor Reversed, NAT'L L.J., Apr. 2001, at A12.
followed and, as a result, the physician was not negligent, *Classen* goes further to suggest that, not only were the established standards followed, but the RTP decision was a matter of discretion and the physician’s exercise of that discretion should not be questioned.

These two cases suggest that simply complying with RTP guidelines may not always be sufficient to protect an athlete’s health if the guidelines themselves are not scientifically valid and conservative. In order for RTP decisions made by physicians to be effective in preventing potentially catastrophic or fatal consequences, they should be based on established uniform guidelines that have been created by medical consensus. To date, while the Fédération Internationale de Football Association (FIFA), the International Ice Hockey Federation (IIHF), the International Olympic Committee (IOC), and the International Rugby Board (IRB) have all adopted the abovementioned SCAT2 assessment tool for sports-related concussions, professional leagues in North America have preferred to establish their own guidelines.

In accordance with the *Ontario Physical Education Safety Guidelines*, a physician in Canada may be faced with the important task of deciding if a young athlete should be permitted to return to play following a concussion.210 Similar to the standard established in the United States, a physician in Canada who treats a sports injury is required to meet the applicable professional standard of care established in relation to the doctor’s specialty area. For example, in *Price v. Milawski*, an orthopedic specialist was found negligent in not exercising the “degree of skill and knowledge which an orthopaedic specialist with his training, experience and standing is required by law to observe and practise.”211 A general practitioner, and likely the medical professional that most young athletes will first have contact with, must adhere to the ordinary professional standard of care for a physician.212 In *Robitaille v. Vancouver Hockey Club Ltd.*, a professional ice hockey player was forced to play despite injuries to his neck and shoulder.213 The court found that the team doctor was negligent in allowing the player to return to play because of pressure exerted on the team doctor by team management.214

212. BARNES, supra note 167, at 311.
214. *Id.* at ¶ 74. Robitaille was subsequently distinguished in another case involving the same ice hockey club, *Wilson v. Vancouver Ice Hockey Club*, where the team doctor was found negligent for failing to immediately order a biopsy for a player suspected of having skin cancer. See *Wilson v. Vancouver Hockey Club*, [1983] 5 D.L.R. (4th) 282, aff’d, [1985] 22 D.L.R. (4th) 516 (B.C.C.A.),
These cases involving professional athletes in North America indicate that the courts have viewed medical clearance on the part of physicians as a discretionary decision, as long as it adheres to the common and most current medical practice. In this respect, normally, there is no liability for negligence when a physician makes a judgment call that is within the accepted standard of medical care. Unlike professional athletes, young athletes who suffer head injuries are often treated by a primary care or emergency department doctor rather than a sports medicine or neurological specialist. These doctors will be held to the ordinary standard established for general practitioners instead of the higher standard of care required of specialists. Given that sports medicine specialists are thought to have better training than general practitioners to assess sports-related concussions, it is not difficult to see how young athletes may be improperly cleared to play too soon after a concussion.

One such case involved a high school football player who died two days after suffering second-impact syndrome. His estate brought an action against his school and the physician who cleared him to return to play, notwithstanding that the player had sustained two concussions during the previous month. The players on the team had all gone through ImPACT testing, a computer-based exam that tests memory and concentration to assess whether an athlete has fully recovered from a concussion. However, this test was only being administered to establish a baseline score that would be compared to an athlete’s score after they sustained a head injury. Despite the fact that the player’s test showed abnormal results, all of the ImPACT tests were voided because of the disruptive behavior of one player during the testing. The player was cleared to play the next day by his primary care

leave to appeal refused, [1985] 22 D.L.R. (4th) 516 (S.C.C.) (Can.) (finding the team doctor was an independent contractor and the team was therefore not vicariously liable for his negligence).


218. Id.


220. Larini, supra note 217.

221. Id.
doctor, who did not review the ImPACT test and who did not connect the player's complaints of fatigue to his previous concussions. The doctor failed to diagnose a concussion despite evidence of symptoms and a recent history of head injuries. A consultation with a specialist or, at the very least, with a physician who had training in concussion assessment and management may have avoided this failure to diagnosis. If a consultation with such an appropriate specialist was not immediately available, the player should not have been permitted to return to play.

A general practitioner, like others, must deal with the fact that many young athletes will not disclose all or any of their symptoms in order to ensure that they can continue to play. This reluctance, when combined with the lack of specialty training in concussion assessment and management and the elusive nature of a concussion diagnosis, may make it difficult for a general practitioner to properly identify a concussion or to make the best RTP decision. Uniform concussion guidelines targeting young athletes established by a national or North American group of head injury experts is recommended in order for physicians and other health care providers to better understand proper concussion assessment and management procedures.

Uniform RTP guidelines are to be encouraged because their adoption should result in better care for young athletes as coaches, physicians, parents, and young athletes will have a better understanding of sports-related concussions and their treatment—in particular, it will help ensure that these persons are on the same page when it comes to making RTP decisions in relation to the young athletes. It is important that uniform RTP guidelines incorporate in the RTP protocol the requirement that any RTP decision must be based on a mandatory written clearance of a young athlete who has suffered a head injury by a medical specialist trained in concussion assessment and management procedures, including the conservative step-wise approach.

An important benefit of uniform RTP guidelines is that they are conservative in their approach in the return to play protocol, which may influence a physician who is unsure of a concussion diagnosis to take a cautious approach in making a RTP decision. This conservative approach is more likely to prevent increased injury to a young athlete. It may also protect the medical professional from negligence claims. In sum, establishing uniform RTP guidelines to be followed by medical professionals will do more

222. Although information about the result of this lawsuit is difficult to find, the State of New Jersey has proposed legislation for the development of concussion guidelines in conjunction with the New Jersey State Interscholastic Athletic Association. Included in this proposed legislation is that a student-athlete must get a signed clearance from a physician before returning to play. See 2010 NJ A.B. 2441 § 3 (LEXIS).

223. Larini, supra note 217.
to protect athletes from further injury and will do more to help doctors avoid liability than would simply adhering to the current standard of care in place for general practitioners.

2. Athletic Trainers

Professional athletes normally benefit from having ready access to a team doctor who is charged with clearing them to play following a head injury. Young athletes do not have such access, although some youth teams may have an athletic trainer on staff as the designated health care provider. The athletic trainer may be the first person to treat a young athlete with a head injury. In *Searles v. Trustees of St. Joseph’s College*, the court held that, like a physician, an athletic trainer owes a duty of care to athletes under the trainer’s supervision and must conform to the standard of care required of an ordinary careful trainer when providing care and treatment to athletes. To similar effect, in *Jarreau*, the court found that an athletic trainer had a duty of care to an athlete, which was met where the athletic trainer referred the athlete for medical treatment. The standard of care did not require that the athletic trainer have any special medical expertise. Canadian courts have adopted the same approach and have held that athletic trainers must use the level of care of an ordinary competent athletic trainer, with the standards for the most current knowledge and skills required set by the certifying programs or governing bodies of the particular sport.

In the United States, the Board of Certification (BOC) is the sole accredited certifying body for athletic trainers. The BOC sets the standards for athletic training, although most states also have regulations for licensed athletic trainers. The National Athletic Trainer’s Association (NATA) is a professional membership association for certified athletic trainers and currently has 30,000 members. NATA has issued a detailed position statement on the management of concussions that recommends identification and treatment techniques for athletic trainers. The statement discusses the

224. *Searles v. Tr. of St. Joseph’s Coll.*, 695 A.2d 1206, 1210 (Me. 1997) (college basketball player alleged that his coach and athletic trainer were negligent in forcing the plaintiff, a college basketball player, to play with an injury).
226. BARNES, supra note 167, at 310.
227. Id.
229. Id.
special consideration that must be given in cases involving young athletes who sustain concussions and advises that a more conservative approach should be taken when making RTP decisions in the case of young athletes. Most importantly, the statement outlines when an athlete should be referred to a physician, specifying that an athletic trainer must be able to recognize head injuries that require further medical attention and must provide the proper referral for advanced care, including adequate follow-up.

The NATA guidelines are applicable to all certified athletic trainers working in the United States. As such, it seems likely that United States courts will treat them as being relevant in determining if an athletic trainer meets the appropriate standard of care in cases of alleged negligence on the part of the trainer. As Searles and Jarreau confirm, an athletic trainer who fails to meet these guidelines when evaluating an athlete and who does not refer the injured athlete to a physician may be liable for negligence as a consequence of such failures.

The adoption of uniform RTP guidelines would help both athletic trainers and physicians understand their respective and supportive roles in dealing with sports-related concussions in youth athletes. Such adoption would foster better communication between the two groups and improve the manner in which concussions are dealt with, from the initial identification that a concussion has occurred through the making of the RTP decisions and follow-up.

The jurisprudence covered illustrates that those who are held liable for negligent conduct will likely change their approach to concussion prevention, assessment, and management in relation to the young athletes under their care in order to avoid any future liability. In this sense, liability has had an effect on self-regulation when it comes to the proper assessment and management of concussions in young athletes. However, the jurisprudence reviewed in this section supports the case that, to induce significant change in relation to concussion prevention and management in young athletes, governmental action such as concussion legislation will be most effective. This is due to the preemptive nature of concussion legislation as opposed to the piecemeal nature of self-regulation by stakeholders in the health and safety of young athletes based on the threat of liability for negligent conduct.


232. Id. at 291-92.
233. Id. at 290.
V. LEGISLATION TO REDUCE CONCUSSION INJURIES AND DEATHS

It is not surprising that the increased public awareness of the risks posed to young athletes by the incidence of concussions has provoked pressure on governments to address these risks with legislation. In the United States, there have been several legislative initiatives aimed at sports-related concussions in young athletes. These resulting laws that have been enacted are designed to protect young athletes from the consequences of second-impact syndrome and, in turn, to avoid costly lawsuits. The laws require that those involved in interscholastic athletics programs, including coaches and athletic trainers, be given the proper training in concussion assessment and management techniques. Coaches and athletic trainers are made responsible for educating young athletes and their parents about sports-related concussions and the serious consequences that can result where a young athlete returns to play prematurely after a head injury.

A. State Laws

Texas was the first state to pass a law requiring safety training for school staff to help them recognize the symptoms of athletics injuries in young athletes, including concussions. Washington was the first state to pass a law focusing exclusively on concussions in 2009. The Washington statute is known as the Zackery Lystedt Law and is named after the junior high football player who sustained second-impact syndrome during a game. The player survived after two brain surgeries but is confined to a wheelchair and continues to undergo therapy. The player settled a lawsuit against the...
school district. The Washington statute requires that school districts and the state interscholastic athletic associations work together to educate coaches, young athletes, and parents about the risks of sports-related concussions. In addition, a young athlete who is suspected of having a concussion must be removed from play and may not return to play until an evaluation has been performed by a licensed health care provider trained in the management of concussions. Thus, similar to the Ontario Physical Education Safety Guidelines, the Washington statute provides that a young athlete who suffers a head injury must receive written clearance from a physician before being permitted to return to play. Oregon has also enacted concussion legislation that is similar to that of the Washington statute but less stringent in that it does not require written medical clearance by a health care provider before a young athlete who has suffered a head injury is permitted to return to play. Under the Oregon statute, a young athlete is permitted to return to play the day after the head injury if he or she no longer has symptoms. The result is that, under the RTP protocol contained in the Oregon statute, coaches may make the RTP decision. As noted, this may have important ramifications for coaches by increasing their potential liability for claims in negligence.

The approach taken in the RTP protocol in the Washington protocol (and in the Ontario Physical Education Safety Guidelines) is clearly preferable from the perspective of safeguarding young athletes who suffer a head injury. It would be better still if this RTP protocol also meant that the physicians tasked with the responsibility for evaluating and “clearing” a young athlete for a return to play had to do so with reference to national uniform RTP guidelines. These guidelines would be based on a consensus of medical experts with specialized training in concussion assessment and management and would

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243. Id.
244. WASH. REV. CODE ANN, § 28A.600.190 (2).
245. Id. at (2)-(3).
246. Id. at (3).
249. OR. REV. STAT. § 336.485 (3).
establish uniform signs and symptoms respecting concussion assessment and would reflect a conservative step-wise approach to concussion management and RTP decisions. Non-medical factors such as the importance of a particular game or the role of the particular player on the team would be irrelevant considerations in the RTP decision.

1. Youth Recreational Sports

While the focus of the United States statutes is interscholastic athletics, they may also have implications for youth recreational sports such as Pop Warner Football or Little League Baseball. For example, the Washington law provides that private, non-profit youth programs must sign a statement of compliance confirming that the organization will comply with the concussion management policies established by the school district when using their facilities. Despite this provision, it appears that private youth sports programs conducted on properties not belonging to a school district are not subject to this compliance statement. In addition, the United States statutes do not require that coaching staffs involved in these programs receive the concussion training that is required for school’s coaches.

It is interesting to note that, under the United States statutes, health care providers, defined as physicians, athletic trainers, nurse practitioners, and other licensed medical professionals who are deemed to be volunteers, are not to be held liable for injuries resulting from RTP decisions unless there is a finding of “gross negligence or willful or wanton misconduct.” This statutory limitation on liability suggests that physicians who are not employed by the team or school will be immune from liability from an ordinary negligence claim, which seemingly gives them more protection than coaches and school boards in this situation. The provision was likely added in light of the fact that many health care providers volunteer their time to assist with youth teams and should therefore be offered more protection than those who are employed by a school.

In addition, it appears that licensed physicians and athletic trainers, among others, are qualified to “clear” an injured athlete to return to play following a concussion under the Washington statute, despite the fact that physicians normally have a higher standard and duty of care to athletes than athletic

250. See WASH. REV. CODE ANN. § 28A.600.190(1)-(2).

251. Id. at (4). Gross negligence has been defined as willfully and intentionally disregarding the consequences for others by acting or failing to act when there is a duty to do so. See 38 AM. JUR. 1ST § 47 (2010). Willful or wanton misconduct is more than gross negligence and is characterized as intentionally doing or omitting to do something, knowing that this will result in harm or with a disregard of the consequences. See DAN B. DOBBS, THE LAW OF TORTS 351 (2000).
However, the law specifies that licensed health care providers must be trained in the evaluation and management of concussions, which may put them in an even better position to identify head injuries than a general practitioner who does not have this training. Moreover, the athletic trainer would still have the duty to refer an athlete for further medical treatment where necessary.

Despite the distinction drawn between employees and volunteers, the Washington and Oregon statutes emphasize the importance of concussion education for school staff, athletes, and parents. This is an important focus and should help in increasing the awareness of the risks of sports-related concussions in young athletes and encourage young athletes to be open about their head injuries and related symptoms.

The Washington and Oregon statutes require that coaching staffs have adequate training to recognize and manage the treatment of head injuries. Unfortunately, however, the nature of concussions makes them much more difficult to diagnose than other injuries. Because concussions are an internal injury, their symptoms will not always be manifest. Also, concussions can result from what appears to be a harmless hit or fall.

In sum, the Washington statute appears to be the best state law model that exists. A key reason for this view is that it mandates a conservative approach in its RTP protocol and requires written clearance by a physician. The requirement that a physician evaluate and sign a clearance certificate before an athlete may return to play ensures that the considerations on which the RTP decision is made are restricted to medical ones. This relieves coaches, athletic trainers, parents, and others of the responsibility to make the RTP decision. It is the case, however, that coaches still have to make the initial request that a medical evaluation and medical clearance is required, and coaches must also ensure that the athlete carries out the request. The Washington statute also requires that the evaluating physician be trained in the management of concussions. That requirement recognizes the importance of ensuring that the special medical expertise that is required to accurately diagnose concussions is present.

States that are currently developing their own concussion laws have the benefit of the Washington model. They should be encouraged to adopt and improve upon it, perhaps by expanding the scope of the concussion law to

253. Id.
254. Id.
cover youth recreational organizations as well as schools, thereby ensuring that all young athletes enjoy the same safeguards against the risk of sport-related concussions.

B. Federal Law

United States federal legislation has also been introduced in the United States Senate to establish a five-year grant program that would provide states with $5 million in its first year for the development of concussion management strategies for middle schools and high schools.257 This federal law, known as the Concussion Treatment and Care Tools Act of 2009 (ConTACT),258 would amend Part B of Title III of the Public Health Services Act,259 adding “Concussion Management Guidelines with Respect to School-Aged Children.”260 The main objective of the federal law is to establish concussion management guidelines that address “the prevention, identification, treatment, and management of concussions . . . in school-aged children, including standards for such children to return to play after . . . a concussion.”261

Like the Washington and Oregon statutes, the federal law emphasizes concussion management training and the education of participants involved in interscholastic athletics, as well as the parents of young athletes.262 The federal law goes one step further in its school education requirement in that it provides that medical, athletic, and educational stakeholders should convene in order to help in establishing appropriate concussion guidelines.263 In addition, the federal law gives the Secretary of Health and Human Services a two-year timeline to establish the guidelines and requires that the Secretary submit a progress report no later than four years after enactment of the federal law.264 These provisions give the government oversight of the manner by which schools implement the guidelines, an important feature that is lacking in the Washington and Oregon statutes.

In sum, this state and federal concussion legislation essentially requires

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258. Id.
259. 42 U.S.C. 243 et seq.
260. This insertion would come after SEC. 317T. Note that “school-aged child” refers to individuals between the ages of five to eighteen years, ConTACT, supra note 257, at § 317U (e)(1).
261. Id. at § 317U (a)(1).
262. See generally ConTACT.
263. Id. at § 317U (a)(2).
264. Id. at § 317U (a)(1) and (d)(2).
that all schools implement standards relating to RTP protocols, such as having an athlete cleared by a medical professional as a condition to the athlete’s return to play after a head injury. The Washington statute provides a good example of the implementation of these standards, since the Washington Interscholastic Athletic Association now requires that all member schools abide by the Washington statute. This includes adopting their recommended policies for concussion management and the education of coaching staff, athletes, and parents. Member schools must also have athletes and their parents sign and return an information sheet about concussions before the athlete may participate in a school sport every year.265 The implementation of concussion guidelines by state athletic associations is laudable, but what the concussion laws fail to address is whether or not member schools must adopt the guidelines. It appears that, while state athletic associations are required to implement RTP guidelines under the Washington and Oregon laws, they can only recommend that member schools adopt their RTP policies.

Some may question the need for governments to enact concussion legislation. In support, it may be argued that such legislation imposes burdensome requirements on schools, sport organizations, participants, parents of young athletes, and physicians and other health care providers. These concerns, however, seem pale in relation to the serious risk posed by sports-related concussions for young athletes. In fact, as noted, there are important aspects of the concussion laws that have been enacted that may not go far enough in addressing the concussion assessment and management problems in relation to head injuries suffered by young athletes. In that connection, in the concussion legislation to date, there do not seem to be any provisions that set out sanctions for non-compliance by schools. Sanctions, such as probations or suspensions for a school’s athletic teams, would seem to be an effective way to ensure that schools implement the recommended guidelines and otherwise comply with concussion laws. It may be that, as a practical matter, sanctions are not required to ensure compliance by schools. Given the financial support that schools will receive from their state athletic associations or the Secretary of Health and Human Services in the case of the federal law, formal sanctions may not be needed.

VI. CONCLUSION

Young athletes are at risk. Medical evidence supports the consensus view of experts that sports-related concussions are a serious and potentially deadly

threat to adult and young athletes. Concussions are a particular problem for young athletes who, because of innate physiological differences with adult athletes, are more vulnerable to concussions and take longer to recover from them. The case for better preventative measures is clear and compelling, and that means fundamental change. Changes are needed in the rules of those sports in which young athletes participate to reduce the incidence of sports-related concussions. This may mean that the rules for a particular sport for young athletes may differ from the rules of the sport for professional or adult athletes. For example, a good case can be made for the elimination of body checking at all levels of ice hockey for young athletes, except perhaps for certain elite levels. The argument is made that body checking prepares a young athlete for the next level, but if body checking was eliminated at all levels for young athletes, that argument would ring hollow and the sport would be made much safer for young adults as a result.

The adoption of rule changes and policies in regard to concussions in North American professional leagues is an encouraging development. The fact that professional athletes and their teams are taking concussions more seriously, as evidenced by a conservative approach to return to play, speaks volumes to coaches in organized sports for young athletes, as well as to parents and young athletes. As well, changes in rules and policies at the professional level tend to be mirrored at the amateur levels.

Changes are also needed in the fundamental attitude and behavior of all stakeholders in organized sport for young athletes, including that of the young athletes themselves. These stakeholders must be made to understand and appreciate the importance of fair play and respect for opponents as being an integral part of organized sport. As well, there must be a fundamental change in attitude towards head injuries. There is nothing funny or trivial about a player having his or her “bell rung.” It is a singularly dangerous occurrence, and it must be treated as such by all stakeholders, coaches, athletic trainers, parents, and young athletes. Young athletes who have suffered a head injury must be made to understand that the results could be very serious for their long-term health. The predilection of young athletes to hide head injuries and the symptoms of a concussion must be actively discouraged.

The important point is made in the paper, however, that, while preventative measures are to be encouraged and continually enhanced, they are not a complete answer to the problem. The reality is that sports-related concussions cannot be eliminated. Their occurrence is an inevitable result of contact sports where aggressive contact is a fundamental part of the sport. In fact, concussions will occur even in non-contact sports as the result of accidental contact.

Given the inevitability that young athletes will suffer sports-related
concussions, this article makes the case that urgent action is needed to develop uniform RTP guidelines and protocols to deal with concussion assessment and post-concussion management programs. The key objective of these programs must be safeguarding the safety and long-term health of young athletes. Stated simply, when concussions inevitably occur, how can they be consistently and promptly identified and then effectively managed to avoid the risk of second-impact syndrome and the possibility of catastrophic injury or death.

The case is made in the paper that RTP guidelines are the key underpinning for an effective concussion assessment and post-concussion management program. This is especially true for young athletes. Professional athletes generally have ready access to team doctors and trainers who have expertise in dealing with concussions. Thus, when a professional athlete suffers a head injury, it can immediately be assessed to determine if there has been a concussion, and a supervised watch and rehabilitation program can be put in place for the injured player. For young athletes, RTP guidelines serve an important role in two principal ways. First, RTP guidelines raise awareness as to the risk posed by concussions to young athletes by informing and educating coaches, athletic trainers, and parents about the nature of concussions. Second, RTP guidelines assist these persons in establishing effective concussion assessment and management programs to deal with head injuries suffered by young athletes. While establishing RTP guidelines is an important step that should be taken by sports organizations and their governing bodies, it is suggested that the most effective RTP guidelines are those that are made uniform and that require a physician with the necessary expertise to evaluate and certify that a young athlete who has suffered a head injury is fit to return to play. The RTP decision should be made based solely on medical factors, not non-medical ones. It would be a helpful development if professional leagues in North America adopted uniform concussion guidelines and actively encouraged youth leagues to do the same.

United States and Canadian jurisprudence confirms that, as a voluntary participant in an organized sport, a young athlete should be taken to have voluntarily accepted some degree of risk inherent in that sport. This does not mean, however, that young participants bear the full risk and responsibility for losses and damages they experience when they suffer a sports-related concussion. The jurisprudence makes it clear that sports organizations, schools, coaches, and health care providers all owe a duty of care in relation to young athletes, who in one way or another are under their supervision or care. The standard of care depends on the status or position of such persons and their role in the supervision or care of the young athlete. While the threat of liability may encourage self-regulation by these various groups who owe a duty of care to young athletes, the most effective change will result from
preemptive concussion legislation.

United States and Canadian legislation aimed at the prevention and management of sports-related concussions in young athletes has been a fairly recent and welcome development. This legislation evidences the growing public awareness of the threat posed for young athletes by sports-related concussions. The principal thrusts of this legislation are two-fold. First, it is to increase the awareness of the problem of the incidence of sports-related concussions in young athletes among schools, coaches, athletic trainers, parents, and young athletes. This increased awareness is important because, as noted, young athletes do not have ready access to the same specialized concussion expertise as professional athletes. Thus, it is important that coaches, athletic trainers, and young athletes themselves be attuned to the threat posed by sports-related concussions and understand and be vigilant for concussion symptoms. Second, the establishment of national or North American uniform concussion guidelines for young athletes, which are mandated by federal, state, or provincial legislation, would also be a positive development.

A. Recommendations

As to specific recommendations: (1) changes should be made to the rules of those sports in which young athletes participate to reduce the incidence of sports-related concussions; (2) attitude and behavioral changes are needed (i) to help all stakeholders understand the seriousness of concussions, (ii) to encourage young athletes to be candid about their head injuries, and (iii) to promote fair play and respect for opponents, which contribute to reducing the incidence of concussions; (3) a panel of medical experts should establish a national or North American-wide uniform consensus statement on RTP concussion guidelines for young athletes that will include (i) a conservative approach to return to play, (ii) written medical clearance for a known or suspected concussion by a physician trained in the management of concussions before a young athlete can return to play, and (iii) a health care professional on-site if possible during games and practices with training in assessment and management of concussions in young athletes; (4) RTP decisions should be based solely on medical factors; (5) these uniform concussions guidelines should be mandated by federal, state, or provincial legislation with (i) concussion education for all those involved in sport, including coaching staff, athletes, and parents, and (ii) government oversight and sanctions for failing to adhere to the uniform guidelines such as suspensions, if needed; and (6) professional sports leagues in North America should endorse uniform concussion guidelines, such as the Zurich Consensus
Statement, to encourage youth and school athletic associations to adopt their own uniform concussion guidelines.