

CONCUSSION EDUCATION PLAN AND GUIDELINES FOR CONNECTICUT SCHOOLS

Connecticut State Department of Education



Connecticut State Department of Education

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Concussion Education Plan and Guidelines for Connecticut Schools

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Introduction

A concussion is a type of traumatic brain injury (TBI) caused by a bump, blow, or jolt to the head that can change the way the brain normally works. Seventy percent of concussions occur without direct head impact but instead from rotational or velocity injuries that cause the brain to move quickly back and forth (Neurosurgery 2003; 4:799). Each year, emergency departments in the United States treat an estimated 173,285 sports- and recreation-related traumatic brain injuries (TBIs), including concussions, among children and adolescents, from birth to 19 years (CDC 2014)

Concussions may affect a student's ability to learn. Because every brain and every student are different, every concussion is different. Recovery time will be unique to each student, requiring an individualized approach to determine when it is appropriate to begin to return to athletic activity and regular classes. Some students may not miss any school and may need accommodations no greater than for someone who has suffered a minor illness. Others may have months of enduring symptoms that can significantly affect academic performance and overall ability to function. Mental and physical rest are essential to concussion recovery. If not properly managed from the time of initial injury, recovery time can be extended and the student may be exposed to increased risk of further injury and also adversely affect the student's academic progress. Therefore, it is essential to have a concussion education plan in place to help concussed students heal while continuing their education.

Concussions are both a medical and an educational issue. Any accommodations created by schools are based on an educational need that happens to be caused by a medical concern. Assessing challenges with learning and school performance and creating or making changes to a student's learning plan, while driven by medical diagnoses, are based on the impact on the student's educational performance and ability to access and participate in general education. Therefore, it is appropriate for schools to address learning difficulties caused by a concussion.

Purpose

Public Act No. 14-66: An Act Concerning Youth Athletics and Concussions requires that on or before January 1, 2015, the State Board of Education, in consultation with the Commissioner of Public Health, the governing authority for intramural and interscholastic athletics, an appropriate organization representing licensed athletic trainers, and an organization representing county medical associations, develop or approve a concussion education plan for use by local and regional boards of education. Each local and regional board of education must then implement such plan by using written materials, online training or videos, or in-person training that addresses, at a minimum the following:

1. The recognition of signs or symptoms of concussion.
2. The means of obtaining proper medical treatment for a person suspected of sustaining a concussion.
3. The nature and risks of concussions, including the danger of continuing to engage in athletic activity after sustaining a concussion.
4. The proper procedures for allowing a student athlete who has sustained a concussion to return to athletic activity.
5. Current best practices in the prevention and treatment of a concussion.

The purpose of the *Concussion Education Plan and Guidelines for Connecticut Schools* is to provide accurate information, resources and guidance needed to implement school district concussion education plans. Besides the five requirements listed above, this document includes implementation guidance; suggested roles and responsibilities for the range of school staff involved; applicable state and federal laws; a glossary of terms; and other useful information to assist in implementing concussion education plans for concussion prevention, recognition, and management.

How to Use This Guide to Implement the Concussion Education Plan

This document has been developed to guide local and regional boards of education in implementing concussion education plans. Local and regional boards of education should develop and incorporate their individual school district policies and procedures to implement concussion education plans. This guidance is organized into the following sections:

- Introduction
- Purpose
- Section 1: Concussion Education and Other Requirements for Students, Parents and Coaches
- Section 2: Concussion Education Plan
- Section 3: Implementation of the Concussion Education Plan
- Resources
- References
- Appendixes
- Glossary

[Section 1](#) identifies the concussion education, training and other requirements for student athletes, their parents and guardians, and coaches for athletic activities.

[Section 2](#) includes scientific, research-based information regarding concussion signs and symptoms, prevention, treatment, management, return to athletic activity procedures and current best practices that are the foundation for implementing concussion education plans.

[Section 3](#) provides action steps essential for the implementation of concussion education plans.

Several [resources](#) for educators, student athletes, parents, and other school staff are provided.

The appendixes provide practical guidance for the development of [school concussion management teams](#), their [roles and responsibilities](#), a concussion education plan [implementation checklist](#), as well as school district [reporting requirements](#), and [applicable state and federal laws](#).

The [glossary](#) defines commonly used terms.

A list of [references](#) used in the development of this guidance is included.

Section 1

Concussion Education and Other Requirements for Students, Parents, and Coaches

Student Athletes

- Before participating in any intramural or interscholastic athletic activity for the school year beginning July 1, 2015, student athletes must (1) read written materials, (2) view online training or videos, or (3) attend in-person training regarding the school district's concussion education plan as provided by the local or regional board of education.

Parents and Guardians of Student Athletes

- Prior to participating in any intramural or interscholastic athletic activity for the school year beginning July 1, 2015, a parent or guardian of each student athlete must (1) read written materials, (2) view online training or videos, or (3) attend in-person training regarding the school district's concussion education plan as provided by the local or regional board of education.
- Parents or legal guardians of student athletes must sign and present an informed consent form to the school district attesting to the fact that they have received a copy of such form and that they authorize the student athlete to participate in the athletic activity. Such informed consent form will be approved by the State Board of Education and provided by the local or regional board of education and shall include, at a minimum:
 - a summary of the concussion education plan; and
 - a summary of the applicable local or regional board of education's policies regarding concussions.

Coaches

- A coach of intramural or interscholastic athletics shall complete an initial training course regarding concussions approved by the State Board of Education. Such training course shall include, but not be limited to:
 - the recognition of the signs and symptoms of a concussion;
 - the means of obtaining proper medical treatment for a person suspected of having a concussion;
 - the nature and risk of concussions, including the danger of continuing to engage in athletic activity after sustaining a concussion; and
 - the proper method of allowing a student athlete who has sustained a concussion to return to athletic activity.
- Any coach who has completed the initial training course shall annually review current and relevant information developed or approved by the State Board of Education regarding concussions prior to commencing the coaching assignment for the season of such school athletics. Such annual review shall not be required in any year when such coach is required to complete the refresher course for reissuance of his or her coaching permit. Such refresher course shall include, but not be limited to:
 - an overview of key recognition and safety practices;
 - an update on medical developments and current best practices in the field of concussion research;
 - prevention and treatment;

- an update on new relevant federal, state and local laws and regulations;
- for football coaches, current best practices regarding coaching the sport of football, including, but not limited to, frequency of games and full contact practices and scrimmages as identified by the governing authority for intramural and interscholastic athletics.
- For the school year commencing July 1, 2015, and each school year thereafter, a coach shall complete a refresher course, not later than five years after completion of the initial training course, as a condition of the reissuance of a coaching permit from the State Department of Education. Such coach shall thereafter retake such refresher course at least once every five years as a condition of the reissuance of a coaching permit.

Section 2

Concussion Education Plan

Most students with a concussion recover quickly and fully. But for some students, symptoms can last for days, weeks, or longer. In general, recovery may be slower among older adults, young children, and teens. Those who have had a concussion in the past are also at risk of having another one and may find that it takes longer to recover if they have another concussion (CDC, Injury Prevention & Control: Traumatic Brain Injury).

A concussion education plan must address the following provisions from Public Act No. 14-66: An Act Concerning Youth Athletics and Concussions:

- For the school year commencing July 1, 2015, and each school year thereafter, each local and regional board of education shall prohibit a student athlete from participating in any intramural or interscholastic athletic activity unless the student athlete, and a parent or guardian of such student athlete, (1) reads written materials, (2) views online training or videos, or (3) attends in-person training regarding the concussion education plan.
- For the school year commencing July 1, 2015, and each school year thereafter, each school shall provide each participating student athlete's parent or legal guardian with a copy of the informed consent form developed or approved by the State Board of Education. Such informed consent form shall include, at a minimum, (A) a summary of the concussion education plan, and (B) a summary of the applicable local or regional board of education's policies regarding concussions. Each school must obtain the parent or legal guardian's signature, attesting to the fact that such parent or legal guardian has received a copy of such form and authorizes the student athlete to participate in the athletic activity.
- The coach of any intramural or interscholastic athletics shall immediately remove a student athlete from participating in any intramural or interscholastic athletic activity who (A) is observed to exhibit signs, symptoms or behaviors consistent with a concussion following an observed or suspected blow to the head or body, or (B) is diagnosed with a concussion, regardless of when such concussion may have occurred. Upon such removal, a qualified school employee, as defined in subsection (e) of section 10-212a of the Connecticut General Statutes, shall notify the student athlete's parent or legal guardian that the student athlete has exhibited such signs, symptoms, or behaviors consistent with a concussion or has been diagnosed with a concussion. Such qualified school employee shall provide such notification not later than 24 hours after such removal and shall make a reasonable effort to provide such notification immediately after such removal.
- The coach shall not permit such student athlete to participate in any supervised team activities involving physical exertion, including, but not limited to, practices, games or competitions, until such student athlete receives written clearance to participate in such supervised team activities involving physical exertion from a licensed health care professional trained in the evaluation and management of concussions.
- Following clearance outlined above, the coach shall not permit such student athlete to participate in any full, unrestricted supervised team activities without limitations on contact or physical exertion, including, but not limited to, practices, games, or competitions, until such student athlete (A) no longer exhibits signs, symptoms or behaviors consistent with a concussion at rest or with exertion, and (B) receives written clearance to participate in such full, unrestricted supervised team activities from a licensed health care professional trained in the evaluation and management of concussions.

The Recognition of Signs or Symptoms of a Concussion

There are stereotypical signs and symptoms associated with concussion. Directed questioning is necessary to obtain these details, as students (or their families) often do not think to offer information about these symptoms in open-ended questioning. Common symptoms in concussion are generally divided into physical/somatic, cognitive/thinking/remembering, sleep, and emotional/mood disruption categories. Attention to each individual symptom on the checklist provided in table 1 below is important while obtaining a clinical history of the student (Master and Grady 2012).

Table 1. Signs and Symptoms of Concussions

Physical	Sleep	Cognitive (Thinking/Remembering)	Mood Disruption
Headache	Sleeping more or less than usual	Difficulty thinking or concentrating	More emotional
Nausea	Drowsiness or fatigue	Difficulty remembering	Irritable
Vomiting	Trouble falling asleep	Confusion	Sad
Imbalance	Trouble maintaining sleep	Feeling mentally foggy	Nervous
Slowed reaction time		Feeling slowed down	Depressed
Dizziness		Decreased attention	
Sensitivity to light		Decreased retention	
Sensitivity to sound		Distractibility	
Fuzzy or blurry vision		Amnesia	

Source: adapted from Pardini et al., 2004.

Athletes who experience any of the signs and symptoms listed below after a bump, blow, or jolt to the head or body should be kept out of play the day of the injury and until a health care professional, experienced in evaluating concussions, provides written clearance that they are symptom-free and can return to play. It is important to note that some athletes may not experience and/or report symptoms until hours or days after the injury. Most people with a concussion will recover quickly and fully. For some people, however, signs and symptoms of a concussion can last for days, weeks, or longer.

Potential Signs Observed by Coaches, Athletic Trainers, Parents, or Others:

- Appears dazed or stunned
- Is confused about assignment or position
- Forgets an instruction
- Is unsure of game, score, or opponent
- Moves clumsily
- Answers questions slowly
- Loses consciousness (even briefly)
- Shows mood, behavior, or personality changes
- Can't recall events prior to hit or fall
- Can't recall events after hit or fall

Potential Symptoms Reported by Athlete:

- Headache or "pressure" in head

- Nausea or vomiting
- Balance problems or dizziness
- Double or blurry vision
- Sensitivity to light
- Sensitivity to noise
- Feeling sluggish, hazy, foggy, or groggy
- Concentration or memory problems
- Confusion
- Does not “feel right” or is “feeling down” (CDC, How Can I Recognize a Possible Concussion?)

The Means of Obtaining Proper Medical Treatment for a Person Suspected of Sustaining a Concussion

Students with a suspected concussion should be seen by a health care professional. Coaches and athletic trainers are the supervising adults during intramural and interscholastic athletics and are therefore responsible for ensuring that students are removed from play and are provided with the appropriate medical attention. The coach shall not permit student athletes who are suspected of sustaining a concussion or who have been diagnosed with a concussion to participate in any supervised team activities involving physical exertion, including, but not limited to, practices, games or competitions, until such student athlete receives written clearance to participate in such supervised team activities involving physical exertion from a licensed health care professional trained in the evaluation and management of concussions.

After a concussion diagnosis, a comprehensive medical management plan should be implemented that follows the district’s concussion policy and includes communication among all those involved. This plan should include the family (such as, patient and parents), school personnel (such as, teachers, administrators, counselors, coaches), school medical personnel (such as, school nurses, athletic trainers and medical advisers), and community referral sources (such as, team physician, other health care referral sources). Communication among all these groups is essential for appropriate management of a concussed athlete (Journal of Athletic Training, 2014;49(2):255).

The following four-step action plan adapted from the CDC provides information on what should be done if a concussion occurs or is suspected.

1. Immediately remove the athlete from play. Look for signs and symptoms of a concussion if the athlete has experienced a bump or blow to the head or body. When in doubt, keep the athlete out of play.
2. Ensure that the athlete is evaluated by a health care professional. Do not try to judge the severity of the injury yourself. Health care professionals have a number of methods that they can use to assess the severity of concussions. Recording the following information can help them in assessing the athlete after the injury:
 - cause of the injury and force of the hit or blow to the head or body;
 - any loss of consciousness (passed out/knocked out) and if so, for how long;
 - any memory loss immediately following the injury;
 - any seizures immediately following the injury; and
 - if known, the number of previous concussions.
3. Inform the athlete’s parents or guardians immediately or as soon as possible (required to occur within 24 hours in Connecticut) about the suspected concussion and that the athlete should be seen by a health care professional and that written clearance by a licensed health care professional trained in the

evaluation and management of concussions must be provided to the school in order for the student athlete to participate in team activities involving physical exertion.

4. Keep the athlete out of play the day of the injury and until a licensed health care professional, experienced in evaluating for concussion, determines that the athlete is symptom-free and clears the student to begin the [return-to-play protocol](#). A repeat concussion that occurs before the brain recovers from the first—usually within a short period of time (hours, days, or weeks)—can slow recovery or increase the likelihood of having long-term problems. In rare cases, repeat concussions can result in edema (brain swelling), permanent brain damage, and even death (CDC 2012).

Note: Best practice suggests that the athlete should be kept out of play until he or she has a normal exam, is back to his or her pre-injury academic participation and has completed a supervised graduated exercise (“Return-to-Play”) protocol (Br J Sports Med 2013;47: 250–258; Journal of Athletic Training 2014;49(2):245–265; Pediatric Annals Sept. 2012, 41 (9):1-6).

Concussion Emergency Treatment

Call 911 if the student:

- is vomiting repeatedly (more than once);
- has unequal pupils;
- is confused or agitated;
- has weakness on one side of the body;
- passes out or is unconscious;
- is very drowsy or unable to wake up;
- has neck pain after a fall;
- has slurred speech;
- has a seizure (CDC 2012); and
- other: any sign or symptom that is rapidly progressing or increasing in severity.

The Nature and Risks of Concussions, Including the Danger of Continuing to Engage in Athletic Activity after Sustaining a Concussion

The severity of a TBI or concussion may range from “mild,” (such as a brief change in mental status or consciousness), to “severe,” (such as an extended period of unconsciousness or amnesia after the injury). Concussions can cause a wide range of functional short- or long-term changes affecting thinking (i.e., memory and reasoning); sensation (i.e., touch, taste, and smell); language (i.e., communication, expression, and understanding); or emotions (i.e., depression, anxiety, personality changes, aggression, acting out, and social inappropriateness).

TBI can also cause epilepsy and increase the risk for conditions such as Alzheimer’s disease, Parkinson’s disease, and other brain disorders that become more prevalent with age. About 75 percent of TBIs that occur each year are concussions or other forms of mild TBI. Repeated mild TBIs occurring over an extended period of time (i.e., months, years) can result in cumulative neurological and cognitive deficits. Repeated mild TBIs occurring within a short period of time (such as, hours, days, or weeks) can be catastrophic or fatal.

To better understand the symptoms of concussion and the risk for long-term complications, the following adapted recommendations from the American Academy of Pediatrics (AAP) include that:

- All athletes with suspected concussions should not return to play until they see a doctor (or health care provider). Health care providers can confirm the diagnosis of concussion; determine the need for any specialized tests, such as a computed tomography (CT) scan, magnetic resonance imaging (MRI), or neuropsychological tests; and determine when the athlete is ready to safely return to play.

Note: Following concussion, CTs and MRIs are almost invariably normal, and should not be used as the sole determination of return to play (Clin J Sports Med 2001;11:166).

- Athletes should rest their bodies and brains until they are no longer experiencing any symptoms of concussion. Physical and cognitive exertion, such as homework, playing video games, texting, using a computer, or watching TV may worsen symptoms.
- Symptoms of a concussion usually resolve in 7 to 10 days, but for some athletes, it may take weeks or months to fully recover.
- Neuropsychological testing can provide objective data to athletes and their families, but testing is just one step in the complete management of sport-related concussions.
- Retirement from contact or collision sports should be considered for an athlete who has sustained multiple concussions or who has suffered symptoms for longer than three months. Negative effects from concussions can accumulate from each event (AAP, Sports-Related Concussion: Understanding the Risks, Signs & Symptoms).

The Proper Procedures for Allowing a Student Athlete Who Has Sustained a Concussion to Return to Athletic Activity

When managing an athlete with a concussion, the management plan should cover both returning to school and to play, and should:

- include monitoring both physical and cognitive activities;
- consider concussion history; and
- be individualized to the athlete.

An athlete should be referred for follow-up care from a health care professional who can help him or her gradually return to school and to play when fully recovered. An athlete who has been diagnosed with a concussion should not return to practice or play the same day. In addition, Public Act No. 14-66: An Act Concerning Youth Athletics and Concussions requires that:

...coaches shall not permit such student athlete to participate in any supervised team activities involving physical exertion, including, but not limited to, practices, games or competitions, until such student athlete receives written clearance to participate in such supervised team activities involving physical exertion from a licensed health care professional trained in the evaluation and management of concussions. Following clearance, the coach shall not permit such student athlete to participate in any full, unrestricted supervised team activities without limitations on contact or physical exertion, including, but not limited to, practices, games or competitions, until such student athlete no longer exhibits signs, symptoms or behaviors consistent with a concussion at rest or with exertion, and receives written clearance to participate in such full, unrestricted supervised team activities from a licensed health care professional trained in the evaluation and management of concussions.

There are five gradual steps to help safely return an athlete to play, adapted from the [International Concussion Consensus Guidelines](#).

Suggested Return-to-Play Progression

Step 1: Light Aerobic Exercise

Goal: only to increase an athlete's heart rate

Time: 5 to 10 minutes

Activities: exercise bike, walking, or light jogging. No weight lifting or resistance training, jumping, or hard running

Step 2: Moderate Exercise

Goal: limited body and head movement

Time: reduced from typical routine

Activities: moderate jogging, brief running, moderate-intensity stationary biking, and moderate-intensity weightlifting and resistance training. No head impact activities.

Step 3: Noncontact Exercise

Goal: more intense, but noncontact movement

Time: close to typical routine

Activities: running, high-intensity stationary biking, the player's regular weightlifting routine, and noncontact sport-specific drills. This stage may add some cognitive component to practice in addition to the aerobic and movement components introduced in Steps 1 and 2.

Step 4: Practice

Goal: reintegrate in full contact practice with vigilant observation by the coach and/or athletic trainer

Step 5: Return to Play

Goal: return to competition

It is important to monitor symptoms and cognitive function carefully during each increase of exertion. Athletes should only progress to the next level of exertion if they are not experiencing symptoms at the current level. If symptoms return at any step an athlete should stop these activities as this may be a sign that the athlete is pushing too hard. Only after additional rest, when the athlete is once again not experiencing symptoms for a minimum of 24 hours, should he or she start again at the step during which symptoms were experienced.

The Return-to-Play Progression process is best conducted through a team approach and by a health care professional who knows the athlete's physical abilities and endurance, such as the school's athletic trainer in collaboration with the school nurse. By gauging the athlete's performance on each individual step, a health care professional will be able to determine how far to progress the athlete on a given day. In some cases, the athlete may be able to work through one step in a single day, while in other cases it may take several days to work through an individual step. It may take several weeks to months to work through the entire five-step progression.

While most athletes will recover quickly and fully following a concussion, some will have symptoms for weeks or longer. Athletes should be referred to a concussion specialist if:

1. Symptoms worsen at any time.
2. Symptoms have not gone away after 10-14 days.
3. The athlete has a history of multiple concussions or risk factors for prolonged recovery. This may include a history of migraines, depression, mood disorders, or anxiety, as well as developmental disorders such as learning disabilities and Attention Deficit Hyperactivity Disorder (CDC, A “Heads Up” on Managing Return to Play).

Current Best Practices in the Prevention and Treatment of a Concussion

Prevention

There are many ways to reduce the chances of sustaining a concussion during participation in athletic activities. Schools should ensure that during athletic contests and practices, athletes:

- use the correct protective equipment (should be fitted and maintained properly in order to provide the expected protection);
- follow all safety rules and the rules of the sport;
- practice good sportsmanship; and
- do not return to play with a known or suspected concussion until they have been evaluated and given *written permission* by an appropriate health care professional.

Treatment

Education and recognition are the best tools for improving the care of the athlete with a concussion. Students who have been diagnosed with a concussion require both physical and cognitive rest. Delay in instituting health care provider orders for such rest may prolong recovery from a concussion. The health care provider’s orders for avoidance of cognitive and physical activity and graduated return to activity should be followed and monitored both at home and at school. Districts should consult their school medical director if further discussion and/or clarification is needed regarding a private medical provider’s orders, or in the absence of a private medical provider’s orders. Additionally, children and adolescents are at increased risk of protracted recovery and severe, potentially permanent disability (e.g., early dementia, also known as chronic traumatic encephalopathy) or even death if they sustain another concussion before fully recovering from the first concussion. Therefore, it is imperative that a student is fully recovered before resuming activities that may result in another concussion. Best practice warrants that, whenever there is a question of safety, a health care professional errs on the side of caution and holds the athlete out for a game, the remainder of the season, or even a full year.

Cognitive Rest

Cognitive rest requires that the student avoid participation in, or exposure to, activities that require concentration or mental stimulation including, but not limited to:

- computers and video games;
- television viewing;
- texting;
- cell phone use;
- reading or writing;
- studying or homework;

- taking a test or completing significant projects;
- loud music; or
- bright lights.

Parents/guardians, teachers, and other school staff should watch for signs of concussion symptoms such as fatigue, irritability, headaches, blurred vision, or dizziness reappearing with any type of mental activity or stimulation. If any of these signs and symptoms occur, the student should cease the activity. Return of symptoms should guide whether the student should participate in an activity. Initially, a student with a concussion may be able to attend school for only a few hours per day and/or need rest periods during the day. Students may exhibit increased difficulties with focusing, memory, learning new information, and/or an increase in irritability or impulsivity. Districts should have policies and procedures in place related to transitioning students back to school and for making accommodations for missed tests and assignments. An Individual Health Care Plan with academic accommodations is an example of a guideline that may be used. If the student's symptoms last longer than seven to 14 days, a medical provider should consider referring the student for an evaluation by a neuropsychologist, neurologist, psychiatrist, or other medical specialist in traumatic brain injury.

Note: Increased cognitive activity, as well as too little cognitive activity, is associated with longer recovery from concussion. Thus, it is desirable to pace a student's academic load below symptom threshold (Pediatrics 2014; 133:1–6).

Schools are permitted to authorize certain testing accommodations for students who incur an injury within a certain timeframe prior to the test administration. In some situations, a 504 plan may be appropriate for students whose concussion symptoms are significant or whose symptoms last six months or longer. Section 504 is part of the Rehabilitation Act of 1973 and is designed to protect the rights of individuals with disabilities in programs and activities that receive federal financial assistance from the U.S. Department of Education. Section 504 requires a school district to provide a free, appropriate, public education (FAPE) to each qualified student with a disability who is in the school district's jurisdiction, regardless of the nature or severity of the disability. Under Section 504, FAPE consists of the provision of regular or special education and related aids and services designed to meet the student's individual educational needs as adequately as the needs of nondisabled students are met. (More information is available on Section 504 law at <http://www2.ed.gov/about/offices/list/ocr/index.html>. Questions and Answers on Section 504 including information on addressing temporary impairments such as concussions is available at <http://www2.ed.gov/about/offices/list/ocr/504faq.html>).

Physical Rest

Physical rest includes getting adequate sleep, taking frequent rest periods or naps, and avoiding physical activity that requires exertion. Some activities that should be avoided include, but are not limited to:

- activities that result in contact and collision and are high risk for re-injury;
- high speed and/or intense exercise and/or sports;
- any activity that results in an increased heart rate or increased head pressure (such as
- straining or strength training).

Students may experience frustration or stress about having to limit activities or having difficulties keeping up in school. They should be supported and reassured that they will be able to resume activities as soon as it is safe, and that it is important to avoid activities which will delay their recovery. Students should be

informed that the concussion will resolve more quickly when they follow their medical provider's orders. Students will need encouragement and support at home and school until symptoms fully resolve (CDC, Heads Up: Preventing Concussion).

Section 3

Implementation of the Concussion Education Plan

The most effective implementation of concussion education plans is the result of a multidisciplinary approach with collaboration, communication and team planning among school administrators, teachers, coaches, school nurses, athletic directors, athletic trainers, other school staff, health care providers, parents and students. School districts should have clear districtwide policies and procedures that inform team planning regarding the prevention and management of concussions, return-to-play protocols and prevention of further injuries.

School districts should customize the concussion education plan by incorporating their local or regional board of education policies and procedures related to concussion education, prevention and management, including:

- Identification of a School Concussion Management Team (see appendix A, "[School Concussion Management Team](#)")
- Identification of roles and responsibilities of members of the School Concussion Management Team and school personnel (see appendix B, "[Suggested Roles and Responsibilities of the School Concussion Management Team and School Personnel](#)")
- Procedures to ensure the provision of concussion education to student athletes prior to participating in any intramural or interscholastic athletic activity (see section 1, "[Concussion Education and other Requirements for Students, Parents, and Coaches](#)")
- Procedures to ensure the provision of concussion education to parents or guardians of student athletes prior to the athlete participating in any intramural or interscholastic athletic activity (see section 1, "[Concussion Education and other Requirements for Students, Parents, and Coaches](#)")
- Procedures for obtaining parental or legal guardian informed consent attesting to the fact that they have received a copy of such consent form and that they authorize the student athlete to participate in the athletic activity (see section 1, "[Concussion Education and other Requirements for Students, Parents, and Coaches](#)")
- Procedures to implement if a student athlete is suspected of sustaining a concussion (see "[The Means of Obtaining Proper Medical Treatment for a Person Suspected of Sustaining a Concussion](#)" in section 2)
- Communication protocols to ensure the notification by qualified school employees to parents or legal guardians when a concussion has occurred or is suspected in their child as soon as possible and within 24 hours (see section 2, "[Concussion Education Plan](#)" and appendix E, "[Applicable State and Federal Laws](#)")
- Communication procedures for the timely reporting of all occurrences of concussions and suspected concussions to the school health services staff (such as the school nurse) and other school personnel (such as administrators, athletic trainers, athletic directors, other medical personnel, school counselors, teachers, coaches) to ensure proper care and recovery (see "[Current Best Practices in the Prevention and Treatment of a Concussion](#)" in section 2 and appendix B, "[Suggested Roles and Responsibilities of the School Concussion Management Team and School Personnel](#)")
- Adoption of return-to-play protocols or procedures (see "[The Proper Procedures for Allowing a Student Athlete Who Has Sustained a Concussion to Return to Athletic Activity](#)" in section 2)
- Procedures for the collection of all occurrences of concussions for reporting to the State Board of

Education, including: (1) the nature and extent of the concussion, and (2) the circumstances in which the student sustained the concussion (see appendix D, "[Reporting Requirements by Local and Regional Boards of Education](#)").

Note: A Concussion Education Plan Implementation Checklist is provided in [appendix C](#).

Resources

Long-Term Learning Strategies for Students with Chronic Cognitive Deficits Following a Concussion

- [Brain Injury in Children and Youth: A Manual for Educators](#)
- [Colorado DED TBI Matrix Guide](#)
- [LEARNet: A Resource for Teachers, Clinicians, Parents, and Students by the Brain Injury Association of New York State](#)

Resources for Athletes

- [Athletes Fact Sheet](#)
- [Downloadable and customizable PDFs and fact sheets](#)

Resources for Parents

- [Information for Parents](#)
- [Parents Fact Sheet for high school sports](#)
- [Parents Fact Sheet for concussions occurring outside sports](#)

Other Resources

- [The Centers for Disease Control and Prevention \(CDC\). Heads Up: Concussion](#)
- [CDC Clinician Resource Center](#)
- [CDC Heads Up Concussion training module](#)
- [CDC Concussion in Sports. Educational Materials, Videos, PSAs, Podcasts, Promotional Materials for administrators, school nurses, coaches, parents and athletes](#)
- [Concussion in High School Sports](#)
- [Downloadable and customizable PDFs and fact sheets](#)
- [Resources for concussion awareness in the school community outside sports](#)
- [The Centers for Disease Control and Prevention. \(CDC\). Resource Center](#)
- [Connecticut Interscholastic Athletic Conference \(CIAC\). Concussion Central](#)

Appendix A

School Concussion Management Team

(Adapted from the Oregon Concussion Awareness and Management Program)

School concussion management teams may be formed to create and implement a concussion management plan with sound procedures that support a concussed student. Suggestions for team members are as follows:

Student athlete

Empowering students to self-assess symptoms and report may be a challenge. Consider inviting an influential student-athlete to the team. Help create an atmosphere of acceptance for reporting suspected and diagnosed concussions, and encourage athletes to report a fellow athlete's symptoms.

Parents and guardians

Invite a parent leader to the team who could be influential with parent organizations that support athletics and gaining parental and community support for district policies.

School administrator

Administrator support is needed to change the culture surrounding sports concussions, put systems in place to manage concussions effectively, and provide the programs necessary to return students to full activity (athletics and academics) safely.

School medical adviser

It is important that the school medical adviser is appropriately trained in the current knowledge about concussion.

Licensed health care professional

Student athletes who are suspected of or have a concussion must receive written clearance from a licensed health care professional trained in the evaluation and management of concussions to participate in supervised team activities.

School nurse

The school nurse is the lead health and medical school staff member who works in conjunction with the athletic trainer (when available), athletic director, coaches, school faculty, counselors, and administrators, as well as the student-athlete's health care provider and family, in order to provide the best healing environment possible. In the case of a concussion, school nurses need to be able to recognize signs and symptoms, be aware of risks associated with recurrent injury, and make recommendations to student-athletes, parents, and school officials on proper care and recovery.

Physical education director/athletic director (AD)

The physical education or athletic director's leadership is a crucial component of good concussion management. They can support coach/athlete/parent training, promote a culture of awareness, ensure the

teaching of safe techniques and sportsmanship, ensure proper and well maintained equipment, monitor appropriate incident protocols, promote good officiating, and encourage effective tracking of injuries.

Certified athletic trainer (ATC)

Certified athletic trainers (ATCs) are medical experts in preventing, recognizing, managing and rehabilitating injuries that result from physical activity. The ATC in a school environment works under the direction of a licensed physician, in collaboration with the school nurse and in cooperation with other health care professionals, athletic or physical education directors, coaches and parents.

Coach

Coaches play a key role in concussion management. They are responsible for pulling an athlete from competition or practice immediately after **suspecting** a concussion. Securing buy-in from the coaching staff is crucial to the safety of the athlete and to the success of the return to play protocol. Having a coach serve as the liaison between the school concussion management team and the other coaching staff can help ensure effective communication and understanding.

Teachers

Teachers are critical to student success postconcussion. Teachers need to have a strong understanding of the potential cognitive, behavioral, emotional, and physical symptoms of a concussion. A school concussion management team representative from the teaching staff can work with the student's teachers to ensure appropriate classroom accommodations.

School counselor

The school counselor is the ideal lead staff person to inform teachers of needed learning accommodations while the student is symptomatic. They can provide information needed for making decisions about return to activity, can work with the student's teachers to ensure appropriate classroom accommodations, and can refer the student to more formalized supports such as 504 plans or Individualized Education Programs (IEP).

School psychologist

School psychologists can help with assessment and test results interpretation.

Adapted from Oregon Concussion Awareness and Management Program. [*Max's Law: Concussion Management Implementation Guide for School Administrators*](#).

Appendix B

Suggested Roles and Responsibilities of the School Concussion Management Team and School Personnel

(Adapted from the University of the State of New York, State Education Department, Office of Student Support Services: *Guidelines for Concussion Management in the School Setting*. [Last updated January 2014])

Student athlete

Students should be encouraged to communicate any symptoms promptly to district staff and/or parents/guardians, as a concussion is primarily diagnosed by reported and/or observed signs and symptoms. It is the information provided by students about their signs and symptoms that guides the other members of the team in transitioning them back to activities. The amount and type of feedback reported by the student will be dependent on age and other factors. Therefore it is recommended that students:

- Be educated about the prevention of head injuries.
- Be familiar with signs and symptoms that must be reported to the coach, certified athletic trainer, school nurse, parent/guardian, or other staff.
- Be made aware of the risk of concussion and be encouraged to tell their coach, parent/guardian, certified athletic trainer, school nurse or other staff members about injuries and symptoms they are experiencing.
- Be educated about the risk of severe injury, permanent disability, and even death that can occur with re-injury by resuming normal activities before recovering from a concussion.
- Follow instructions from their private medical/health care provider.
- Be encouraged to ask for help and to inform teachers of difficulties they experience in class and when completing assignments.
- Encourage classmates and teammates to report injuries.
- Promote an environment where reporting signs and symptoms of a concussion is considered acceptable and is encouraged.

Parents and guardians

When students are diagnosed with a concussion, it is important that the parent/guardian communicates with both the health care professional and the school. Therefore, it is recommended that parents/guardians:

- Be familiar with the signs and symptoms of concussions. This may be accomplished by reading pamphlets, Web-based resources, and attending meetings and education sessions before their child's involvement in athletic activities.
- Be familiar with the requirement that any students suspected of having a concussion must immediately be removed from athletic activities.
- Be familiar with any concussion policies or protocols implemented by the local or regional board of education.
- Be made aware that concussion symptoms that are not addressed can prolong concussion recovery.
- Provide any forms and written orders from the health care professional to the school nurse and the

athletic trainer or coach in a timely manner.

- Monitor their child's physical and mental health as they transition back to full activity after sustaining a concussion.
- Report concerns to their child's health care professional and the school as necessary.
- Communicate with the school to assist in transitioning their child back to school after sustaining a concussion.
- Communicate with school staff if their child is experiencing significant fatigue or other symptoms during or at the end of the school day.
- Follow the health care professional's orders at home regarding return to activities.

School administrator

School administrators and/or their designees should ensure that the district's policies on concussion management are communicated and implemented. Administrators may choose to designate a school concussion management team to oversee that district policies are enforced and protocols are implemented. Therefore, administrators should:

- Review the district's concussion education plan with all staff.
- Arrange for the mandatory professional development regarding concussion management for staff and/or parents.
- Provide guidance to district staff on districtwide policies and protocols for emergency care and transport of students suspected of sustaining a concussion.
- Ensure that plans are developed and implemented to meet the needs of individual students diagnosed with a concussion and consult with the school medical adviser, school nurse, and (if any) a certified athletic trainer.
- Enforce district concussion management policies and protocols.
- Encourage parents/guardians to communicate with the school nurse and teachers if their child is experiencing significant fatigue or other symptoms during or at the end of the school day.
- Invite parent/guardian participation in determining their child's needs at school.
- Encourage parents/guardians to communicate with the health care professional on the status of their child and their progress with return to school activity.
- Ensure that coaches, athletic directors and athletic trainers inform the school nurse or medical adviser of any student who is suspected of or has been diagnosed with a concussion.

School medical adviser

The school medical adviser, who is a physician, plays a very important role in setting policies and procedures related to identifying students who may have sustained a concussion, along with postconcussion management in school. Therefore, the medical adviser should:

- Collaborate with district administration and the school nurse supervisor in developing concussion management policies and protocols.
- Assist district staff by acting as a liaison to the student's medical provider when necessary.
- Attend 504 and concussion management team meetings when necessary or requested.
- Clear all students returning to athletic activities. This can be done at the discretion of the medical adviser either by reviewing a private medical provider's clearance, or personally assessing the student.
- Work with the concussion management team to monitor the progress of individual students with protracted recovery, multiple concussions, and atypical recovery.

- Encourage school health personnel (such as school nurses and certified athletic trainers) to collaborate and communicate with each other about all students who are involved in athletic activities and are suspected of having or are diagnosed with a concussion.
- Participate in professional development activities as needed to maintain a current knowledge base.

Licensed health care professional

Licensed health care professionals trained in the evaluation and management of concussions provide orders and guidance that determine when students are able to begin transitioning back to school and activities.

Therefore, they should:

- Provide written orders regarding restrictions and monitoring for specific symptoms that the health care professional should be made aware of by family and/or district staff members.
- Provide the district with a written graduated return to activity schedule to follow, or approve use of the district's graduated return to activity schedule, if appropriate.
- Readily communicate with the school nurse, certified athletic trainer, or school medical adviser to clarify orders.
- Provide written clearance for return to full activities (coaches shall not permit such student athlete to participate in any supervised team activities involving physical exertion, including, but not limited to, practices, games or competitions, until such student athlete receives written clearance to participate in such supervised team activities involving physical exertion).

School nurse

The school nurse (registered nurse) is the primary health care professional in the school environment and is responsible for the coordination of care for all students. He or she communicates with the health care professional, medical director, parent/guardian, and district staff, collects written documentation and orders, and assesses students' progress in returning to school activities. Therefore, the school nurse should:

- Assess students who have suffered a significant fall or blow to the head or body for signs and symptoms of a concussion and determine if any signs and symptoms of concussion warrant emergency transport to the nearest hospital emergency room per district policy.
- Refer parents and guardians of students believed to have sustained a concussion to their health care professional for evaluation.
- Provide parents and guardians with oral and/or written instructions (best practice is to provide both) on observing the student for concussive complications that warrant immediate emergency care.
- Use the health care professional's orders when developing an individualized health care plan or an emergency care plan for staff to follow.
- Ensure proper communication (as guided by FERPA and school district policies) to teachers, coaches, athletic trainers, athletic directors and other school staff that a student is suspected of or has sustained a concussion.
- Monitor and assess the student's return to school activities, assessing the student's progress with each step and communicating with the health care professional, school medical adviser, certified athletic trainer, parent/guardian, and appropriate district staff when necessary.
- Collaborate with the concussion management team in creating accommodations if it is determined that a 504 plan is necessary.
- Assist in educating students and staff in concussion management and prevention.

Director of physical education and/or athletic director (AD)

The director of physical education provides leadership and supervision for physical education (PE) class instruction, intramural activities, and interscholastic athletic competition within a school district's total physical education program. In many districts there may be an athletic director solely in charge of the interscholastic athletic program. The director of physical education and/or the athletic director must be fully informed about district policies regarding concussion management. They should educate PE teachers, coaches, parents/guardians, and students about such policies. The director of PE and/or the athletic director often act as the liaison between district staff and coaches. Therefore, the director of PE and/or athletic director should:

- Ensure that informed consent forms are distributed to and collected from the parents and legal guardians of student athletes involved in intramural or interscholastic athletic activities. Such informed consent form shall include, at a minimum, a summary of the concussion education plan and a summary of the local or regional board of education's policies regarding concussions.
- Inform the school nurse, certified athletic trainer, or medical adviser of any student who is suspected of or has been diagnosed with a concussion.
- Ensure that any student identified as potentially having a concussion is not permitted to participate in any athletic activities until written clearance is received from a licensed health care professional trained in the evaluation and management of concussions.
- Ensure that game officials, coaches, PE teachers, or parents/guardians are not permitted to determine whether a student with a suspected head injury can continue to play.
- Educate coaches on the school district's policies on concussions and care of injured students during interscholastic athletics, including when to arrange for emergency medical transport.
- Assist in educating students, parents/guardians and staff in concussion management and prevention.
- Enforce district policies on concussions including training requirements for
- coaches and certified athletic trainers.
- Advocate for a certified athletic trainer to be present during athletic activities.

Certified athletic trainer (ATC)

A certified athletic trainer, under the supervision of a qualified physician, can assist the medical adviser and athletic director (or director of PE) by identifying a student with a potential concussion. The certified athletic trainer can also evaluate the concussed student's progress in return to athletic activities and postconcussion care based on the licensed health care professional's provider orders and/or district protocol. Therefore, in collaboration with the school nurse, certified athletic trainers should:

- Evaluate student athletes who may have suffered a significant fall or blow to the head or body for signs and symptoms of a concussion when present at athletic events.
- Observe for late onset of signs and symptoms of a concussion and refer as appropriate.
- Evaluate the student to determine if any signs and symptoms of concussion warrant emergency transport to the nearest hospital emergency room per district policy.
- Refer parents/guardians of student athletes believed to have sustained a concussion to their health care professional for evaluation.
- Provide parents/guardians with oral and/or written instructions (best practice is to provide both) on observing the student for concussive complications that warrant immediate emergency care.
- Monitor the student's return to school activities, evaluating the student's progress with each step.
- Review the written statement to clear a student for return to activities.
- Assist in educating students, parents/guardians and staff in concussion management and prevention.

- Inform the school nurse or medical adviser of any student who is suspected of or has been diagnosed with a concussion.

Coach

Coaches are typically the only district staff at all interscholastic athletic practices and competitions. It is essential that coaches are well informed regarding possible causes of concussions along understand the signs and symptoms. Coaches should always put the safety of the student first. Therefore, coaches should:

- Remove any student who has taken a significant blow to head or body, or presents signs and symptoms of a head injury immediately from play. Public Act No. 14-66: An Act Concerning Youth Athletics and Concussions requires immediate removal of any student suspected to have sustained a concussion.
- Contact the school nurse or certified athletic trainer for assistance with any student injury.
- Send any student exhibiting signs and symptoms of a more significant concussion to the nearest hospital emergency room via emergency medical services (EMS).
- Inform the parent/guardian of the need for evaluation by their medical/health care provider.
- Provide the parent/guardian with written educational materials on concussions along with the district's concussion management policies.
- Inform the school nurse, certified athletic trainer, athletic director (or PE director) of the student's potential concussion. This is necessary to ensure that the student does not engage in activities at school that may complicate the student's condition prior to having written clearance by a licensed health care professional.
- Ensure that students diagnosed with a concussion do not participate in any athletic activities until written authorization has been received from the licensed health care professional trained in the evaluation and management of concussions.
- Inform the school nurse or medical adviser of any student who is suspected of or has been diagnosed with a concussion.

Teacher/school counselor/school psychologist

Teachers, school counselors, and school psychologists can assist students in their recovery from a concussion by making and coordinating the implementation of accommodations that minimize aggravating symptoms so that the student has sufficient cognitive rest. They should refer to district protocols and licensed health care provider orders in determining academic accommodations. Section 504 plans may need to be considered for some students with severe symptoms requiring an extended timeframe for accommodations. The school professionals should be aware of the processing issues a student with a concussion may experience. A student who has a concussion will sometimes have short-term problems with attention and concentration, speech and language, learning and memory, reasoning, planning, and problem solving. Students transitioning into school after a concussion might need academic accommodations to allow for sufficient cognitive rest. These include, but are not limited to:

- shorter school day;
- rest periods;
- extended time for tests and assignments;
- provision of copies of notes;
- alternative assignments;
- minimizing distractions;
- permitting student to audiotape classes;

- peer note takers;
- providing assignments in writing; and
- refocusing student with verbal and nonverbal cues.

Adapted from [Guidelines for Concussion Management in the School Setting](#).

Appendix C

Concussion Education Plan Implementation Checklist

- Identification of a School Concussion Management Team (see appendix A, "[School Concussion Management Team](#)")
- Identification of roles and responsibilities of members of the School Concussion Management Team and school personnel (see appendix B, "[Suggested Roles and Responsibilities of the School Concussion Management Team and School Personnel](#)")
- Procedures to ensure the provision of concussion education to student athletes prior to participating in any intramural or interscholastic athletic activity (see section 1, "[Concussion Education and other Requirements for Students, Parents, and Coaches](#)")
- Procedures to ensure the provision of concussion education to parents or guardians of student athletes prior to the athlete participating in any intramural or interscholastic athletic activity (see section 1, "[Concussion Education and other Requirements for Students, Parents, and Coaches](#)")
- Procedures for obtaining parental or legal guardian informed consent attesting to the fact that they have received a copy of such consent form and that they authorize the student athlete to participate in the athletic activity (see section 1, "[Concussion Education and other Requirements for Students, Parents, and Coaches](#)")
- Procedures to implement if a student athlete is suspected of sustaining a concussion (see "[The Means of Obtaining Proper Medical Treatment for a Person Suspected of Sustaining a Concussion](#)" in section 2)
- Communication protocols to ensure the notification by qualified school employees to parents or legal guardians when a concussion has occurred or is suspected in their child as soon as possible and within 24 hours (see section 2, "[Concussion Education Plan](#)" and appendix E, "[Applicable State and Federal Laws](#)")
- Communication procedures for the timely reporting of all occurrences of concussions and suspected concussions to the school health services staff (such as the school nurse) and other school personnel (such as administrators, athletic trainers, athletic directors, other medical personnel, school counselors, teachers, coaches) to ensure proper care and recovery (see "[Current Best Practices in the Prevention and Treatment of a Concussion](#)" in section 2 and appendix B, "[Suggested Roles and Responsibilities of the School Concussion Management Team and School Personnel](#)")
- Adoption of return-to-play protocols or procedures (see "[The Proper Procedures for Allowing a Student Athlete Who Has Sustained a Concussion to Return to Athletic Activity](#)" in section 2)
- Procedures for the collection of all occurrences of concussions for reporting to the State Board of Education, including: (1) the nature and extent of the concussion, and (2) the circumstances in which the student sustained the concussion (see appendix D, "[Reporting Requirements by Local and Regional Boards of Education](#)").

Appendix D

Reporting Requirements by Local and Regional Boards of Education

For the school year commencing July 1, 2014, and annually thereafter, the State Board of Education shall require all local and regional school districts to collect and report all occurrences of concussions to the board. Each report shall contain, if known, (1) the nature and extent of the concussion, and (2) the circumstances in which the student sustained the concussion (Public Act No. 14-66: An Act Concerning Youth Athletics and Concussions).

Appendix E

Applicable State and Federal Laws

State Legislation

School districts have a responsibility to be knowledgeable about all relevant state and federal laws and how they affect school policies on all aspects of concussion education, prevention, and management.

Public Act No. 14-66: An Act Concerning Youth Athletics and Concussions
<http://www.cga.ct.gov/2014/act/pa/pdf/2014PA-00066-R00HB-05113-PA.pdf>

Connecticut General Statutes (C.G.S.) 10-212a Administration of Medications in Schools. This statute pertains to the administration of medications in the school setting. It addresses who may prescribe medications and who may administer medications in the school setting.

The Regulations of Connecticut State Agencies Section 10-212a-1 through 10-212a-10 Administration of Medications by School Personnel and Administration of Medication During Before- and After-School Programs and School Readiness Programs. These regulations provide the procedural aspects of medication administration in the school setting. The regulations include definitions within the regulations; the components of a district policy on medication administration; the training of school personnel; self-administration of medications; handling, storage and disposal of medications; supervision of medication administration; administration of medications by coaches and licensed athletic trainers during intramural and interscholastic events; administration of medications by paraprofessionals; and administration of medication in school readiness programs and before- and after-school programs.

Federal Legislation

Certain federal laws may also be relevant to school districts' responsibilities for meeting the needs of students with concussions. The following information regarding these laws is adapted from the Connecticut State Department of Education's *Clinical Procedure Guidelines for Connecticut School Nurses - Part A: Legal Issues – Educational (2013)*.

Three federal laws—Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA), and the Individuals with Disabilities Education Act (IDEA)—may have application in some situations involving concussions. Section 504 covers qualified students with disabilities who attend schools receiving federal financial assistance. Section 504 would be implicated if a student with a concussion were determined to have a disability. A student would have a disability if the student is determined to: (1) have a physical or mental impairment that substantially limits one or more major life activities; or (2) have a record of such an impairment; or (3) is regarded as having such an impairment. Section 504, together with the IDEA, requires that school districts provide a free, appropriate, public education (FAPE) to qualified students who have a physical or mental impairment that substantially limits one or more major life activities.

Major life activities as defined in the Section 504 regulations include functions such as caring for oneself, performing manual tasks, walking, seeing, speaking, breathing, learning, and working. This list is not exhaustive. In the Americans with Disabilities Act Amendments Act (ADAAA), Congress provided additional examples of activities that are major life activities including eating, sleeping, standing, lifting, bending, reading, concentrating, thinking, and communicating. Congress also provided a nonexhaustive list examples

of “major bodily functions” that are major life activities, such as functions of the immune system, normal cell growth, digestive, bowel, bladder, neurological, brain, respiratory, circulatory, endocrine, and reproductive functions.

It is the responsibility of the Section 504 team to determine eligibility criteria and placement as outlined in the regulations. To determine a child’s qualification, an individualized assessment of the child is required. If qualified, the child is entitled to receive a free, appropriate, public education, including related services. These services should occur within the child’s usual school setting with as little disruption as possible to the school and the child’s routines, in a way that ensures that the child with the disability is educated to the maximum extent possible with his or her nondisabled peers.

Glossary

concussion. A type of traumatic brain injury caused by a bump, blow, or jolt to the head that can change the way the brain normally works. Concussions can also occur from a fall or a blow to the body that causes the head and brain to move quickly back and forth.

traumatic brain injury (TBI). An acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects a child's educational performance. Traumatic brain injury applies to open or closed head injuries resulting in impairments in one or more areas, such as cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem-solving; sensory, perceptual, and motor abilities; psychosocial behavior; physical functions; information processing; and speech. Traumatic brain injury does not apply to brain injuries that are congenital or degenerative, or to brain injuries induced by birth trauma ([IDEA 2004](#)).

intramural athletic events. Tryouts, competition, practice, drills, and transportation to and from events that are within the bounds of a school district for the purpose of providing an opportunity for students to participate in physical activities and athletic contests that extend beyond the scope of the physical education program.

interscholastic athletic events. Events between or among schools for the purpose of providing an opportunity for students to participate in competitive contests that are highly organized and extend beyond the scope of intramural programs and includes tryouts, competition, practice, drills, and transportation to and from such events.

licensed health care professional. A physician licensed pursuant to chapter 370, a physician assistant licensed pursuant to chapter 370, an advanced practice registered nurse licensed pursuant to chapter 378, or an athletic trainer licensed pursuant to chapter 375a of the *Connecticut General Statutes*, Title 20: Professional and Occupational Licensing, Certification, Title Protection and Registration. Examining Boards.

qualified school employee. A principal, teacher, licensed athletic trainer, licensed physical or occupational therapist employed by a school district, coach or school paraprofessional.

References

- American Academy of Pediatrics (AAP). n.d. [Sports-Related Concussion: Understanding the Risks, Signs & Symptoms](#).
- The Centers for Disease Control and Prevention (CDC). n.d. [How Can I Recognize a Possible Concussion?](#) (accessed 12/16/2014).
- CDC. n.d. [Injury Prevention & Control: Traumatic Brain Injury](#) (accessed 12/16/2014).
- CDC. n.d. [A “Heads Up” on Managing Return to Play](#) (accessed on 12/16/2014).
- CDC. n.d. [Heads Up: Preventing Concussion](#) (accessed on 12/16/14).
- CDC. 2014. [Heads Up: Concussion](#) (accessed on 12/16/2014).
- CDC. 2012. [Concussion in Sports](#) (accessed on 12/16/2014).
- Christina L. Master, MD; and Matthew F. Grady, MD. [Office-Based Management of Pediatric and Adolescent Concussion](#). *Pediatric Annals* 41:9, September 2012 (accessed on 12/16/2014).
- [Guidelines for Concussion Management in the School Setting](#). The University of the State of New York, The State Education Department Office of Student Support Services, Albany, New York 12234, June 2012.
- Journal of Athletic Training* 2014;49(2):255. S. Brogio et al. National Athletic Trainers’ Association Position Statement: Management of Sport Concussion. www.natajournals.org (accessed on 12/17/2014).
- McCrory, Meeuwisse, Johnston, Dvorak, Aubry, Molloy, Cantu. Consensus statement on concussion in sport – The 3rd International Conference on Concussion in Sport, held in Zurich, November 2008, *Journal of Clinical Neuroscience* 16 (2009) 755–763.
- Pardini D, Stump J, Lovell M, et al. The post-concussion symptom scale (PCSS): A factor analysis. *Br J Sports Med*. 2004;38:661-662 in Christina L. Master, MD; and 13.

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