

BOARD OF EDUCATION

Cherry Hill, New Jersey

POLICY 5141.8

SPORTS RELATED CONCUSSION AND HEAD INJURY

Legislation (P.L. 2010, Chapter 94) (*N.J.S.A.* 18A:40-41.3) enacted on December 7th, 2010 requires each school district, charter, and non-public school that participates in interscholastic athletics to adopt by September 1, 2011, a policy concerning the prevention and treatment of sports-related concussions and other head injuries among student-athletes. The Center for Disease Control estimates that 300,000 concussions are sustained during sports-related activity in the United States. A concussion is a traumatic brain injury (TBI) caused by a direct or indirect blow to the head or body. In order to ensure the safety of student-athletes, it is imperative that athletes, coaches, and parents/guardians are educated about the nature and treatment of sports-related concussions and head injuries. Allowing a student-athlete to return to play before recovering from a concussion increases the chance of a more serious brain injury that can result in severe disability and/or death.

To that end the Cherry Hill Board of Education is supportive of the care and treatment of a student-athlete who is suspected of sustaining a sports-related concussion or head injury.

- The Cherry Board of Education will adopt an Interscholastic Head Injury Training program to be completed by the School/Team Physician, Licensed Athletic Trainer, Coaches, School Nurses, and other appropriate district personnel pursuant to *N.J.S.A.* 18A:40-41.2
- The Cherry Hill Board of Education must develop its written policy concerning the prevention and treatment of sports-related concussions and head injuries in accordance with *N.J.S.A.* 18 A: 40-41.3.
- The Cherry Hill Board of Education will review their sports-related concussion and head injury policy annually, and update as necessary, to ensure that it reflects the most current information available on the prevention, risk, and treatment of sports related concussions and head injuries pursuant to *N.J.S.A.* 18A:40-41.3.

The following components are in the policy:

- *N.J.S.A.*18A:40-41.4- Removal of student-athlete from competition, practice; return.
A student who participates in interscholastic athletics and who sustains or is suspected of sustaining a concussion or other head injury shall be immediately removed from practice or

competition. The student-athlete may not return to play until he/she has obtained medical clearance in compliance with local school district return-to-play policy.

- All Coaches, School Nurses, School/ Team Physicians and Licensed Athletic Trainers must complete an Interscholastic Head Injury Training Program.
- The Athletic Head Injury training program must include, but not be limited to:
 1. The recognition of the symptoms of head and neck injuries, concussions, risk of secondary injury, including the risk of second impact syndrome; and
 2. Description of the appropriate criteria to delay the return to sports competition or practice of a student –athlete who has sustained a concussion or other head injury.
- An Athletic Head Injury Training program such as the National Federation of State High Schools Association online “Concussion in Sports” training program or a comparable program that meets mandated criteria shall be completed by the above named staff or others named by local district/school policy. Additional head injury training programs that meet the mandated criteria may be completed by professionals of different levels of medical knowledge and training. Guidance for these additional training programs will be provided by the NJDOE.
- Distribution of NJ Department of Education Concussion and Head Injury fact sheet (See Appendix C, 3 pages) to every student-athlete who participates in interscholastic sports. Every student that participates in interscholastic sports shall obtain a signed acknowledgement of the receipt of the fact sheet (See appendix A) by the student-athlete’s parent/ guardian and such acknowledgement will be kept in the school’s files for future reference.

Model Concussion Protocol for the Prevention and Treatment of Sports-Related Concussions and Head Injuries

Prevention

1. Pre-season baseline testing.
 2. Review of educational information for student-athletes on prevention of concussions.
 3. Reinforcement of the importance of early identification and treatment of concussions to improve recovery.
- Student-athletes who are exhibiting the signs or symptoms of a sports-related concussion or other head injuries during practice or competition shall be immediately removed from play and may not return to play that day.

Possible Signs of Concussion:

(Could be observed by Coaches, Licensed Athletic Trainer, School/Team Physician, School Nurse)

1. Appears dazed, stunned, or disoriented.
2. Forgets plays, or demonstrates short term memory difficulty.
3. Exhibits difficulties with balance or coordination.
4. Answers questions slowly or inaccurately.
5. Loses consciousness.

Possible Symptoms of Concussion

(Reported by the student athlete to Coaches, Licensed Athletic Trainer, School/ Team Physician, School Nurse, Parent/ Guardian)

1. Headache
 2. Nausea/Vomiting
 3. Balance problems or dizziness.
 4. Double vision or changes in vision.
 5. Sensitivity to light or sound/noise.
 6. Feeling sluggish or foggy.
 7. Difficulty with concentration and short term memory.
 8. Sleep disturbance.
 9. Irritability
- Student-Athletes must be evaluated by a physician or licensed health care provider trained in the evaluation and management of concussion to determine the presence or absence of a sports-related concussion or head injuries.
 - To return to practice and competition the student-athlete must follow the protocol:
 1. Immediate removal from competition or practice. 911 should be called if there is a deterioration of symptoms, loss of consciousness, or direct neck pain associated with the injury.
 2. When available the student-athlete should be evaluated by the school's licensed healthcare provider who is trained in the evaluation and management of concussions.
 3. School personnel (Athletic Director/Building Administrator, Licensed Athletic Trainer, School Nurse, Coach, etc.) should make contact with the student-athlete's parent/guardian and inform him/her of the suspected sports-related concussion or head injury.
 4. School personnel (Athletic Director/ Building Administrator, Licensed Athletic Trainer, School Nurse, Coach, etc.) shall provide the student-athlete with district board of education approved suggestions for management/ medical checklist to provide their parent/guardian and physician or other licensed healthcare professional trained in the evaluation and management of sports related concussions and other head injuries (See attachment sections at end of model policy for examples CDC, NCAA, etc.)
 5. The student-athlete must receive written clearance from a physician, trained in the evaluation and management of concussions that states the student-athlete is asymptomatic at rest and may begin the local districts' graduated return-to-play protocol. Medical clearance that is inconsistent with district, charter, and non-public school policy may not be accepted and such matters will be referred to the school/team physician.

Graduated Return to Competition and Practice Protocol

- Complete physical, cognitive, emotional, and social rest is advised while the student-athlete is experiencing symptoms and signs of a sports-related concussion or other head injury. (Minimize mental exertion, limiting overstimulation, multi-tasking etc.)
- After written medical clearance is given by a physician trained in the evaluation and management of concussions stating that the student-athlete is asymptomatic at rest, the student-athlete may begin a graduated individualized return-to-play protocol supervised by a licensed athletic trainer, school/team physician or in cases where the aforementioned are not available a physician or licensed health care provider trained in the evaluation and management of sports-related concussions. The following steps should be followed:
 1. Completion of a full day of normal cognitive activities (school day, studying for tests, watching practice, interacting with peers) without re-emergence of any signs or symptoms. If no return of symptoms, next day advance to:
 2. Light aerobic exercise, which includes walking, swimming, or stationary cycling, keeping the intensity to less than 70% maximum percentage heart rate: no resistance training. The objective of this step is increased heart rate. If no return of symptoms, next day advance to:
 3. Sport-specific exercise including skating, and/or running; no head impact activities. The objective of this step is to add movement and continue to increase heart rate. If no return of symptoms, next day advance to:
 4. Non-contact training drills (e.g., passing drills). The student-athlete may initiate progressive resistance training. If no return of symptoms, next day advance to:
 5. Following medical clearance (consultation between school health care personnel, i.e., Licensed Athletic Trainer, School/Team Physician, School Nurse and student-athlete's physician), participation in normal training activities. The objective of this step is to restore confidence and to assess functional skills by the coaching staff. If no return of symptoms, next day advance to:
 6. Return to play involving normal exertion or game activity.
- In the absence of daily testing by knowledgeable school district staff (i.e. Licensed Athletic Trainer, School/Team Physician) to clear a student-athlete to begin the graduated return-to-play protocol a student – athlete should observe a 7 day rest/recovery period before commencing the protocol. Younger students (grades 6-8) should observe the 7 day rest/recovery period (after they are symptom free at rest) prior to initiating the graduated-return-to play protocol. A physician trained in the evaluation and management of concussion as well as the parents/guardians of the student-athlete shall monitor the student-athlete in the absence of knowledgeable school district staff (i.e., Athletic Trainer, School/Team Physician). School Nurses may serve as an advocate for student-athletes in communicating signs and symptoms to physicians and parents/guardians.
- Utilization of available tools such as symptom checklists, baseline and balance testing are suggested.

- If the student athlete exhibits a re-emergence of any concussion signs or symptoms once they return to physical activity, he/she will be removed from further exertional activities and returned to his/her school/team physician or primary care physician.
- If concussion symptoms reoccur during the graduated return-to-play protocol, the student-athlete will return to the previous level of activity that caused no symptoms.

Temporary Accommodations for Student-Athletes with Sports-Related Head Injuries

- Rest is the best “medicine” for healing concussions or other head injuries. The concussed brain is affected in many functional aspects as a result of the injury. Memory, attention span, concentration and speed of processing significantly impacts learning. Further, exposing the concussed student-athlete to the stimulating school environment may delay the resolution of symptoms needed for recovery.
- Accordingly, consideration of the cognitive effects in returning to the classroom is also an important part of the treatment of sports-related concussions and head injuries.
- Mental exertion increases the symptoms from concussions and affects recovery. To recover, cognitive rest is just as important as physical rest. Reading, studying, computer usage, testing, texting – even watching movies if a student is sensitive to light/sound – can slow a student's recovery. In accordance with the Centers for Disease Control's toolkit on managing concussions boards of education may look to address the student's cognitive needs in the following ways.
- Students who return to school after a concussion may need to:
 1. Take rest breaks as needed.
 2. Spend fewer hours at school.
 3. Be given more time to take tests or complete assignments. (All courses should be considered)
 4. Receive help with schoolwork.
 5. Reduce time spent on the computer, reading, and writing.
 6. Be granted early dismissal to avoid crowded hallways.

Statutory and Regulatory Provisions: *N.J.S.A. 40-41.3* Information regarding the Interscholastic Head Injury Safety training program and policy for the prevention and treatment of sports-related concussions and head injuries which shall be completed by the school/team physician, coaches, athletic trainer, school nurse, and any other school employee the local district, charter, and non-public school deems necessary.

The Cherry Hill Board of Education or its designee will monitor the above named school district employees in the completion of an Interscholastic Head Injury Training program such as the National Federation of State High Schools Association's online, “Concussion in Sports” or a comparable program which meets the mandated criteria and includes but is not limited to:

1. The recognition of the symptoms of head and neck injuries, concussions, and injuries related to second-impact syndrome.
2. Includes the appropriate criteria to delay the return to sports practice or competition of a student-athlete who has sustained a concussion or other head injury.

*Additional head injury training programs that meet the mandated criteria may be completed by professionals of different levels of medical knowledge and training. Guidance for these additional training programs will be provided to each school district, charter, and nonpublic school by NJDOE.

The Cherry Hill Board of Education or its designee shall distribute the educational fact sheet (See appendix C) annually to the parents or guardians of student-athletes and shall obtain a signed acknowledgement of the receipt of the fact sheet (See appendix A) by the student-athlete and his parent or guardian.

The Cherry Hill Board of Education shall implement the policy by the beginning of the 2011-2012 school year.

Each school whose students participate in an interscholastic sports program and are suspected of sustaining a concussion or other head injury in practice or competition shall be immediately removed from the sports competition or practice. Student-athletes who are removed from competition or practice shall not participate in further sports activity until they are evaluated by a physician or other licensed healthcare provider trained in the evaluation and management of concussions, and receive written clearance from a physician trained in the evaluation and management of concussions to return to completion or practice.

<u>Legal References:</u>	<u>N.J.S.A. 18A:16-6, -6.1</u>	<i>Indemnity of officers and employees against civil actions</i>
	<u>N.J.S.A. 18A:35-4.6 et seq.</u>	<i>Parents Right to Conscience Act of 1979</i>
	<u>N.J.S.A. 18A:40-1</u>	<i>Employment of medical inspectors, optometrists and nurses; salaries; terms; rules</i>
	<u>N.J.S.A. 18A:40-3</u>	<i>Lectures to teachers</i>
	<u>N.J.S.A. 18A:40-5</u>	<i>Method of examination; notice to parent or guardian</i>
	<u>N.J.S.A. 18A:40-6</u>	<i>In general</i>
	<u>N.J.S.A. 18A:40-7, -8, -10, -11</u>	<i>Exclusion of students who are ill</i>
	<u>N.J.S.A. 18A:40-23 et seq.</u>	<i>Nursing Services for Nonpublic School Students</i>
	<u>N.J.S.A. 18A:40-41.4</u>	<i>Removal of student athlete from competition, practice; return</i>
	<u>N.J.A.C. 6A:16-1.1 et seq.</u>	<i>Programs to Support Student Development</i>
	<i>See particularly:</i>	
	<u>N.J.A.C. 6A:16-1.1, -1.3, -1.4, -2.1, -2.3, -2.4</u>	
	<u>N.J.A.C. 6A:26-12.1 et seq.</u>	<i>Operation and Maintenance of School Facilities</i>
	<i>See particularly:</i>	
	<u>N.J.A.C. 6A:26-12.3</u>	
	<u>Plainfield Board of Education v. Cooperman, 105 NJ 587 (1987)</u>	

Approved: July 26, 2011

Return to Play Guidelines

At any time during a practice or game that a student athlete experiences any sign(s)/symptom(s) of a concussion he/she will not be allowed to return to play/practice that day.

First time concussed athletes with no loss of consciousness and signs/symptoms lasting less than 7 days may return to play when he/she meets the following criteria:

1. Asymptomatic (with no use of medications to mask headache or other symptoms).
2. After written medical clearance is given by a physician trained in the evaluation and management of concussions stating that the student-athlete is asymptomatic at rest, the student-athlete may begin a graduated individualized return-to-play protocol supervised by a licensed athletic trainer, school/team physician or in cases where the aforementioned are not available a physician or licensed health care provider trained in the evaluation and management of sports-related concussions.
3. Completion of the Zurich Activity Progression (see below). This may begin once the athlete is asymptomatic for a minimum of 24 hours and medically cleared to do so.
4. ImPACT scores return to within normal limits of baseline (if applicable).

Any loss of consciousness, signs/symptoms lasting 7 days or longer or repeat concussions will require a minimum 7 day asymptomatic period and medical clearance before beginning the Zurich Activity Progression and will be managed on an individualized basis as approved by the school physician. The asymptomatic period for any concussion may be extended at the discretion of the Cherry Hill School District physicians and/or athletic trainer. Physician clearance notes inconsistent with the concussion policy may not be accepted and such matters will be referred to our school physician.

Legislation (P.L. 201, Chapter 94) (N.J.S.A 18A:40-41.4) enacted 12/7/2010

Legislation (P.L. 201, Chapter 94) (N.J.S.A 18A:40-41.3)

Legislation (P.L. 201, Chapter 94) (N.J.S.A 18A:40-41.2)

Zurich Return to Activity Progression

We follow a stepwise activity progression based on recommendations in the Zurich Consensus Statement from the 3rd International Congress on Concussion in Sport¹ as follows: After a symptom free day of normal cognitive activities:

Step 1: Light aerobic exercise (i.e. stationary bike, elliptical machine)

Step 2: Moderate aerobic exercises (begin running program)

Step 3: Functional exercises (increase running intensity; begin agilities, non-contact sport-specific drills)

Step 4: Non-contact practice activities

Step 5: Full contact practice activities

Step 6: Full game play

Each step is separated by 24 hours if any symptoms occur, the athlete will drop back to the previous level and try to progress again after 24 hours of rest has passed.

ImPACT Testing

In the sports of football, field hockey, soccer, wrestling and lacrosse, at the high school level (grades 9-12) we require pre-season baseline and post-concussion neurocognitive testing using the ImPACT® (Immediate Post Concussion Assessment and Cognitive Testing) software program to assist in the management of head injuries. The 40-minute program is set up in a “video-game” format. It tracks neurocognitive information such as memory, reaction time, brain processing speed and concentration. We conduct a post-concussive test when the athlete is asymptomatic and continue to test the athlete until their scores return to normal. Please note that this program is used only as a tool in making return to play decisions. Additional information about ImPACT® can be found at www.impacttest.com.

Athletes who do not participate in the sports requiring baseline testing may take the baseline test on a voluntary basis.

In the absence of daily testing by knowledgeable school district staff (i.e. Licensed Athletic Trainer, School/Team Physician) to clear a student-athlete to begin the graduated return-to-play protocol a student –athlete should observe a 7 day rest/recovery period before commencing the protocol. Younger students (grades 6-8) should observe the 7 day rest/recovery period (after they are symptom free at rest) prior to initiating the graduated-return-to play protocol. A physician trained in the evaluation and management of concussion as well as the parents/guardians of the student-athlete shall monitor the student-athlete in the absence of knowledgeable school district staff (i.e., Athletic Trainer, School/Team Physician). School Nurses may serve as an advocate for student-athletes in communicating signs and symptoms to physicians and parents/guardians

Appendix A

Instructions:

To be completed by the parent/guardian and student athlete, and return this signed page to Athletic Department

I give my permission for the sports medicine team (including physicians and certified athletic trainers) in the Cherry Hill Public School District to assess, treat and rehabilitate injuries that may occur to my child as a result of participating in athletics.

I have read and reviewed the school districts Concussion Policy and Guidelines for Return to Competition as well as the Concussion Injury Information fact sheets, Appendix C, provided by Cherry Hill Public School District. I understand the signs and symptoms of concussions (mild traumatic brain injury). And when my child demonstrates any of these symptoms, the coach or licensed athletic trainer will remove the child from activity. I accept the risks associated with my student participating in athletics and I understand the risk associated with my student continuing to participate after sustaining a concussion. I understand it is my or my child's responsibility to inform the School medical staff if he/she is experiencing any signs or symptoms of a concussion. I understand that only a physician, trained in concussion management, can clear my student to participate after sustaining a concussion and that School District physician may choose not to accept the recommendation of the student's personal physician and can request additional testing or evaluation.

Today's Date: _____ Team/Sport _____

Student's Name: (please print)

Signature of Student Athlete

Name of Parent/Guardian: (please print)

Signature of Parent/Guardian:

Appendix B

Resources on Interscholastic Sports Related Concussions and Head Injuries

Internet Resources

Centers for Disease Control and Prevention – Concussion Toolkit

http://www.cdc.gov/concussion/HeadsUp/physicians_tool_kit.html

<http://www.cdc.gov/concussion/headsup/pdf/ACE-a.pdf>

http://www.cdc.gov/concussion/headsup/pdf/ACE_care_plan_school_version_a.pdf

http://www.cdc.gov/concussion/headsup/pdf/Concussion_in_Sports_palm_card-a.pdf

National Federation of State High Schools Association- Online “Concussion in Sports” training program.

www.nfhs.org

Brain Injury Association of New Jersey

www.BIANJ.org

www.sportsconcussion.com

Athletic Trainers Society of New Jersey

www.atsnj.org

National Collegiate Athletic Association

www.NCAA.org/health-safety

New Jersey Interscholastic Athletic Association

www.njsiaa.org

Articles

“Consensus Statement on Concussion in Sport: 3rd International Conference on Concussion in Sport held in Zurich, November 2008”. Clinical Journal of Sports Medicine, Volume 19, May 2009, pp.185-200

Clinical Report: Sport-related Concussion in Children and Adolescents” Halstead ME, Walter, KD and the Council on Sports Medicine and Fitness Pediatrics Volume 126, September 2010, pp.597-615.

Appendix C

Concussion Injury Information

Head Injuries and Concussions

Any head, face or jaw injury can result in a concussion and has the potential to be dangerous. A concussion is a brain injury which results in a temporary disruption of normal brain function. A concussion often results from a blow or jolt to the head, or from the head striking an object such as the ground or another athlete. The brain is suspended in fluid within the skull and can get “shaken” with a sudden force to the head (similar to shaking yolk in a raw eggshell), causing injury. Although less common, bleeding in the brain can occur with some head injuries. Loss of consciousness, mental status deterioration and worsening symptoms raise the concern for a bleeding injury. An athlete does not need to lose consciousness (black out) to suffer a concussion. In fact less than 10% of concussed athletes lose consciousness.

What are the signs and symptoms of a concussion?

- Appears dazed
- Is confused about what to do
- Forgets plays
- Is unsure of game, score or opponent
- Moves clumsily
- Answers questions slowly
- Loses consciousness (rare)
- Shows behavior or personality changes
- Can’t recall events prior to the hit
- Can’t recall events after the hit
- Headache
- Feeling foggy or groggy
- Confusion
- Feeling sluggish or “slowed down”
- Fatigue
- Balance problems or dizziness
- Sleeplessness or excess sleep

- Ringing in the ears
- Light or noise sensitivity
- Concentration or memory problems
- Nausea
- Double or fuzzy vision

Observe the student-athlete: Check your son or daughter frequently for any signs or symptoms after any direct or indirect head trauma. Consult a physician immediately if there is any question of a concussion.

At any time during a practice or game that a student athlete experiences any sign(s) or symptom(s) of a concussion he/she will not be allowed to return to play/practice that day.

Don’t return to sports after a concussion until your symptoms have completely resolved and you have been cleared by medical professional trained in concussion management.

Concussion Q & A

What are the most common signs and symptoms of a concussion?

According to one study, the top 3 signs/symptoms among 396 concussed athletes were headache (40%), dizziness (15%) and confusion (9%). Loss of consciousness and amnesia occurred in only 4% and 6% of the cases, respectively. This is supported by another study which found that headaches were the most commonly reported symptom following concussion, occurring in 70% to 86% of athletes.

Can my son or daughter take something for the headache?

Concussed athletes should avoid medications containing aspirin or nonsteroidal anti-inflammatories (ie: Advil, Motrin), since these medicines thin the blood and may potentially increase the risk of intracranial bleeding. It is generally OK to take acetaminophen (Tylenol), but **check with your physician** before giving any medication.

Do I need to wake my son or daughter every few hours during the night?

There is still some considerable debate about the necessity of nighttime wake-ups. Wake-ups disrupt the athlete's normal sleep pattern, which can lead to increased symptoms the next day due to the combination of sleep deprivation and the concussion itself. However, you should wake your son or daughter to check for a decreased level of consciousness and persistent or worsening symptoms if: the athlete experienced any loss of consciousness, had a period of amnesia (memory loss or difficulty), he or she still has symptoms at bedtime, or advised to do by your physician or athletic trainer.

When can my son or daughter return to play?

Returns to play decisions are based on concussion severity and the athlete's history of prior head injuries. For most minor concussions, return to play may occur once the athlete meets the following criteria: he/she has completed a symptom-free period (and not taking any medications to mask headache and other symptoms), has completed the stepwise activity progression, passed their ImPACT test (if applicable) and has been cleared by an appropriate medical professional. Adolescents are generally managed more conservatively than college-aged and professional athletes since they appear to be at a higher risk for Second Impact Syndrome. More severe head injuries and those who have had more than one concussion may need a longer recovery period. Concussed athletes should not return to activity until they have been cleared to do so by the physician or athletic trainer.

Does age affect how fast an athlete recovers from a concussion?

Yes. One study that compared recovery rates between NFL football players and high school football players found that high school players took longer to recover from a concussion than the NFL players. A brain that is still developing may be more sensitive to trauma, which likely affects recovery time.

Second Impact Syndrome What is it?

Second Impact Syndrome is a dangerous condition that can occur if an athlete returns to sports before full recovery. If you receive a second blow to the head (even a relatively minor one) before the symptoms of the initial concussion have cleared, the consequences can be deadly. A second blow to the head after a concussion can cause the brain to lose its ability to regulate blood flow properly. Engorgement of the blood vessels occurs which places excessive pressure on the brain. This pressure can result in rapid respiratory failure, coma and even death.

What Should a Student-Athlete do if they think they have a concussion?

Don't hide it. Tell your Athletic Trainer, Coach, School Nurse, or Parent/Guardian.

Report it. Don't return to competition or practice with symptoms of a concussion or head injury. The sooner you report it, the sooner you may return-to-play.

Take time to recover. If you have a concussion your brain needs time to heal. While your brain is healing you are much more likely to sustain a second concussion. Repeat concussions can cause permanent brain injury.

What can happen if a student-athlete continues to play with a concussion or returns to play too soon?

Continuing to play with the signs and symptoms of a concussion leaves the student-athlete vulnerable to second impact syndrome. Second impact syndrome is when a student-athlete sustains a second concussion while still having symptoms from a previous concussion or head injury. Second impact syndrome can lead to severe impairment and even death in extreme cases.

Should there be any temporary academic accommodations made for Student-Athletes who have suffered a concussion?

To recover cognitive rest is just as important as physical rest. Reading, texting, testing-even watching movies can slow down a student-athletes recovery. Stay home from school with minimal mental and social stimulation until all symptoms have resolved. Students may need to take rest breaks, spend fewer hours at school, be given extra time to complete assignments, as well as being offered other instructional strategies and classroom accommodations.

www.cdc.gov/concussion/sports/index.html

www.nfhs.com

www.ncaa.org/health-safety

www.bianj.org

www.atsnj.org

References:

1. Gessel et al, Concussions Among United States High School and Collegiate Athletes, *Journal of Athletic Training*, Dec 2007
2. Guskiewicz et al. National Athletic Trainers' Association Position Statement: Management of Sport-Related Concussion. *Journal of Athletic Training*, 2004; 39(3) 280-297.
3. National Federation of State High School Associations: A Parent's Guide to Concussion in Sports.<http://www.nfhs.org/>
4. Pellman et al. Concussion in Professional Football: Recovery on NFL and High School Athletes Assessed by Computerized Neuropsychological Testing. *Neurology*, Vol. 58, No. 2 Feb. 2006.
5. Sabini, R. and Reddy, C. Concussion Management and Treatment Considerations in the Adolescent Population, *The Physician and Sportsmedicine*. April 2010, No. 1, Volume 38