

ATHLETIC CONCUSSION REGULATIONS

Head Injury and Concussion Policy:

ANY STUDENT WHO SUFFERS A DIRECT OR INDIRECT TRAUMA TO THE HEAD SHALL BE IMMEDIATELY REMOVED FROM THE ACTIVITY AND SHALL NOT RETURN TO THE ACTIVITY UNTIL CLEARED BY AN APPROPRIATE HEALTH CARE PROFESSIONAL. THIS IS ESPECIALLY IMPORTANT FOR A STUDENT WHO EXHIBITS SIGNS, SYMPTOMS, OR BEHAVIORS CONSISTENT WITH A CONCUSSION (SUCH AS LOSS OF CONSCIOUSNESS, HEADACHE, CONFUSION, OR BALANCE PROBLEMS). IF AN ATHLETE SUFFERS A HEAD INJURY DURING A PRACTICE OR GAME, HE/SHE SHOULD BE REMOVED FROM THE PRACTICE OR GAME AND KEPT OUT.

What is a concussion?

A concussion is defined as a trauma induced transient alteration in brain function without structural damage, but with other potentially serious long-term ramifications. In the event of a concussion, the brain sustains damage at a microscopic level in which cells and cell membranes are torn and stretched. The damage to these cells also disrupts the brain at a chemical level, as well as causing restricted blood flow to the damaged areas of the brain, thereby disrupting brain function. A concussion, therefore, is a disruption in how the brain works; it is not a structural injury. Concussions are difficult to diagnose because the damage cannot be seen. A MRI or CT Scan cannot diagnose a concussion, but they can help rule out a more serious brain injury to a student. Because concussions are difficult to detect, students must obtain medical clearance before returning to activities following a concussion.

Mechanics of Injury:

A concussion is caused by a bump, blow, or jolt to the head or body. Any force that causes the brain to bounce around or twist within the skull can cause a concussion. A bump, blow, or jolt to the head or body can be caused by either direct or indirect trauma. The two direct mechanisms of injury are coup-type and contrecoup-type. Coup-type injury is when the head is stationary and struck by a moving object such as another player's helmet, a ball, or sport implement, causing brain injury at the location of impact. Contrecoup-type injury occurs when the head is moving and makes contact with an immovable or slowly moving object. As a result, deceleration occurs causing brain injury away from the site of impact. Indirect forces are transmitted through the spine and jaw or blows to the thorax or the head while the neck muscles are relaxed. Understanding the way in which an injury whip occurred is vital in understanding and having a watchful eye for students who may exhibit symptoms of a concussion is extremely important so these students can receive the appropriate care.

Signs and Symptoms:

Signs

(what you see):

- Confusion
- Forgets plays
- Fatigue
- Unsure about game, score, opponent, walking in wrong direction
- Altered coordination
- Balance problems
- Personality or emotional change
- Slow response to questions or instructions
- Forgets events prior to injury (retrograde amnesia)
- Forgets events after injury (anterograde amnesia)
- Loss of Consciousness (any duration)
- Vacant stare/glassy eyes
- Slurred or incoherent speech

Symptoms

(Reported by Athlete):

- Headache
- Nausea or vomiting
- Double vision/blurry vision
- Sensitivity to light (photophobia)
- Sensitivity to noise (tinnitus)
- Feels sluggish
- Feels foggy
- Problems concentrating
- Problems remembering
- Trouble with sleeping/excess sleep
- Dizziness
- Sadness
- Seeing stars
- Nervousness
- Irritability
- Inappropriate emotions

If any of the above signs or symptoms are observed after a suspected blow to the head, jaw, spine or body, they may be indicative of a concussion and the student athlete must be removed from play immediately and not allowed to return until cleared by an appropriate health professional and the school nurse.

Information for Classroom Teacher:

What does a Concussion look like in the classroom?

While a student will often look healthy following a concussion, it is not uncommon for teachers to underestimate the difficulties that a student is experiencing and may down play the need for cognitive rest. Education of teachers, counselors, and school administrators regarding the cognitive effects that a concussion may have on a student is imperative. After reintegration into school, adequate time should be allowed for makeup work, and the overall volume of work should be reduced when appropriate. Cognitive rest is very important (Clinical Report – Sport Related Concussion in Children and Adolescents).

Following a concussion, students often have difficulty attending school, focusing on schoolwork, taking tests, trying to keep up with assignments – especially in math, science, and world language classes. Reading, even for pleasure, will often increase the symptoms. To allow for a continued recovery, “cognitive rest” is recommended. This may range from a temporary leave of absence to the shortening of the school day, reduction of classroom expectations, and allowing more time for students to complete assignments and taking tests. Taking standardized tests while recovering for a concussion should be discouraged as decreased test scores often occur. Communication with school nurses, administrators, and teachers must occur so there is a common understanding of the issue (Clinical Report – Sport Related Concussion in Children and Adolescents).

The severity of a concussion will dictate the level of accommodations needed upon a student’s return to the classroom. Activities to avoid can include the following: lugging books, attending non-essential classes, taking tests, completing homework, or quizzes. Band, chorus, and physical education should be restricted because of the heightened noise levels and expectation of physical exertion. The gradual return to a healthy status will lead to the reduction in the number of accommodations (New “Return to Class” Protocols for Kids with Concussion).

Management and Referral Guidelines:

1. When an athlete loses consciousness for any reason, the coach will start the EAP (Emergency Action Plan) by activating EMS; check ABC’s (airway, breathing, circulation); stabilize the cervical spine; and transport the injured athlete to the appropriate hospital via ambulance. The coach should immediately call EMS, check ABC’s, and not move the athlete until help arrives.

2. Any athlete who is removed from the competition or event and begins to develop signs and symptoms of a worsening brain injury will be transported to the hospital immediately in accordance with the EAP. **Worsening signs and symptoms requiring immediate physician referral include:**

- A. Amnesia lasting longer than 15 minutes.
- B. Deterioration in neurological function.
- C. Decreasing level of consciousness
- D. Decrease or irregularity of respiration
- E. Decrease or irregularity in pulse
- F. Increase in blood pressure
- G. Unequal, dilated, or unreactive pupils
- H. Cranial nerve deficits
- I. Any signs or symptoms of associated injuries, spine or skull fracture, or bleeding
- J. Mental-status changes: lethargy, difficulty maintaining arousal, confusion, agitation
- K. Seizure activity
- L. Vomiting/worsening headache
- M. Motor deficits subsequent to initial on-field assessment
- N. Sensory deficits subsequent to initial on-field assessment
- O. Balance deficits subsequent to initial on-field assessment
- P. Cranial nerve deficits subsequent to initial on-field assessment
- Q. Post-Concussion symptoms worsen
- R. Athlete is still symptomatic at the end of the game or practice

3. Any athlete who is symptomatic but stable is allowed to go home with his/her parent(s)/guardian(s) following the head injury.

- A. If the head injury occurs at practice, parent(s)/guardian(s) will immediately be notified and must come and pick up the student athlete and talk to the coach.
- B. If the injury occurs at a game or event the student may go home with parent(s)/guardian(s) after talking to the coach.
- C. Parent(s)/guardian(s) will receive important information regarding signs and symptoms of deteriorating brain injury/function prompting immediate referral to a local emergency room as well as return to play requirements. Parent(s)/guardian(s), as well as student athletes, must read and sign the Concussion Information form and bring it back to the athletic director before starting the return to play protocol.

Post-Head Injury Sports Re-Entry Plan

Once the athlete has been medically cleared by his/her physician and the school nurse, the following re-entry plan will be used.

Test 1/Day 1 (to increase heart rate): Low levels of physical activity. This includes walking, light jogging, light stationary bike and light weight lifting (low weight, moderate reps).

Test 2/Day 2 (to increase heart rate with movement): Moderate levels of physical activity with body/head movement. This includes moderate jogging, brief running, moderate intensity on a stationary bike, moderate intensity weight lifting (reduced time and/or weight from typical work out).

Test 3/Day 3: Heavy non-contact physical activity. This includes sprinting/running, non-contact sport specific drills.

Test 4/Day 4: Sports specific practice.

Test 5/Day 5: Full contact in a controlled drill or practice.

School Nurse Responsibilities:

1. Participate and complete the CDC training course on concussions. A certificate of completion will be recorded by the nurse leader yearly.
2. Complete symptom assessment when student athlete enters Health Office (HO) with questionable concussion during school hours. Repeat in 15 minutes.
3. Observe students with a potential concussion for a minimum of 30 minutes.
4. If symptoms are present, notify parent/guardian(s) and instruct parent/guardian(s) that student must be evaluated by an MD.
 - (a) If symptoms are not present, the student may return to class.
 - (b) Parents will still be notified of the head injury even if there are no symptoms present.
5. If symptoms appear after a negative assessment, MD referral is necessary.
6. Allow students who are in recovery to rest in HO when needed.
7. Develop plan for students regarding pain management.
8. School nurse will notify teachers and guidance counselors of any students or student athletes who have academic restrictions or modifications related to their concussion.
9. Educate parents and teachers about the effects of concussion and returning to school and activity.
10. If injury occurs during the school day, inform administrator and complete accident/incident form.
11. Enter physical exam dates and concussion dates into the student information system.

School Responsibilities:

1. Review School Committee and Superintendent Annual Goals and, if necessary, revise, the concussion policy every 2 years.
2. Once the school is informed of the student's concussion, the school nurse in conjunction with the guidance counselor becomes the "point person" for the student and parents.
3. Point person to work with the student on organizing work assignments, making up work and giving extra time for assignments and tests/quizzes.
4. Initiate and monitor use of Academic Expectations during Post-Concussion Recovery.
5. Educate staff on the signs and symptoms of concussions and the educational impact concussions may have on students.
6. Include concussion information in student handbooks.
7. Develop a plan to communicate and provide language-appropriate educational materials to parents with limited English proficiency.

Athletic Director Responsibilities:

1. Provide parents, athletes, coaches, and volunteers with educational training and concussion materials yearly.
2. Ensure that all educational training programs are completed and recorded.
3. Ensure that all students meet the physical exam requirements consistent with 105 CMR 200.000 prior to participation in any extracurricular athletic activity.
4. Ensure that all students participating in extracurricular athletic activity have completed and submitted their pre-participation forms, which include health history form, concussion history form, and MIAA form.
5. Ensure that athletes are prohibited from engaging in any unreasonably dangerous athletic technique that endangers the health or safety of an athlete, including using a helmet or any other sports equipment as a weapon.
6. Ensure that all head injury forms are completed by parent/guardian(s) or coaches and reviewed by the coach and school nurse..
7. Inform parent/guardian(s) that, if all necessary forms are not completed, their child will not participate in athletic extracurricular activities.

Parent/Guardian Responsibilities:

1. Complete and return concussion history form to the athletic department.
2. Inform school if student sustains a concussion outside of school hours. Complete new concussion history form following new injury.
3. If student suffers a concussion outside of school, complete head injury form and return it to the school nurse.
4. Complete a training provided by the school on concussions and return certificate of completion to the athletic department.
5. Watch for changes in your child that may indicate that your child does have a concussion or that your child's concussion may be worsening. Report to a physician:

- A. Loss of consciousness
- B. Headache
- C. Dizziness
- D. Lethargy
- E. Difficulty concentrating
- F. Balance problems
- G. Answering questions slowly
- H. Difficulty recalling events
- I. Repeating questions
- J. Irritability
- K. Sadness
- L. Emotionality
- M. Nervousness
- N. Difficulty with sleeping
- 6. Encourage your child to follow concussion protocol.
- 7. Enforce restrictions on rest, electronics and screen time.
- 8. Reinforce recovery plan.
- 9. Communicate with school nurse and guidance counselor about your child's progress and academic needs.
- 10. Observe and monitor your child for any physical or emotional changes.
- 11. Utilize the Academic Expectations during Post-Concussion Recovery.
- 12. Recognize that your child will be excluded from participation in any extracurricular athletic event if all forms are not completed and on file with the athletic department.

Student and Student Athlete Responsibilities:

- 1. Return required concussion history form prior to participation in athletics.
- 2. Participate in all concussion training and education and return certificate of completion to the athletic department prior to participation in athletics.
- 3. Report all symptoms to school nurse.
- 4. Follow recovery plan.
- 5. Meet with school nurse on regular basis to discuss progress and recovery.
- 6. **REST.**
- 7. **NO ATHLETICS.**
- 8. **BE HONEST!**
- 9. Keep strict limits on screen time and electronics.
- 10. Don't carry books or backpacks that are too heavy.
- 11. Tell your teachers if you are having difficulty with your classwork.
- 12. See the school nurse for pain management.
- 13. Return to sports only when cleared by physician and the school nurse.
- 14. Follow Post Head Injury Sports Re-Entry Plan.
- 15. Report any symptoms to the school nurse and parent(s)/guardian(s) if any occur after return to play.
- 16. Return medical clearance form to nurse and receive clearance from the nurse prior to return to play.
- 17. Students who do not complete and return all required trainings, testing and forms will not be allowed to participate in sports.

Coach/Advisor Responsibilities:

1. Participate in Concussion Education Course offered by the National Federation of State High School Associations (NFHS) on a yearly basis. Complete certificate of completion and return to the athletic department. All coaches must provide the athletic director with confirmation that one of the following courses has been taken and passed. Coaches annual employment contract will stipulate this requirement. The websites for the two courses can be found at:

<http://www.nfhslearn.com/electiveDetail.aspx?courseID=15000>

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

2. Ensure all student athletes have returned concussion history and health history form prior to participation in athletics.
3. Complete a head injury form if their player suffers a head injury in practice or game. This form must be shared with the athletic director and school nurse.
4. School nurse and athletic director must be notified immediately after a game/practice, if a head injury has occurred even if there are no symptoms present.
5. Ensure all students have completed a concussion educational training and returned their certificate of completion prior to participation in athletics.
6. Remove from play any student athlete who has a head injury even if he/she has no symptoms.
7. Do not allow student athletes to return to play until cleared by a physician and school nurse.
8. Follow Post Head Injury Sports Re-Entry Plan.
9. Refer any student athlete with returned signs and symptoms back to school nurse.
10. Any coach or volunteer coach for extracurricular activities shall not encourage or permit a student participating in the activity to engage in any unreasonably dangerous athletic technique that unnecessarily endangers the health of a student athlete, helmet or any other sports equipment as a weapon.

Post Concussion Syndrome:

Post Concussion Syndrome is a poorly understood condition that occurs after a student athlete receives a concussion. Student athletes who receive concussions can have symptoms that last a few days to a few months, and even up to a full year, until their neurocognitive function returns to normal. Therefore, all school personnel

must pay attention to and closely observe all student athletes for post concussion syndrome and its symptoms.

Student athletes who are still suffering from concussion symptoms are not ready to return to play.

The signs and symptoms of post concussion syndrome are:

- Dizziness
- Headache with exertion
- Tinnitus (ringing in the ears)
- Fatigue
- Irritability
- Frustration
- Difficulty in coping with daily stress

- Impaired memory or concentration
- Eating and sleeping disorders
- Behavioral changes
- Alcohol intolerance
- Decreases in academic performance
- Depression
- Visual disturbances

Second Impact Syndrome:

Second impact syndrome is a serious medical emergency and a result of an athlete returning to play and competition too soon following a concussion. Second impact syndrome occurs because of rapid brain swelling and herniation of the brain after a second head injury that occurs before the symptoms of a previous head injury

have been resolved. The second impact that a student athlete may receive may only be a minor blow to the head or it may not even involve a hit to the head. A blow to the chest or back may create enough force to snap the athlete's head and send acceleration/deceleration forces to an already compromised brain. The resulting symptoms occur because of a disruption of the brain's blood autoregulatory system which leads to swelling of the brain, increasing intracranial pressure and herniation.

After a second impact a student athlete usually does not become unconscious, but appears to be dazed. The student athlete may remain standing and be able to leave the field under his/her own power. Within fifteen seconds to several minutes, the athlete's condition worsens rapidly, with dilated pupils, loss of eye movement, loss of consciousness leading to coma and respiratory failure. The best way to handle second impact syndrome is to prevent it from occurring altogether. All student athletes who incur a concussion must not return to play until they are asymptomatic and cleared by an appropriate health care professional.

Concussion Education: The school district must provide education to athletes and parents regarding head injuries and concussions. Parents and athletes must take the free on-line concussion education course (<http://www.nfhslearn.com/electiveDetail.aspx?courseID=15000>) and provide a copy of the certificate of completion to athletic director yearly. In addition, parents and athletes must complete the Head Injury Disclosure Form and give it to the athletic director. Finally, parents and athletes are also encouraged to read the head injury/concussion information sheets which are found on the Department of Public Health website:

http://www.cdc.gov/concussion/pdf/Athletes_Fact_Sheet-a.pdf

http://www.cdc.gov/concussion/pdf/Parents_Fact_Sheet-a.pdf

Documentation required by the Department of Public Health: The Department of Public Health Pre-Participation Form has been added to the athletic department permission to play form. This form must be filled out completely for a student to participate in any sport. The athletic director will share any relevant information about an individual athlete with his/her coach. The state also requires schools to file an accident report if a head injury should occur. The athletic director will be responsible for completing records of all head injuries related to athletics.

Parent/Student Participation Agreement

This form is to be completed and given to the athletic director after both the parent and the student complete one of the on-line concussion courses.

As a citizen, I know that the use of alcohol or drugs is unlawful. As a student, I realize that the use of alcohol, drugs, or tobacco is unhealthy. As an athlete, I recognize that the use of alcohol, drugs (including steroids), and tobacco impairs my mental and physical ability and thereby, my performance.

Recognizing this, I understand and accept that the use of alcohol, tobacco, or drugs during school time or at school sponsored activities will subject me to the same disciplinary action as any other student. I further understand and accept that additional disciplinary actions may be taken by the Athletic Department, and that such action could include being declared ineligible for athletic participation for one full academic year.

Further, because of my special status as a student athlete and because other participants generally depend on the quality of my performance as an athlete, I agree to abide by any additional agreements between the team and the coach that seek to regulate behavior or activities that might affect training and conditioning. These agreements would be developed by team members, captains and coaches; over behavior or activities away from school and school-sponsored functions and will be monitored and enforced by team members and captains. I realize and accept that failure to abide by these agreements might also result in disciplinary action, including exclusion from team participation.

Student Name (please print): _____

Parent Name (please print): _____

I grant my child permission to participate under the following conditions (check off):

I absolve the school of any financial responsibility for injuries.

I assume responsibility for any equipment issued to my child.

My child is covered by: Home Insurance _____

I have read the Student/Coaches Athletic Code and understand the conditions outline in the code.

I have completed the on-line concussion course and am attaching the certificate of completion.

I am attaching the DPH Pre-Participation Form.

I will notify the school if my child is diagnosed with a concussion.

Date: _____ Parent Signature: _____

I promise to return or make proper restitution for all equipment and gear issued to me.

I have read the Student/Athlete Athletic Code and understand the conditions outlined in the code.

I have completed the on-line concussion course and am attaching the certificate of completion.

Date: _____ Student Signature: _____

File: JJIF-R

The forms will be kept in the nurse's office. The school nurse will be responsible for completing records of all other head injuries and the forms will be kept in the office of the school nurse.

Medical Clearance Form: State regulations require that students removed from play due to a head injury or suspected concussion must have medical clearance to return to play. The Department of Public Health medical clearance form will be utilized. This form contains information helpful in monitoring the students return to play after a head injury. The athletic director will be responsible for getting the form completed and keeping a copy on file in the nurse's office. The form is available at: <http://www.gove.gov/dph/injury>. Please note that a student's return to full academic and extracurricular activity is contingent on the approval of the school nurse.

Parent/Student Notification: A summary of this policy and its related protocols shall be placed in the student and faculty handbooks. The policy will be reviewed at mandatory pre-season athletic orientation meetings

Harvard Public Schools Head Injury and Concussion Policy **Summation of Requirements**

- Coaches are required to take an online concussion course and test yearly.
<http://www.nfhslearn.com/electiveDetail.aspx?courseID=15000>
http://www.cdc.gov/concussion/HeadsUp/online_training.html
- Each coach must provide the athletic director documentation the test has been taken and passed.
- The Department of Public Health pre-participation head injury/concussion reporting form must be completed before sport participation.
- All students and parents must provide verification that they have taken the free on-line head injury and concussion course and test yearly.
- <http://www.nfhslearn.com/electiveDetail.aspx?courseID=15000>
- Any student showing signs of a head injury will be removed from the activity.
- Resumption of full academic and extracurricular activity is contingent upon receiving the approval of physician and the school nurse.

ADOPTED: APRIL 9, 2012

REVIEWED: September 16, 2013

LEGAL REF: [M.G.L 166.222](#)
 [CMR 105.201](#)