

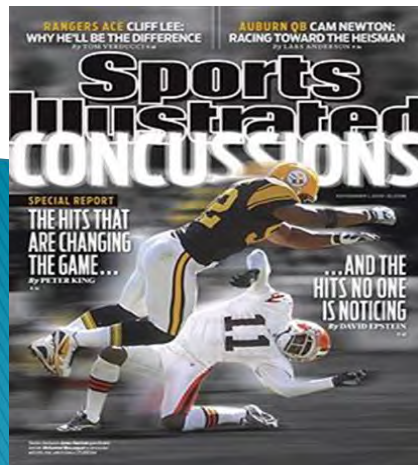


MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH

Presentation on Regulations 105 CMR 201.000:
Head Injuries and Concussions In Extracurricular
Athletic Activities
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2017



Introduction



- This presentation summarizes the Massachusetts regulations *105 CMR 201.000: Head Injuries and Concussions In Extracurricular Athletic Activities*.
- Understanding of the these regulations is a prerequisite for physicians, nurse practitioners, licensed athletic trainers, physician assistants and neuropsychologists completing the Massachusetts Department of Public Health (MDPH) Approved Clinical Training.
- All of the above must complete a DPH approved clinical training to provide medical clearance for student athletes to return to play. This entire webinar is an approved DPH clinical training.





Scope

- ▶ In July 2010, Governor Patrick signed Chapter 166 of Acts of 2010, a law on sports-related head injuries to promote the safety of young athletes in Massachusetts.
- ▶ The Department of Public Health wrote the regulations *Head Injuries and Concussions in Extracurricular Activities 105 CMR 201.000* to implement this law and provides standardized procedures for persons involved in the prevention, training, and management regarding students who incur head injuries while involved in any extracurricular athletic activity.
- ▶ These regulations apply to public middle and high schools serving grade 6 through high school graduation and other schools subject to the official rules of the Massachusetts Interscholastic Athletic Association (MIAA). (The statute does not apply to Pop Warner, Little League, Town or Club Sports.)



Scope

- ▶ The regulations stress a team approach, bringing together all those in the school community responsible for the student's safety to understand the risks of concussion so they can respond appropriately.
- ▶ The major components of these Head Injuries and Sports Concussion Regulations cover:
 - Annual Training (required for students, parents and medical and athletic staff)
 - School Policies re: prevention and management of sports concussion
 - Exclusion from Play when sustaining a head injury or suspected concussion
 - Medical Clearance and Return to Play
 - Data Reporting





Annual Training*

- ▶ The following must take the annual concussion training:
 - school coaches,
 - school physicians,
 - athletic trainers,
 - nurses,
 - athletic directors,
 - marching band directors
 - students and their parents who participate in an extracurricular athletic activity
 - Other trainers and volunteers involved in extracurricular sports

*(The Annual Training is different than the Clinical Training)



Annual Training Courses



- ▶ Two, free online courses meet the annual training requirement.
 - 1) ***Heads Up: Concussion in Youth Sports*** from the Centers for Disease Control and Prevention:
<https://www.cdc.gov/headsup/highschoolsports/training/index.html>
 - 2) ***Concussion in Sports: What you Need to Know*** from the National Federation of State High School Associations:
<http://nfhslearn.com/courses/61064/concussion-in-sports>
- ▶ There are other annual training programs that have been approved by MDPH:
<http://www.mass.gov/eohhs/gov/departments/dph/programs/community-health/dvip/injury-prevention/information-for-schools.html>

Documentation and Review of Forms



- ▶ The school shall ensure that all forms are completed and reviewed. These forms are posted at www.mass.gov/sportsconcussion and are:
 - (1) **Pre-participation Head Injury/Concussion Reporting Form for Extracurricular Activities, (or school-based equivalent)**
 - To be reviewed by coaches, school nurses, athletic trainers and/or physicians so as to identify students who are at greater risk of repeated head injuries;
 - (2) **Report of a Head Injury During Sports Season Form**
 - To be completed by coaches immediately after the game or practice for head injuries that result in the student being removed from play due to a *possible* concussion.
 - To be completed by parent/guardian if the student has a head injury outside of school related extracurricular athletic activities.
 - (3) **Post Sports-Related Head Injury Medical Clearance and Authorization Form**
 - The medical clearance should be only provided *after* a graduated return to play plan has been completed and student has been symptom free at all stages.

School Policies



All school districts and schools must have policies and procedures governing the prevention and management of sports-related head injuries. At a minimum, these policies shall include:

- ▶ Annual training requirement;
- ▶ Documentation of annual physical examination;
- ▶ Pre-participation Head Injury Reporting forms, submission and review;
- ▶ Medical/nursing review of reports of head injury during the season;
- ▶ Procedures for removing student athletes from play and referring for medical evaluation;
- ▶ Protocol for medical clearance for return to play;
- ▶ Procedure for the development and implementation of post-concussion graduated reentry plans;
- ▶ Requirements for coaches, licensed athletic trainers, other trainers and volunteers to teach strategies that minimize sports-related head injury and prohibit dangerous play;



Head Strong: School Policy Guidance



**Section 9:
Medical Clearance for
Return to Play**

Regulative 105 CMR 201.006(A)(9):
The protocol for medical clearance for return to play after a concussion that at a minimum complies with 105 CMR 201.011.

105 CMR 201.011:
Each student who is removed from practice or competition for a head injury or suspected concussion, or loses consciousness, even briefly, or exhibits signs and symptoms of a concussion, shall advise and present to the Athletic Director, unless another person is specified in school policy or procedure, a Department Post Sports-Related Head Injury Medical Clearance and Authorization Form (Medical Clearance and Authorization Form), or school-based equivalent, prior to resuming the extracurricular athletic activity. This form must be completed by a physician or one of the individuals as authorized by 105 CMR 201.011(A). The ultimate return to play decision is a medical decision that may involve a multidisciplinary approach, including consultation with parents, the school nurse and teachers as appropriate.

105 CMR 201.011(A):
Only the following individuals may authorize a student to return to play:
(1) A duly licensed physician;
(2) A duly licensed certified athletic trainer in consultation with a licensed physician;
(3) A duly licensed nurse practitioner in consultation with a licensed physician; or
(4) A duly licensed neuropsychologist in coordination with the physician managing the student's recovery.

Overview:
If an athlete is removed from play for a suspected concussion, he or she must be medically cleared and evaluated before returning to play/practice. If the student was diagnosed with a concussion, the medical clearance can only be provided **after** he or she has completed a graduated return to play plan indicating they are ready to resume physical

activity. To provide this clearance, MDPH has developed a **Sports-Related Head Injury Medical Clearance and Authorization Form** which link may be found in the **Additional Resources** section or on the MDPH website. Schools may use this form or a school-based equivalent including the same information. The form may include additional information the school wishes to collect. The following elements should be included on the school-based equivalent:

- Student's name, sex, date of birth, grade
- Date of injury
- Symptoms and their duration
- Diagnosis
- If a concussion was diagnosed, date of completion of graduated RTP plan
- Past history of previous concussions
- Health provider's name, address, phone #
- Health provider's designation as physician, CA, NP or neuropsychologist
- If not physician, name of physician providing consultation or coordination
- Signature and date of health provider providing clearance

In order to comply with the regulations, this section of the school's policies must include: confirmation that students may not return to play/practice until medical clearance is obtained, what form will be used, who receives the medical clearance, where forms will be kept, and what procedures will be followed if symptoms are observed after a student resumes physical activity. For more information about graduated return to play plans, see Section 10 of this document. **Of note:** the athlete must be completely symptom-free at rest before beginning a graduated return to play process.

There is substantial flexibility to develop policies and protocols that meet the needs and resources of a particular school or school district. This is reflected in the sample policies below.

Return to Play Sample Policy 1:
The _____ school physician, if available, should also be involved. **Medical clearance is meant to be provided AFTER a student has completed his or her graduated return to play plan.**

The medical provider giving medical clearance for returning to play must use the MDPH Medical Clearance Form, "Post Sports-Related Head Injury Medical Clearance and Authorization Form," available on the MDPH website (www.mass.gov/eohhs/docs/dph/com-health/injury/posthead-injury-clearance-form.pdf), or a school-based equivalent that includes the same

This can be found at <http://www.mass.gov/eohhs/docs/dph/com-health/injury/head-injury-reg-guide-acc.pdf>

Pre-Participation Requirements



- ▶ Students and parents must complete and submit a *Pre-participation Form* (with history of prior head injury/concussion) or school-based equivalent **before each sports season.**
- ▶ This form is reviewed by nursing and athletic staff to so as to identify students who are at greater risk of repeated head injuries or who have had previous head injuries and to ensure that it is safe for student to participate in school sports.
- ▶ This form can be found at <http://www.mass.gov/eohhs/docs/dph/com-health/injury/preparticipation-reporting-form.pdf>



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 Executive Office of Health and Human Services
 Department of Public Health
 250 Washington Street, Boston, MA 02108-4619

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**PRE-PARTICIPATION HEAD
 INJURY/CONCUSSION REPORTING FORM
 FOR EXTRACURRICULAR ACTIVITIES**

This form should be completed by the student's parent(s) or legal guardian(s). It must be submitted to the Athletic Director, or official designated by the school, prior to the start of each season a student plans to participate in an extracurricular athletic activity.

Student's Name	Sex	Date of Birth	Grade
School		Sport(s)	
Home Address			Telephone

Has student ever experienced a traumatic head injury (a blow to the head)? Yes _____ No _____

If yes, when? Dates (month/year): _____

Has student ever received medical attention for a head injury? Yes _____ No _____

If yes, when? Dates (month/year): _____

If yes, please describe the circumstances: _____

Was student diagnosed with a concussion? Yes _____ No _____

If yes, when? Dates (month/year): _____

Duration of Symptoms (such as headache, difficulty concentrating, fatigue) for most recent concussion: _____

Parent/Guardian:
 Name: _____ Signature/Date _____
 (Please print)

Student Athlete:
 Signature/Date _____





Exclusion from Play

- ▶ Any student, who during a practice or competition, sustains a head injury or suspected concussion, or exhibits signs and symptoms of a concussion, or loses consciousness, even briefly, shall be removed from the practice or competition immediately and may not return to the practice or competition that day.
- ▶ The coach shall communicate the nature of the injury directly to the parent immediately after the practice or competition in which a student has been removed from play and shall communicate, by the end of the next business day, with the Athletic Director and school nurse that the student has been removed from practice or competition for a head injury or suspected concussion.



Exclusion from Play (cont.)



- ▶ If a student suffers a head injury outside of school-sponsored extracurricular athletics, parents must inform the coach or school nurse about any head injury that a student suffered. The parent should submit the Report of Head Injury form to the coach or school nurse. School staff need this information to ensure students' safe participation in school athletics.
- ▶ The ***Report of Head Injury form*** can be found at:

<http://www.mass.gov/eohhs/docs/dph/com-health/injury/in-season-report-form.pdf>



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**REPORT OF HEAD INJURY DURING
 SPORTS SEASON**

This form is to report head injuries (other than minor cuts or bruises) that occur during a sports season. It should be returned to the athletic director or staff member designated by the school and reviewed by the school nurse.

For Coaches: Please complete this form immediately after the game or practice for head injuries that result in the student being removed from play due to a *possible* concussion.

For Parents/Guardians: Please complete this form if your child has a head injury outside of school related extracurricular athletic activities.

Student's Name	Sex	Date of Birth	Grade
School		Sport(s)	
Home Address			Telephone

Date of injury: _____

Did the incident take place during an extracurricular activity? ____ Yes ____ No

If so, where did the incident take place? _____

Please describe nature and extent of injuries to student:

For Parents/Guardians:

Did the student receive medical attention? yes ____ no ____

If yes, was a concussion diagnosed? yes ____ no ____

I HEREBY STATE THAT TO THE BEST OF MY KNOWLEDGE, MY ANSWERS TO THE ABOVE QUESTIONS ARE COMPLETE AND CORRECT.

Please circle one: Coach or Marching Band Director

Parent/Guardian

Name of Person Completing Form (please print): _____

Signature _____ Date _____





The Clinician's Role: Graduated Reentry Plan

- ▶ Each student who is removed from practice or competition and subsequently diagnosed with a concussion shall have a written graduated reentry plan for return to full academic and athletic activities.
- ▶ Returning a student to play too soon after a known or suspected concussion places the student at risk for long-term health consequences, including serious injury or in rare cases even death.
- ▶ The plan shall be developed by the student's teachers, guidance counselor, school nurse, certified athletic trainer if on staff, neuropsychologist if involved, parent, members of the student support and assistance team and in consultation with the student's primary care provider or the physician who is managing the student's recovery.

The Clinician's Role: Graduated Reentry Plan



- ▶ The written plan shall include instructions for students, parents and school personnel, addressing but not be limited to:
 - (a) **Physical and cognitive rest** as appropriate;
 - (b) **Graduated return** to extracurricular athletic activities and classroom studies as appropriate, including accommodations or modifications as needed;
 - (c) **Estimated time intervals** for resumption of activities;
 - (d) **Frequency of assessments** by the school nurse, school physician, team physician, certified athletic trainer if on staff, or neuropsychologist if available until full return to classroom activities and extracurricular athletic activities are authorized; and
 - (e) A **plan for communication and coordination** between and among school personnel and between the school, the parent, and the student's primary care provider or physician who made the diagnosis or who is managing the student's recovery.



The Clinician's Role: Medical Clearance



- ▶ The student must be completely symptom-free at rest in order to begin graduated reentry to extracurricular athletic activities. The student must be completely symptom free at rest, during exertion and with cognitive activity in order to complete the graduated re-entry plan and be medically cleared to play.
- ▶ The risk of substantial injury is particularly high if the athlete suffers a subsequent concussion before completely recovering from the prior one.
- ▶ This can lead to prolonged recovery, or even to severe brain swelling (second impact syndrome.)





The Clinician's Role: Medical Clearance (cont.)

- ▶ Each student who is removed from practice or competition for a head injury or suspected concussion shall obtain and present to the Athletic Director, a ***Department Post Sports-Related Head Injury Medical Clearance and Authorization Form (Medical Clearance and Authorization Form)***, or school-based equivalent, prior to resuming the extracurricular athletic activity. It must be completed by a one of the clinicians listed in the next slide. The ultimate return to play decision is a medical decision that may involve a multidisciplinary approach,

- ▶ This form can be found at:

<http://www.mass.gov/eohhs/docs/dph/com-health/injury/posthead-injury-clearance-form.pdf>

The Clinician's Role: Medical Clearance (cont.)



- ▶ Only the following individuals may authorize a student to return to play:
 - (1) A licensed physician;
 - (2) A licensed athletic trainer in consultation with a licensed physician;
 - (3) A licensed nurse practitioner in consultation with a licensed physician; or
 - (4) A licensed neuropsychologist in coordination with the physician managing the student's recovery or
 - (5) A licensed physician assistant under the supervision of a licensed physician

Clinical Training



- ▶ Physicians, nurse practitioners, licensed athletic trainers, physician assistants and neuropsychologists providing medical clearance for return to play shall verify that they have received Department–approved clinical training in post traumatic head injury assessment and management or have received equivalent training as part of their licensure or continuing education on the ***Medical Clearance (next slide)*** form.
- ▶ This MDPH approved Clinical Trainings can be found at: <http://www.mass.gov/eohhs/gov/departments/dph/programs/community-health/dvip/injury-prevention/information-for-medical-providers.html>





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 Department of Public Health

**POST SPORTS-RELATED HEAD INJURY
 MEDICAL CLEARANCE AND
 AUTHORIZATION FORM**

This medical clearance should be only be provided *after* a graduated return to play plan has been completed and student has been symptom free at all stages. *The student must be completely symptom free at rest and during exertion prior to returning to full participation in extracurricular athletic activities.*

Student's Name	Sex	Date of Birth	Grade
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Date of injury: _____ Nature and extent of injury: _____

Symptoms (check all that apply):

- | | | |
|--|---|--|
| <input type="checkbox"/> Nausea or vomiting | <input type="checkbox"/> Headaches | <input type="checkbox"/> Light/noise sensitivity |
| <input type="checkbox"/> Dizziness/balance problems | <input type="checkbox"/> Double/blurred vision | <input type="checkbox"/> Fatigue |
| <input type="checkbox"/> Feeling sluggish/"in a fog" | <input type="checkbox"/> Change in sleep patterns | <input type="checkbox"/> Memory problems |
| <input type="checkbox"/> Difficulty concentrating | <input type="checkbox"/> Irritability/emotional ups and downs | <input type="checkbox"/> Sad or withdrawn |
| <input type="checkbox"/> Other _____ | | |

Duration of Symptom(s): _____ Diagnosis: Concussion Other: _____

If concussion diagnosed, date student completed graduated return to play plan without recurrent symptoms: _____

Prior concussions (number, approximate dates): _____

Name of Physician or Practitioner: _____

Physician Certified Athletic Trainer Nurse Practitioner Neuropsychologist

Address: _____ Phone number: _____

Physician providing consultation/coordination (if not person completing this form): _____

I HEREBY AUTHORIZE THE ABOVE NAMED STUDENT FOR RETURN TO EXTRACURRICULAR ATHLETIC ACTIVITY AND ATTEST THAT I HAVE RECEIVED CLINICAL TRAINING IN POST-TRAUMATIC HEAD INJURY ASSESSMENT AND MANAGEMENT APPROVED BY THE DEPARTMENT OF PUBLIC HEALTH* OR HAVE RECEIVED EQUIVALENT TRAINING AS PART OF MY LICENSURE OR CONTINUING EDUCATION.

Physician or Practitioner signature: _____ Date: _____

Please indicate type of clinical training received (optional):

DPH Clinical Training On-line Training Other (Describe) _____

*By September 2013, physicians, nurse practitioners, certified athletic trainers, and neuropsychologists providing medical clearance for return to play shall verify that they have received Department-approved training in post traumatic head injury assessment and management or have received equivalent training as part of their licensure or continuing education. This MDPH approved Clinical Training can be found at: [www.mass.gov/dph/sports concussion](http://www.mass.gov/dph/sports%20concussion)

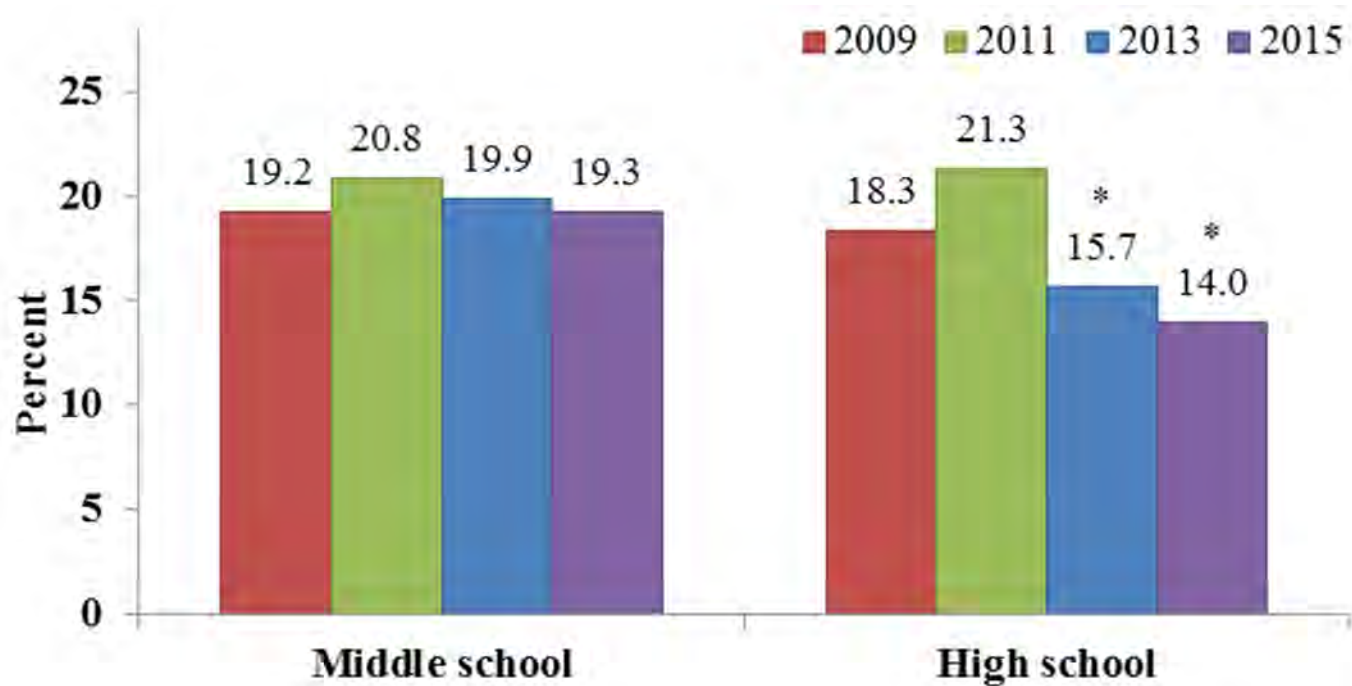
School Reporting Requirements



- ▶ Every school year, schools shall be responsible for maintaining and reporting to MDPH annual statistics which include:
- ▶ The total # of Department Report of Head Injury Forms (or school-based equivalents) received by the school; and
- ▶ The total # of students who incur head injuries & suspected concussions when engaged in any extracurricular athletic activities.

*These forms are due to MDPH by August 31
every year*

Percentage of Massachusetts Students(1) Reporting Symptoms of a TBI(2) While Playing with a Sports Team in the Past 12 months

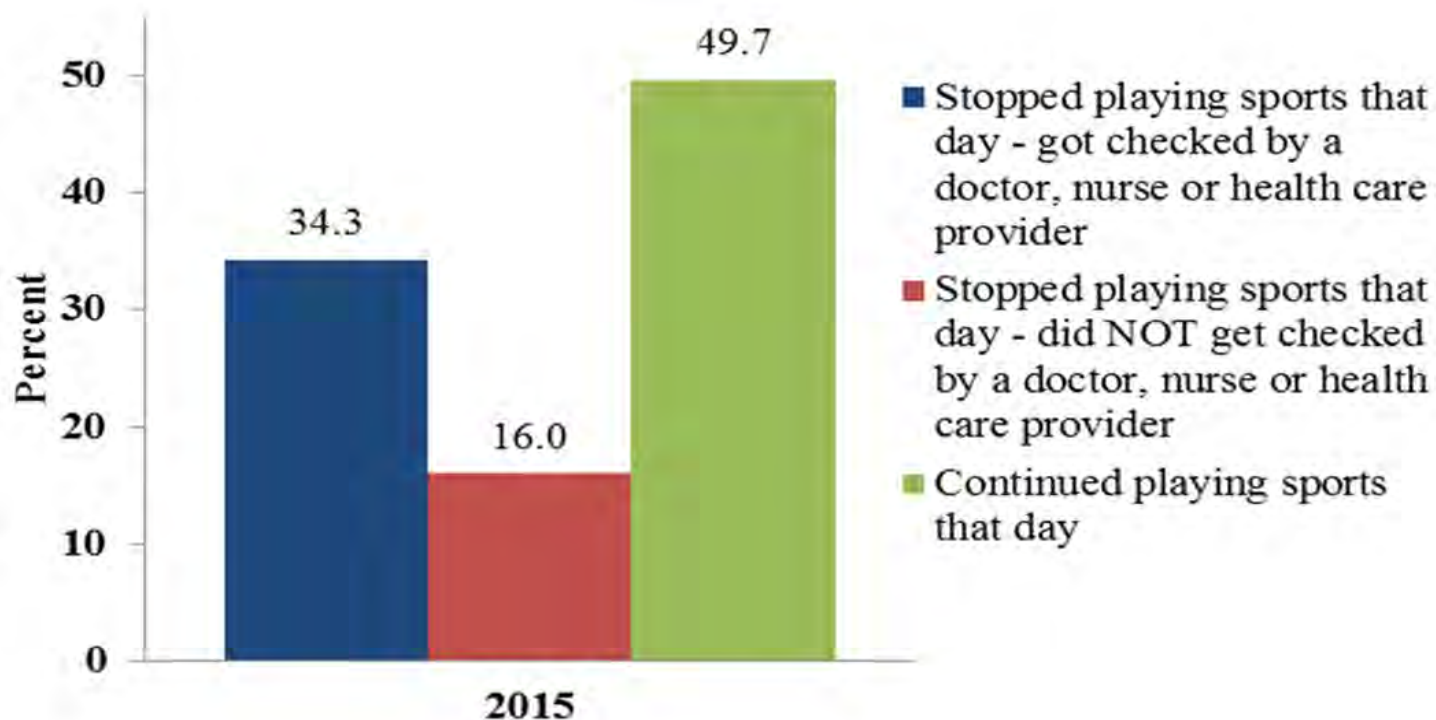


1) Includes only students who played on a sports team in the past 12 months.

2) Reported they suffered a blow or jolt to head while playing with a sports team (during a game or practice) which caused them to get "knocked out", have memory problems, double or blurry vision, headaches or "pressure" in the head or nausea or vomiting.

Source: MA Youth Health Survey, MA Department of Public Health

Percentage of Students Reporting Actions Taken Following Symptoms of a TBI(2) While Playing with a Sports Team in the Past 12 months



Includes only students who played on a sports team and who reported symptoms of a traumatic brain injury following blow or strike to head during sports in the past 12 months

Source: MA Youth Health Survey, MA Dept. of Public Health

Implementation Challenges and Successes



- ▶ Often larger numbers of concussions than expected
- ▶ Reviewing and maintaining new forms
- ▶ Taxing existing nursing and athletic staff
- ▶ No new financial resources
- ▶ Clinicians may be unaware of their responsibilities for formal medical clearance; final clearance may be difficult to obtain
- ▶ More students getting concussion treatment earlier because of increased awareness and earlier detection;
- ▶ More students recovering more quickly and completing graduated re-entry plans successfully
- ▶ Law empowered SNs & ATs when negotiating care of concussed students with physicians, parents, coaches, etc.
- ▶ Confusion among stakeholders on difference between return to school & return to sports

Resources and Weblinks



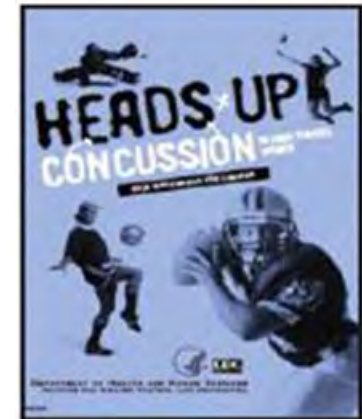
- ▶ Mass. Department of Public Health/Division of Violence and Injury Prevention
www.mass.gov/sportsconcussion
- ▶ Brain Injury Association of Massachusetts
Brain Injury Helpline: 1-800-242-0030
<http://www.biama.org/>
- ▶ Sports Concussion New England
<http://www.sportsconcussion.net/>
- ▶ Centers for Disease Control and Prevention
800-CDC-INFO (800-232-4636)
www.cdc.gov/concussion/sports/index.html
www.cdc.gov/concussion/sports/resources.html
- ▶ Massachusetts Interscholastic Athletic Association (MIAA)
<http://www.miaa.net/miaa/home?sid=38>
- ▶ Concussion Legacy Foundation
<http://concussionfoundation.org/>
- ▶ Massachusetts Concussion Management Coalition
info@massconcussion.org
<https://mcmc.wildapricot.org>
- ▶ The South Shore Hospital
www.southshorehospital.org/head-smart



Resources and Weblinks



- ▶ Spaulding Rehabilitation Network
Boston, MA
<http://spauldingrehab.org/conditions-and-treatments/brain-injury-rehabilitation>
- ▶ UMass. Memorial Medical Center Sports Medicine Clinic
Worcester, MA
<https://www.umassmemorialhealthcare.org/umass-memorial-medical-center/services-treatments/orthopedics/services-we-provide/sports-medicine>
- ▶ Dr. Robert C. Cantu Concussion Center
Emerson Hospital, Concord, MA
<http://www.emersonhospital.org/en/MedServicesAndCenters/Centers/Cantu.aspx>
- ▶ Boston Childrens Hospital Concussion Clinic
<http://www.childrenshospital.org/centers-and-services/sports-concussion-clinic-program>
- ▶ Mass. General Hospital Sports Concussion Clinic
Boston, MA
<http://www.massgeneral.org/children/services/treatmentprograms.aspx?id=1689>
- ▶ South Shore Hospital Concussion Management Clinic
South Weymouth, MA
<http://www.southshorehospital.org/head-smart>
- ▶ Spaulding Rehabilitation Hospital
East Sandwich, MA
<http://spauldingrehab.org/locations/sandwich-ma/programs-services>
- ▶ Beth Israel Hospital Plymouth
<http://www.bidplymouth.org/>
- ▶ Brain Injury and Statewide Specialized Community Services
<http://www.mass.gov/eohhs/consumer/disability-services/services-by-type/head-injury/bisscs.html>



Resources / Weblinks



Videos:

- ▶ Concussions 101, A Primer for Kids and Parents (5 minute video)
<http://www.evanshealthlab.com/concussion101> or
www.youtube.com/watch?v=zCCD52Pty4A
- ▶ Brain 101 (4 minute video)
https://www.youtube.com/watch?v=_5hlm3FRFYU

Graduated Re-Entry Plans

- ▶ Head Smart:
http://www.southshorehospital.org/workfiles/Medical_Services/Orthopedics/HeadSmart.pdf
- ▶ REAP Concussion Management Program
http://issuu.com/healthone/docs/reap_oct21/1?e=1811185/5400960
- ▶ Consensus statement on concussion in sport: the 4th International Conference on Concussion in Sport held in Zurich, November 2012
<http://bjsm.bmj.com/content/47/5/250.full>

