

# AMHERST CENTRAL SCHOOL DISTRICT



## Concussion Management Regulations & Mandates

**Anthony Panella - Superintendent**  
**Greg Pigeon - High School Principal**  
**John Griesmer - Middle School Principal**  
**Dr. Kiel Illg - Director of Health, PE & Athletics**

# Concussions: The Invisible Injury

## Student and Parent Information Sheet

### CONCUSSION DEFINITION

**A concussion is a reaction by the brain to a jolt or force that can be transmitted to the head by an impact or blow occurring anywhere on the body. Essentially a concussion results from the brain moving back and forth or twisting rapidly inside the skull.**

### FACTS ABOUT CONCUSSIONS ACCORDING TO THE CENTER FOR DISEASE CONTROL (CDC)

- An estimated 4 million people under age 19 sustain a head injury annually. Of these approximately 52,000 die and 275,000 are hospitalized.
- An estimated 300,000 sport and recreation related concussions occur each year.
- Students who have had at least one concussion are at increased risk for another concussion.

In New York State in 2009, approximately 50,500 children under the age of 19 visited the emergency room for a traumatic brain injury and of those approximately 3,000 were hospitalized.

### REQUIREMENTS OF SCHOOL DISTRICTS

#### Education:

- Each school coach, physical education teacher, nurse and athletic trainer will have to complete an approved course on concussion management on a biennial basis, starting with the 2012-2013 school year.
  - School coaches and physical education teachers must complete the CDC course. ([www.cdc.gov/concussion/HeadsUp/online\\_training.html](http://www.cdc.gov/concussion/HeadsUp/online_training.html))
  - School nurses and certified athletic trainers must complete the concussion course. (<http://preventingconcussions.org>)

#### Information:

- Provide concussion management information and sign off with any parental permission form. **the NYSPHSAA will provide a pamphlet to member schools on the concussion management information for parents.**
- The concussion management and awareness information on the State Education Department's web site must be made available on the school web site, if one exists.

#### Removal from Athletics:

- Require the immediate removal from athletic activities of any pupil that has or is believed to have sustained a mild traumatic brain injury.
- No pupils will be allowed to resume athletic activity until they have been symptom free for 24 hours and have been evaluated by and received written

and signed authorization from a licensed physician. For interscholastic athletics, clearance must come from the school medical doctor.

- Such authorization must be kept in the pupil's permanent health record.
- Schools shall follow directives issued by the pupil's treating physician.

## **SYMPTOMS**

**Symptoms of a concussion are the result of a temporary change in the brain's function.** In most cases, the symptoms of a concussion generally resolve over a short period of time; however, in some cases, symptoms will last for weeks or longer. Children and adolescents are more susceptible to concussions and take longer than adults to recover.

***It is imperative that any student who is suspected of having a concussion is removed from athletic activity (e.g. recess, PE class, sports) and remains out of such activities until evaluated and cleared to return to activity by a physician.***

**Symptoms include, but are not limited to:**

- Decreased or absent memory of events prior or immediately after the injury, or difficulty retaining new information
- Confusion or appears dazed
- Headache or head pressure
- Loss of consciousness
- Balance difficulties, dizziness, or clumsy movements
- Double or blurry vision
- Sensitivity to light and/or loss of appetite
- Irritability, sadness or other changes in personality
- Feeling sluggish, foggy or light-headed
- Concentration or focusing problems
- Drowsiness
- Fatigue and/or sleep issues-sleeping more or less than usual

**Students who develop any of the following signs, or if signs and symptoms worsen, should be seen and evaluated immediately at the nearest hospital emergency room.**

- Headaches that worsen
- Looks drowsy and/or cannot be awakened
- Repeated vomiting
- Slurred speech
- Unable to recognize people or places
- Weakness or numbness in arms or legs, facial drooping
- Unsteady gait
- Change in pupil size in one eye
- Significant irritability
- Any loss of consciousness
- Suspicion for skull fracture; blood draining from ear or clear fluid from the nose.

## RETURN TO LEARN AND RETURN TO PLAY PROTOCOLS

### ***Cognitive Rest:***

Activities students should avoid include, but are not limited to, the following:

- Computers and video games
- Television viewing
- Texting
- Reading and writing
- Studying or homework
- Taking a test or completing significant projects
- Loud music
- Bright lights

Students may only be able to attend school for short periods of time. Accommodations may have to be made for missed tests and assignments.

### ***Physical Rest:***

Activities students should avoid include, but are not limited to, the following:

- Contact and collision
- High speed, intense exercise and /or sports
- High risk for reinjury or impacts
- Any activity that results in an increased heart rate or increased head pressure.
- 

### ***Return to Play Protocol***

One symptom free for 24 hours and cleared by the School Medical Director:

**Day 1:** Low impact, non strenuous, light aerobic activity

**Day 2:** Higher impact, higher exertion, moderate aerobic activity. No resistance training.

**Day 3:** Sport specific non-contact activity. Low resistance weight training with a spotter.

**Day 4:** Sport specific activity, non-contact drills. Higher resistance weight training with a spotter.

**Day 5:** Full contact training drills and intense aerobic activity.

**Day 6:** Return to full activities with clearance from School Medical Director.

**Any return of symptoms during the return to play protocol, the student will return to previous day's activities until symptom free.**

## STUDENT RESPONSIBILITY MEDICAL CLEARANCE

1. NYSPHSAA regulations require all students to have a current health examination to engage in inter-school competition. The school medical officer must approve student health examinations before athletes may practice or participate. No student may begin to practice without a physical exam and a signed health update/permission form. These forms must be completed before each sport season.
2. If the exam is out of date contact your private physician immediately to schedule a health appraisal. Bring the completed health appraisal to the nurses office at least two weeks before the first practice.
3. Complete and sign the health history form no earlier than one month prior to the start of practice. Bring the completed form and health appraisal if your exam was expired to the nurse. Failure to get your medical clearance on time will result in a delay in your being able to practice on the first day.
4. If you have had an injury or extended illness since your last sport clearance, an updated health care provider note is required for your return to sports.
5. The District does not have a medical insurance policy that provides coverage for student injuries. Parents/legal guardians are responsible for the cost of medical treatment due to most athletic injuries. The New York State Public High School Athletic Association does provide for catastrophic medical insurance coverage to member school districts when cost exceed \$10,000. The District participates in this program.
6. Return the completed yellow emergency card to your coach.
7. Sign and return the attached signature sheet to your coach; signed by both the parent/guardian and student for the athletic contract, photo and video

## Overview and Features of the ImPact® Test

ImPact® (Immediate Post-Concussion Assessment and Cognitive Testing) is the first, most-widely used, and most scientifically validated computerized concussion evaluation system. ImPact® was developed to provide useful information to assist qualified practitioners in making sound return to play decisions following concussions.

Developed in the early 1990's by Dr's. Mark Lovell and Joseph Maroon, ImPact® is a 20-minute test that has become a standard tool used in comprehensive clinical management of concussions for athletes from age 10 through adulthood. ImPact® Applications, Inc. was co-founded by Mary Lovell PhD, Joseph Maroon, MD and Michael (Micky) Collins, PhD.

Given the inherent complexities of concussion management, it is important to manage concussions on an individualized basis and to implement baseline testing and/or post injury neurocognitive testing whenever possible. Neurocognitive assessment can help to objectively evaluate the concussed athlete's post-injury condition and track recovery for safe return to play, thus preventing the cumulative effects of concussion. In fact, neurocognitive testing has been called the "cornerstone" of proper concussion management by an international panel of sports medicine experts.

ImPact® can be administered by an athletic trainer, school nurse, athletic director, team doctor or psychologist, provided that they have completed training in the administration of the test. Post-concussion care and the management of concussion should only be administered by professionals with specialized training in concussion management. ImPact® assists doctors in making return-to-play decisions and should never be used as a stand-alone tool or as a diagnostic instrument. ImPact® is the most widely used computer-based testing program in the world and is implemented effectively across high school, collegiate, and professional levels of sport participation.

### TEST FEATURES

- Measures player symptoms
- Measures verbal and visual memory, processing speed and reaction time
- Reaction time measured to a 1/100th of second
- Assists clinicians and athletic trainers in making difficult return-to-play decisions
- Provides reliable baseline test information
- Produces a comprehensive report of test results
- Results are presented as a PDF file and can be emailed
- Automatically stores data from repeat testing
- Testing is administered online for individuals or groups
- Compatible with PC and MAC

The test battery consists of a near infinite number of alternate forms by randomly varying the stimulus array for each administration. This feature was built into the program to minimize the "practice effects" that have limited the usefulness of more traditional neurocognitive tests.

ImPact® takes approximately 20 minutes to complete. The program measures multiple aspects of cognitive functioning in athletes, including:

- Attention span
- Working memory
- Sustained and selective attention time
- Response variability
- Non-verbal problem solving
- Reaction time

## CONCUSSION MANAGEMENT MODEL

The Board of Education of the Amherst Central School District recognized that concussions and head injuries are commonly reported injuries in children and adolescents who participate in a sport and recreational activity and can have serious consequences if not managed carefully. Therefore, the District adopts the following policy to support the proper evaluation and management of head injuries.

While district staff will exercise reasonable care to protect students, head injuries may still occur. Physical education teachers, coaches, nurses and other appropriate staff will receive training to recognize the signs, symptoms and behaviors consistent with a concussion. Any student exhibiting those signs, symptoms or behaviors while participation in a school sponsored class, extracurricular activity, or interscholastic athletic activity shall be removed from the game or activity and be evaluated as soon as possible by an appropriate health care professional. The school nurse and athletic director will notify the student's parents or guardians and recommend appropriate monitoring to parents or guardians.

If a student sustains a concussion at a time other than when in a school sponsored activity, the district expects the parent/legal guardian to report the condition to the school nurse and athletic director so that the district can support the appropriate management of the condition.

The student shall not return to school or activity until authorized to do so by an appropriate health care professional. The school's chief medical officer will make the final decision on return to activity including physical education class and after-school sports. Any student who continues to have signs or symptoms upon return to activity must be removed from play and reevaluated by their healthcare provider.

All Amherst Athletes will take part in ImPact® testing (Immediate Post-Concussion Assessment and Cognitive Testing.)

Given the inherent complexities of concussion management, it is important to manage concussions on an individualized basis and to implement baseline testing and/or post injury neurocognitive testing whenever possible. Neurocognitive assessment can help to objectively evaluate the concussed athlete's post-injury condition and track recovery for safe return to play, thus preventing the cumulative effects of concussion. In fact, neurocognitive testing has been called the "cornerstone" of proper concussion management by an international panel of sports medicine experts.

