

## CONCUSSION IDENTIFICATION, MANAGEMENT AND RETURN- TO-PLAY

### NJSIAA Policy Statement

Developed by the Medical Advisory Board

According to The Centers for Disease Control and Prevention, at least 3 million sports and recreation related concussions occur in the United State each year. Concussions are a serious and growing public health concern, especially for students participating in contact sports. The competitive athletic culture of playing through pain or "toughing it out" puts student-athletes at serious risk of brain injury, disability, and death. 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. Currently, many student-athletes, school personnel including coaches, parents/guardians, and others involved in interscholastic athletics lack awareness about prevention, identification, and treatment of concussions as well as when it is most appropriate for the student-athlete to return-to-play.

The effects of concussion while not all preventable can be mitigated by prompt recognition and appropriate response. Therefore, the New Jersey' State Interscholastic Athletic Association concludes that a viable public education program focused on concussion education, prevention, and a uniform return-to-play policy is in the best interest of student-athletes throughout the State of New Jersey.

A concussion is a type of traumatic brain injury (TBI) caused by a direct or indirect blow to the head. The injury can range from mild-to-severe, and can disrupt the way the brain normally functions. A student-athlete does not need to lose consciousness to sustain a concussion. You might notice some of the symptoms right away other symptoms can show up within hours, days or weeks after the Injury.

#### NJSIAA POLICY STATEMENT:

It is our recommendation that NJSIAA member high schools in conjunction with the NJSIAA develop a policy related to concussions including forms and guidelines in order to educate student-athletes, school personnel, and parents/guardians about concussion. These forms shall include risks associated with the student-athlete continuing to play after sustaining a concussion.

Parents/guardians of a student-athlete, who participates in interscholastic athletics, shall receive on an annual basis, per each year the student-athlete participates, a concussion informational sheet. The student-athlete and their parents/guardians shall sign one copy of the informational sheet along with all pre-participation examination forms, acknowledging the receipt of this information. These forms are to be given to the proper authorities in the school district prior to the student-athlete initiating involvement in athletics. Informational sheets and pre-participation examination forms shall be forwarded to the office of the Principal or their designate for the district. Failure to comply with the provision of this shall preclude the student-athlete from participating in athletics related to the desired sport.

The NJSIAA recognizes that a majority of member schools employ the services of an athletic trainer. As health care providers who work under the supervision of a licensed physician, athletic trainers serve as an extension of the physician, and play key role in a concussion education and management program. Schools that employ athletic trainers should ensure they play a central role in the school's concussion education and management program.

**ANNUAL TRAINING RELATED TO CONCUSSION:**

NJSIAA member high schools shall ensure that student-athletes, coaches, athletic trainers, and physicians employed by the school district and show proof of satisfactory completion of that training. Officials should receive annual training from their chapters. Concussion training will be applicable towards certified continuing education requirements.

**RETURN-TO-PLAY GUIDELINES:**

NJSIAA member high schools that partake in interscholastic athletics shall develop a written plan of policy to address incidents of suspected or actual concussion among participants that are involved in the district programs. A student-athlete who is suspected of sustaining or who has sustained a concussion and/or has become unconscious during an athletic event shall not return-to-play until (s)he meets all of the following criteria:

1. Immediate removal from play and no return-to-play that day.
2. Medical evaluation to determine the presence/absence of concussion.
3. It is recommended that the student-athlete diagnosed with a concussion complete a symptom-free week initiated on the first asymptomatic day before initiating a graduated return-to-play exercise protocol. The student-athlete must be monitored during this time period for any reoccurrence of concussion symptoms.

4. If the student-athlete exhibits a re-emergence of any post-concussion signs or symptoms once they return-to-play, they will be removed from exertional maneuvers and return to his/her primary care physician or the team doctor for reevaluation.
5. If concussion symptoms reoccur during the graduated return-to-play exercise protocol, the student-athlete will return to the previous level of activity that caused no symptoms and then advance as tolerated.
6. Utilization of available tools such as symptom checklists, baseline and balance testing are suggested.

**POSSIBLE SIGNS AND SYMPTOMS OF CONCUSSION:**

Signs observed (a member of the coaching staff, athletic trainer, and/or physician) include but are not limited to:

1. Appears dazed, stunned, or disoriented.
2. Forgets plays or demonstrates short-term memory difficulties (e.g. is unsure of the game, score, or opponent)t.
3. Exhibits difficulties with balance or coordination.
4. Answers questions slowly or inaccurately.
5. Loses consciousness.
6. Demonstrates behavior or personality changes.
7. Is unable to recall events prior to or after the hit.

Symptoms reported by the student-athlete to a member of the coaching staff, athletic trainer, and/or physician include but are not limited to:

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 of sluggishness or fogginess.
7. Difficulty with concentration, short-term memory, and/or confusion.
8. Irritability or agitation.
9. Depression or anxiety.
10. Sleep disturbance.

**GRADUATED RETURN-TO-PLAY EXERCISE PROTOCOL:**

Step 1: No activity, complete physical and cognitive rest. The objective of this step is recovery.

- Step 2: Light aerobic exercise, which includes walking, swimming or stationary cycling, keeping the intensity < 70 maximum percentage heart rate; no resistance training. The objective of this step is increased heart rate.
- Step 3: Sport-specific exercise including skating, and/or running drills; no head impact activities. The objective of this step is to add movement.
- Step 4: Non-contact training drills involving progression to more complex training drills (e.g. passing drills). The student-athlete may initiate progressive resistance training.
- Step 5: Following medical clearance, participation in normal training activities. The objective of this step is to restore confidence and assess functional skills by the coaching staff.
- Step 6: Return to play involving normal exertional or game activity.

Reference: Consensus Statement on Concussion in Sports, 3<sup>rd</sup> International Conference on Concussion in Sport held in Zurich, November 2008. *Clinical Journal of Sport Medicine*, Volume 19, No.3 May 2009, pp. 185-200.

#### FINAL STATEMENTS:

The NJSIAA recognizes that although outside of our purview, student-athletes must also return to the classroom post-concussion. NJSIAA member high schools shall recognize that the aforementioned signs and symptoms of concussion also impact the student-athlete in their academic pursuits which can cause a deleterious effect on their ability to function in the classroom, learn new material, complete homework and study for tests. Parents and guardians should also be aware that driving may be impaired during the post-concussion period.

This NJSIAA policy is a dynamic document which will be altered or amended as new clinical research becomes available.

## KEEP THIS PAGE FOR YOUR RECORDS

### Concussion Information

Possible Concussion Symptoms May Include:

Headache. ~nausea. neck pain. balance problems or dizziness. double vision, sensitivity to light or noise. ringing in the ears. feeling foggy or groggy, concentration or memory problems, or confusion.

Parents should be aware of the following in the first 24 hours:

- Do not leave your child alone for long periods of time
- Avoid pain medicine unless your physician has cleared it: then use only an acetaminophen product
- Avoid excessive eating or fluid intake
- Avoid ~bright, loud noisy environments
- Look for change in normal sleeping pattern (sleeps more than usual or cannot sleep).
- Avoid excessive visual, mental and physical activity
- Be aware of changes or signs/symptoms which have gotten worse
- Talk to your child's coach or certified athletic trainer regularly
- If you have any doubts, seek medical attention immediately

Parents: the following information is designed to assist you deal with your child's recent head trauma. It should not replace medical attention. If you have any doubts, seek medical attention. Any head, face or jaw injury has the potential to be dangerous. The danger may not appear immediately. The first 24 hours are vital to determine possible severity.

-If any of the following symptoms appear, the athlete should be taken to the hospital or family physician immediately

-Severe or increasing headache  
-Inability to arouse or awaken the athlete  
-Pupils of unequal size  
-Can't recognize people or places  
-Blurred or double vision  
-Increased confusion or irritability

-Convulsions  
-Repeated vomiting  
-Numbness or lack of control of arms or legs  
-Slurred speech  
-Neck pain  
-Unusual behavioral changes