

## **Princeton Day School Student Athlete Concussion Management Program**

Medical management of concussions/traumatic brain injury (TBI) continues to evolve. Recently, there has been a significant amount of new research regarding sports-related concussions in high school athletes, but TBI also occurs in non-athletic settings. According to the CDC, recent data shows, that on average, approximately 1.7 million people sustain a traumatic brain injury annually. New Jersey Legislation (P.L.2010, Chapter 94) )N.J.S.A. 18A:40-41.4) requires each school district, charter, and non-public school who 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 school concussion management program will incorporate the following:

- 1) Education about concussions for athletes, coaches, school personnel, and parents;
- 2) Procedures for staff to follow in managing concussions, and
- 3) School policy as it pertains to return to play/academics issues following a concussion.

The purpose of this program is to provide the tools and assessment procedures for a safe return to activity/academic instruction for all students following a concussion. In order to effectively and consistently manage these injuries, procedures have been developed to aid in insuring that affected students are identified, evaluated and referred appropriately for medical care, receive appropriate follow-up evaluations during school and are recovered prior to returning to full athletic and academic activities.

This program will be reviewed and updated annually

A copy of the NJ Model Concussion Policy developed in May 2011 can be found at the NJ Department of Education Website:

<http://www.state.nj.us/education/aps/cccs/chpe/concussions/>

PDS has purchased and utilizes a computer-based neurocognitive testing program called IMPACT. Each student athlete starting at grade 6 is entered into the system via a baseline test. The baseline is to be re-taken every 2 years. A student who does sustain a diagnosed concussion will eventually take a post-concussion test when asymptomatic. The results will then be compared to the previously taken baseline.

**Education and Training materials for school staff, personnel, parents, and students:**

*Concussion in Sports What You Need to Know* by the National Foundation of State High Schools is a free online course that takes about 30-45 minutes to complete. A course certificate can be printed out when completed. This can be found at:

<http://www.nfhslern.com/index.aspx>

Reviewing the following CDC and other websites is recommended:

Concussion in Sports

<http://www.cdc.gov/concussion/sports/index.html>

Guide for Coaches

[http://www.cdc.gov/concussion/pdf/Coach Guide-a.pdf](http://www.cdc.gov/concussion/pdf/Coach%20Guide-a.pdf)

Concussion Signs and Symptoms Checklist

[http://cdc.gov/concussion/pdf/TBI schools checklist 508-a.pdf](http://cdc.gov/concussion/pdf/TBI%20schools%20checklist%20508-a.pdf)

CDC Videos, Podcasts, and Other Media

<http://www.cdc.gov/concussion/sports/resources.html>

Heads Up to Schools: Know Your Concussion ABC's

<http://www.cdc.gov/concussion/HeadsUp/schools.html>

Concussion in the Classroom Support Materials provided by NYSPHSAA

<http://www.nysphsaa.org/safety/>

Athletic Trainers Society of New Jersey

<http://www.atsnj.org>

*Keeping Quiet Can Keep You Out of the Game* video

<http://www.youtube.com/watch?v=IqZDbk3M40>

## **Head Injury/Concussion Protocol for PDS Student Athletes**

All head injuries or suspected concussions that happen to PDS student athletes at any time must be reported by the injured student athlete as soon as possible to the athletic trainer. If the athletic trainer is not available and it is during school hours, the student athlete must report the injury to the school nurse.

If, at any time, a coach suspects a student athlete may have sustained a head injury, the student athlete must immediately be removed from activity and the athletic trainer notified.

If a student athlete reports a head injury to the school nurse during school hours, the school nurse will notify the athletic trainer as soon as possible.

In severe cases, such as that which result in loss of consciousness during an away event, the head coach must report the injury to the athletic trainer as soon as possible.

Student athletes who have a suspected or diagnosed concussion are not to take part in ANY physical activity until cleared by the athletic training staff.

In all cases of suspected concussion by the athletic trainer, the student athlete must be seen by his or her family physician for evaluation and diagnosis. The student athlete will be sent with the PDS return to play form that should be signed by the physician and returned to the athletic trainer.

The primary treatment for concussions and concussion-like symptoms is cognitive rest. It is highly recommended that students stay home, sleep or rest and refrain from TV, computer use or any other activities that exacerbate their symptoms. Early recognition and cognitive rest can help aid in recovery.

Student athletes who have a suspected or diagnosed concussion may or may not have cognitive deficiencies that result in diminished school work. If the student athlete has problems with school work, the school nurse and learning specialist must be notified. The student athlete will have to see his or her family physician to be evaluated and diagnosed. Academic accommodations will be made where needed with a physician's note.

The student athlete with a diagnosed concussion must report to the Athletic Trainers office daily to record their symptoms. If this is not feasible, the student athlete must report the first day he or she is asymptomatic.

## **What is a concussion?**

A concussion is a brain injury that can be caused by a blow to the head or body that disrupts normal functioning of the brain. Concussions are a type of Traumatic Brain Injury (TBI), which can range from mild to severe and can disrupt the way the brain normally functions. Concussions can cause significant and sustained neuropsychological impairment affecting problem solving, planning, memory, attention, concentration, and behavior.

## **Examples of Signs of Concussion (Observed by coach, athletic trainer, parent/guardian)**

- \*Appears dazed or stunned
- \*Forgets plays or demonstrates short term memory difficulties (e.g. unsure of game, opponent)
- \*Exhibits difficulties with balance, coordination, concentration, and attention
- \*Answers questions slowly or inaccurately
- \*Demonstrates behavior or personality changes
- \*Is unable to recall events prior to or after the hit or fall

## **Examples of Symptoms of Concussion (Reported by Student-Athlete)**

- |                                     |   |
|-------------------------------------|---|
| *Headache                           | *Sensitivity to light/sound                       |
| *Nausea/vomiting                    | *Feeling of sluggishness or fogginess             |
| *Balance problems or dizziness      | *Difficulty with concentration, short term memory |
| *Double vision or changes in vision | *Confusion  |

**PDS Student Athlete Return to Play Protocol:**

Once a student athlete sustains a head injury which is then diagnosed by a physician as a concussion, the student athlete will be put into the Return to Play Protocol.

**Step 1**

Once the student athlete is asymptomatic, he or she will take a post-concussion IMPACT test. The results of this test will be compared to the baseline test the student athlete took earlier at the beginning of the school year. If results are problem free and the student athlete has no recurrence of any symptoms for 24 hours he or she will then progress to step 2.

**Step 2**

Exertional test. This will be done on a treadmill or stationary bike as administered by the Athletic Trainer. If student athlete does not experience any symptoms for 24 hours he or she will progress to step 3.

**Step 3**

Modified/non-contact practice with team. This can consist of jogging, running, skill drills. If student athlete does not experience any symptoms for 24 hours he or she will progress to step 4.

**Step 4**

Full contact practice with team with no restrictions. If student athlete does not experience any symptoms for 24 hours he or she will progress to step 5.

**Step 5**

Full return to play with no restrictions.

If at any time during this return to play protocol the student athlete develops symptoms he or she will revert back to previous step and then progress as stated above.