

# **Oregon Episcopal School**

## **Protocol and Procedures for Concussion Management**

Concussion is a mild traumatic brain injury. (1) Oregon Episcopal School has developed this protocol to educate school personnel, parents and students about appropriate concussion management. This protocol outlines procedures to follow in managing concussions and outlines school policy as it pertains to return to physical activity and return-to-learning following a concussion.

A safe return-to-activity protocol is important following any injury, but it is essential after a concussion. The following procedures have been developed to ensure that students with concussions are identified, treated and referred appropriately. Consistent application of this protocol will ensure students receive appropriate follow-up medical care and academic accommodations with the goal that students are fully recovered before returning to full academic and physical activity. This protocol reflects current concussion research and will be updated as research advances. All athletic department staff and coaches will be required to attend a yearly in-service meeting to preview procedures for managing sports related concussions.

This protocol has been developed in consultation with OHSU Sports Medicine as well as based on information from Oregon School Activities Association (OSAA), Oregon Concussion and Management Program (OCAMP) and the Center for Disease Control and Prevention (CDC).

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### **I. Pre-Sports Participation Interventions**

1. All seventh, ninth, and eleventh grade students at Oregon Episcopal School will take a baseline ImPACT (3) test prior to participation in sports.
2. Student athletes and parents will read and sign the OSAA waiver regarding risks associated with head injury that will be kept on file with the Athletic Department.
3. OES Athletic Trainer and coaches will be required to take the OSAA Concussion Certification module review and follow OES Head Injury Protocol.

### **II. Recognizing concussion**

These signs and symptoms following a witnessed, known or suspected blow to the head or body are indicative of a probable concussion.

Any student who exhibits signs, symptoms or behaviors consistent with a concussion must be removed immediately from the competition, practice, class or activity and the student is not allowed to return to physical activity until evaluated by qualified medical personnel.

#### **A. Common signs and symptoms of concussion**

- I. Signs (observed by others):
  - Appears dazed or stunned
  - Confusion (about assignment, plays, etc.)
  - Short term memory deficit
  - Moves clumsily (altered coordination)

- Balance problems
  - Personality change-irritability
  - Responds slowly to questions
  - Forgets events prior to hit or after the hit
  - Swelling or wound on the head
  - Loss of consciousness (any duration)
2. Symptoms (reported by student):
- Headache
  - Fatigue
  - Nausea or vomiting
  - Double vision, blurry vision
  - Sensitive to light or noise
  - Feels sluggish
  - Feels “foggy”
  - Problems concentrating
  - Problems remembering

### **III. Guidelines and procedures for coaches and Athletic Trainer:**

In the event of a suspected head injury OES will follow the steps outlined by OSAA. (2)

#### RECOGNIZE, REMOVE, REFER

##### A. Recognize Traumatic Brain Injury (TBI)

Basic assessment of initial symptoms should be performed to determine cognitive deficits.

The student may return to play if sideline evaluation by a team doctor or Athletic Trainer indicates no symptoms are present.

##### B. Remove from activity

If a coach suspects an athlete has sustained a head injury the athlete should be removed from activity. The athlete will not return to athletic play that day.

##### C. Refer the athlete for medical evaluation and care:

1. Coach will call EMS if situation indicates a medical emergency.
2. Coach is responsible to contact parents to inform them about the injury.
3. Coaches will report all head injuries to OES Athletic Trainer (AT/R), as soon as possible. If on campus at time of injury call Athletic Trainer for a sideline evaluation.
4. If while at an away contest the host site has an AT available coaches should seek their assistance.
5. In the event that an athlete’s parents or designee cannot be reached the athlete will stay with the coach or a designated adult.
6. Athletes with suspected head injuries should not be permitted to drive home.
7. Any student who has initial symptoms but symptoms quickly resolve must be pulled from the game or activity and may not return to play that day.

#### Medical indications of Traumatic Brain Injury (TBI)

- I. If a student exhibits any of the following symptoms EMS should be called. EMS will determine the appropriate medical action and whether to recommend emergency transportation to an appropriate medical facility or if the situation can safely allow the parent to assume responsibility.
  1. deterioration of neurological function
  2. decreasing level of consciousness
  3. decrease or irregularity in respirations
  4. decrease or irregularity in pulse
  5. any signs or symptoms of associated injuries, spine or skull fracture, or bleeding
  6. mental status changes: lethargy, difficulty maintaining arousal, confusion or agitation

7. seizure activity

2. Any student who has incurred a potential head injury where symptoms are present but are not worsening are advised to contact their primary care provider or seek care at an appropriate medical facility on the day of the injury.

#### **IV. OES Concussion Management Team Roles**

When a concussion is suspected there are steps to be taken by parents and OES Concussion Management Team (CMT).

The OES Concussion Management Team consists of Athletic Trainer, Nurse and Academic Specialist. The team meets regularly to oversee student cases as well as overall implementation of concussion protocols. CMT reviews current medical research and practice related to traumatic brain injury.

Roles and Responsibilities of parents/guardians and CMT:

Parent:

1. Keep student home to monitor symptoms, provide rest and seek medical evaluation.
2. Seek medical evaluation within 24 - 48 hours.
3. Communicate with student's advisor and any member of the CMT.
4. Follow guidelines in OES Parent Concussion letter.

Athletic Trainer:

1. Gathers details of injury and incident report.
2. Provides home and follow-up care instructions.
3. Completes initial and follow-up assessments (SCAT, ImPACT)
4. Summarizes assessment results and communicates with parents and CMT.
5. Initiates Return To Play (RTP) procedure when applicable.
6. Instructs athlete and coaching staff verbally and in writing regarding permitted activities. These instructions will be updated frequently as the athlete progresses in recovery.
7. Once the athlete has progressed to unrestricted activity, the AT/R will notify the parents and coach in writing.

Nurse:

1. Communicates Parent information letter.
2. Provides physical/emotional support and respite for symptoms during the school day.
3. Provides medical referrals as needed and/or communicates with practitioners to coordinate care.
4. Receives and maintains medical records.

Academic Specialist:

1. Implements, communicates and manages academic accommodations.
2. Meets with student upon return to school to review accommodations.
3. Assists student, Advisor and teachers to use accommodations.
4. Facilitates return-to learn protocols.

#### **V. Return To Play (RTP) and Return To Learn (RTL) Procedures After Concussion:**

Return to competitive play or school activity is a process that requires input from several sources including medical, completion of the RTP protocol and demonstrated ability to participate in life and school activities. Progress is individualized and will be determined on a case-by-case basis. Factors that may affect progression include:

- a. Previous history of concussion

- b. Duration and type of symptoms
- c. Age of student
- d. Sport/activity in which the athlete participates.

The student must meet all of the following criteria in order to progress to activity:

1. Within normal range of baseline on post-concussion ImPACT testing AND
2. Have written clearance from primary care physician or concussion specialist AND
  - a. In few instances physician clearance may be waived if symptoms last less than one week, student has successfully completed RTP series, used minimal academic accommodation and has normal range of baseline ImPACT results.
3. Successful completion of the Return-to-Play sequence.

Graduated, Step-wise Return-to-Play and Learn Progression

OES follows the Step-Wise Return-to-Play protocol described below to guide a student's readiness for return to activity. A student may advance no more than one step per day.

Return to physical (athletic) activity, full academic participation, social and outside activity is a linked and graduated process that depends on symptom resolution and follows these steps adapted from OSAA.

1. No activity: Complete rest, both physical and cognitive, is beneficial for a few days. This includes staying home from school or limiting school hours and all outside and social activities. Academic accommodations may be implemented as homework and tasks requiring concentration and attention may worsen symptoms and delay recovery.

2. Light aerobic exercise: Walking or stationary bike at low intensity; no weight lifting or resistance training.

Before progressing to the next stage the student must be healthy enough to return to school full time. At this point students may begin to resume social and outside activities. Academic accommodations may be reduced or adjusted.

3. Sport-specific exercise: Sprinting, dribbling basketball or soccer; no helmet or equipment, no head impact activities.

4. Non-contact training: More complex drills in full equipment. Weight training or resistance training may begin.

5. Full contact practice: Participate in normal training activities. Academic accommodations will end.

6. Unrestricted Return-to-Participation/full competition.

Important Considerations:

1. Students can only progress one step per day - It may be appropriate for some students to remain at a level for 2 or more days based on re-evaluation.
2. If the athlete experiences post-concussion symptoms during any phase, the athlete should drop back to the previous asymptomatic step and resume the progression after 24 hours.

## **VI. Other Important Considerations Related to School Activity Participation:**

When a Brain Injury is suspected:

If the injury occurs on a school sponsored event, OES concussion protocols take precedence and may supersede the wishes of the student or adult who may prefer that the student continue in the activity.

If the injury occurs in a non school sponsored event but affects a student's participation in school life, OES concussion protocols take precedence for all school-sponsored events. A club-sport accident, car accident etc., may restrict a student's ability to participate in OES-sponsored events.

OES may compel a family to seek medical evaluation and/or for a student to undergo RTP sequence in order to have academic accommodations and/or participate in school-sponsored events. (ie winterim trips)

When a concussion is confirmed:

OES will generally follow the most conservative plan for returning a student to cognitive and physical activity.

OES will consider a doctor's advice when instituting or ending academic accommodations.

OES will consider a doctor's advice when a student requests to participate in school-sponsored activities when in the early stages of recovery.

OES protocols take precedence over all others for school-sponsored events.

If an injury is not sport related and academic accommodations are in place, school attendance, doctor recommendation and demonstration of symptoms will be considered when determining the duration of academic accommodations.

When a student has concussion related academic or physical accommodations for school or is not yet attending school full time they may be restricted from participation in school-sponsored events.

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References:

- (1) <http://www.nlm.nih.gov/medlineplus/traumaticbraininjury.html> Definition of concussion
- (2) <http://www.osaa.org/health-safety> Documents for Concussions and Concussion Management
- (3) <https://www.impacttest.com/products/> pre and post-concussion evaluation test

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Br J Sports Med 2013;47:250-258 doi:10.1136/bjsports-2013-092313  
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[1] Broglio, Steven P., et al. National Athletic Trainers' Association Position Statement: Management of Sport-Related Concussion. Journal of Athletic Training 2014;49(2):245-265 doi: 10.4085/1062-6050-49.1.07.  
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