

Interboro Athletics Concussion Management Procedure

CONCUSSIONS

Definition of a concussion:

Concussion is defined as a complex pathophysiological process affecting the brain, induced by traumatic biomechanical forces. Several common features that incorporate clinical, pathologic and biomechanical injury constructs that may be utilized in defining the nature of a concussive head injury include:

- Concussion may be caused either by a direct blow to the head, face, neck or elsewhere on the body with an “impulsive” force transmitted to the head. Concussion typically results in the rapid onset of short lived impairment of neurologic function that resolves spontaneously.
- Concussion may result in neuropathological changes, but the acute clinical symptoms largely reflect a functional disturbance rather than a structural injury.
- Concussion results in a graded set of clinical symptoms that may or may not involve loss of consciousness. Resolution of the clinical and cognitive symptoms typically follows a sequential course; however, it is important to note that, in a small percentage of cases, post-concussive symptoms may be prolonged.
- No abnormality on standard structural neuroimaging studies is seen in concussion.

Symptoms and Signs of Acute Concussion:

The suspected diagnosis of concussion can include one or more of the following clinical domains:

- Somatic (e.g., headache), cognitive (e.g., feeling like in a fog) and/or emotional symptoms (e.g., lability)
- Physical signs (e.g., loss of consciousness, amnesia)
- Behavioral changes (e.g., irritability)
- Cognitive impairment (e.g., slowed reaction times)
- Sleep disturbance (e.g., drowsiness)

If any one or more of these components is present, a concussion should be suspected, and the appropriate management strategy instituted.

CONCUSSION ASSESSMENT

On-field or Sideline Evaluation of Acute Concussion:

When an athlete presents with a potential head and/or neck injury the athletic trainers will assess the student-athlete immediately.

If an athletic trainer is not readily present at the time of the incident, the coaches will contact the athletic trainer(s) via cell phone or radio immediately.

The coach will keep the athlete calm and in the position they were found.

OR

If the athlete is still upright, the athlete should be sat on the bench and monitored by an assistant coach or fellow athlete until the athletic trainer(s) arrives on the scene.

The following procedures will be utilized:

- When a player shows ANY features of a concussion:
 - The player will be medically evaluated onsite using standard emergency management principles, and particular attention should be given to excluding a cervical spine injury.
 - The appropriate disposition of the player must be determined by the treating healthcare provider (Athletic trainer, team physician, primary care physician) in a timely manner.
- If no healthcare provider is available, the player should be safely removed from practice or play and an urgent referral to an athletic trainer, physician, or emergency department arranged.
- The player will not be left alone following the injury, and serial monitoring for deterioration is essential over the initial few hours following injury.

A player with diagnosed concussion will not be allowed to return to play on the day of injury.

In the event that a team is without an athletic trainer the coaching staff will make every effort to contact the supervising certified athletic trainer for their sport or the head certified athletic trainer for consultation. If the certified athletic trainer is not available, the coaching staff has the option of taking the student-athlete to a local emergency department. Any documentation relative to the emergency department visit will be presented to the team's certified athletic trainer upon arrival on campus. The student-athlete **must** follow –up with the certified athletic training staff at the next available opportunity for assessment and management.

CONCUSSION MANAGEMENT

The student-athlete's parents will be contacted to make arrangements to have the student-athlete transported home. The student-athlete's parents will be contacted and/or provided with information to utilize in case of concern or emergency.

During the phase of recovery, if the student-athlete is reporting an increase in symptoms with scholastic work, the Interboro School District Guidance Counselors will be contacted on the student-athlete's behalf. The supervising certified athletic trainer or the head athletic trainer will make the initial contact with the Guidance Counselor via e-mail. The student will be responsible for contacting the Guidance Counselor and requesting assistance.

Graduated Return to Play Protocol

Return to play (RTP) protocol following a concussion follows a stepwise process as outlined below. With this stepwise progression, the athlete should continue to proceed to the next level if asymptomatic at the current level. Generally, each step should take 24 hours so that an athlete would take approximately one week to proceed through the full rehabilitation protocol once they are asymptomatic at rest and with provocative exercise. If any post-concussion symptoms occur while in the stepwise program, then the patient should drop back to the previous asymptomatic level and try to progress again after a further 24-hour period of rest has passed.

An important consideration in RTP is that concussed athletes should not only be symptom free but also should not be taking any pharmacological agents/medications that may mask or modify the symptoms of concussion.

Per PIAA law, athletes need medical clearance by an M.D. or D.O. and to complete the Return to Play Protocol with the Athletic Trainers.

Graduated Return to Play Progressions

1. **No activity**

Complete physical and cognitive rest.

2. **Light aerobic exercise**

Walking, swimming or stationary cycling keeping intensity ,70% MPMR; no resistance training Increase HR (2 days of stationary cycling).

3. **Sport-specific exercise**

Skating drills in ice hockey, running drills in soccer; no head impact activities. Add movement (2 days of running drills).

4. **Non-contact training drills**

Progression to more complex training drills, e.g., passing drills in football and ice hockey; may start progressive resistance training. Exercise, coordination, and cognitive load.

5. **Full contact practice**

Participate in normal training activities. Restore confidence and assess functional skills by coaching staff.

****Student-athletes will not be returned to a GAME situation for stage 5, if stage 5 is game day the athlete will be permitted to warm-up with the team but not participate in the game. The student-athlete must have a full practice prior to final clearance. ****

6. **Return to play Normal game play**