

Athletico Recommendations for Concussion Management

This document represents the best practices and recommendations for Athletico Athletic Trainers in regards to concussion management. It is intended that this document is used as a guide to help support Athletico Athletic Trainers in the management of concussions.

Education

- It is important for Athletico Athletic Trainers to recognize that there is no equipment or activity that can completely prevent concussion.
 - However, Athletico Athletic Trainers can assist affiliates with correct fitting of helmets and other protective equipment to help mitigate the risk of a possible concussion.
- Athletico Athletic Trainers are encouraged to work with affiliate administration to ensure proper education for athletes, parents, coaches, and faculty surrounding concussions. This includes basic concussion information and academic considerations after injury.
 - Successful education resources that affiliates have used in the past are:
 - [Centers for Disease Control](#)
 - [National Federation of State High School Associations](#)
- Athletico Athletic Trainers are encouraged to work with the affiliate and team physician to ensure they are in accordance with their respective state concussion law (Appendix A) as it pertains to:
 - Education of parents, coaches, athletes, etc.
 - Removal and return to play of athletes with a suspected concussion
- Athletico has resources that an Athletico Athletic Trainer can utilize at their affiliate for educational purposes. Contact your Athletic Training Manager for more information on setting up a concussion presentation.
- Team physicians may also be interested in presenting concussion information to affiliates.
- It is important that Athletico Athletic Trainers utilize proper terminology when discussing concussions by avoiding the terms “ding”, “bell ringer”, etc.
- Athletico Athletic Trainers should encourage educators and administrators to understand the effect that concussions have on students in the classroom.
- It is recommended that the Athletico Athletic Trainer has a proactive conversation with the team physician and athletic director/affiliate contact regarding proper procedures when working with a parent or guardian who wants their child to return to participation before receiving the proper medical clearance.

Baseline Testing

- It is recommended that Athletico Athletic Trainers utilize a method of baseline testing for their athletes/participants.
- The following are examples of baselines test that can be utilized:
 - [ImPACT](#) (performed every two years)
 - [SportsBrain](#) (performed every year)
 - [XLNTbrain](#) (performed every year)
 - [Concussion Vital Signs](#) (performed every year)
 - [Sport Concussion Assessment Tool, 5th Edition \(SCAT5\)](#) (performed every year)
 - [King-Devick](#) (performed every year)
- Athletico provides Athletic Trainers with the SCAT5 to complete baseline testing of their athletes. This includes the Standardized Assessment of Concussion (SAC), the Graded Symptom Checklist (GSC), and the Modified Balance Error Scoring System (mBESS).

Evaluation

Below is the recommended guideline for Athletico Athletic Trainers when handling the evaluation of a suspected concussion:

- Any athlete/participant that exhibits the signs or symptoms of concussion after suffering a blow to the head, face, neck, or a hit to the body that transmits an impulsive force to the head should be removed from play for further evaluation.
- Initial evaluation should rule out all serious head and spinal injuries through the evaluation of motor movement and airway, breathing, and circulation (ABC's). Vital signs should be monitored to evaluate for more serious head injury.
- Red Flags for Emergency Referral
 - Loss of consciousness (even if only for a brief moment of time)
 - Suspected cervical spine injury
 - Unequal pupil size
 - Is drowsy or cannot be awakened
 - A headache with increasing intensity
 - Any reported weakness or numbness
 - Repeated vomiting
 - Convulsions or seizures
 - Slurred speech
 - Becomes increasingly confused, restless, or agitated
- Once the athlete/participant is cleared of any serious head/neck injury, further evaluation utilizing SCAT5 or another appropriate evaluation method should then take place.
 - Example: SCAT5
 - Symptom Checklist
 - Cognitive Screening: Immediate Memory, Concentration
 - Neurological Screening: Balance Examination
 - Delayed Recall

**It is recommended that Athletico Athletic Trainers make a best effort to evaluate a concussion away from busy sidelines.*
- If the Athletico Athletic Trainer does not suspect a concussion, the athlete/participant should be functionally tested before RTP. This should include basic aerobic and sport specific activities that increase the heart rate of the athlete/participant. If any concussion signs or symptoms return with this functional testing, the athlete/participant should not return to athletic activity that day.

**If the Athletico Athletic Trainer does not suspect a concussion and the athlete/participant returns to play, they should continue to be monitored throughout the duration of the game/practice for any return of concussion symptoms. Any reoccurrence of signs or symptoms warrants removal from play.*
- If a concussion is suspected, the athlete/participant is removed from play and will not be allowed to return to the game/practice that day.
 - It is Athletico's recommendation that any athlete/participant with a suspected concussion be removed from play and receive further evaluation by a physician familiar with concussion evaluation and management.
 - It is recommended that the individual not be left alone and be monitored for deterioration of their condition over the initial few hours after injury. Any worsening of symptoms or overall condition should be referred to the emergency department for immediate evaluation.

Documentation

- The Athletico Athletic Trainer should complete an Athletico Injury Report for any athlete/participant that is evaluated for a suspected concussion.
- Additionally, concussion specific evaluation forms (SCAT5 or other concussion assessment tool) should be completed in their entirety.
- All concussion documentation should be completed as soon as possible after the evaluation is performed. Ideally, this is within 12 hours (or sooner) after the injury evaluation has been completed.
- Documentation for concussion injuries sustained at an Athletico Athletic Trainer's affiliate should be kept in a secure location at the affiliate.
- Documentation for concussion injuries sustained at a special event coverage should be scanned and emailed to the Field AT Inbox (Field_ATs@athletico.com) within 48 hours of the event or as otherwise noted in the coverage details.

Injury Communication

Once a concussion is suspected and the athlete/participant is removed from play, the following talking points should be discussed with each of the following individuals:

- **Athlete/Participant**
 - Explanation of what a concussion is;
 - Review the [Concussion Information Sheet](#) and [Concussion Physician Letter](#) to be sent home;
 - Review RTL and RTP protocol; and
 - Inform them that the school nurse, academic advisor, and/or coach will be made aware of their injury.
- **Parent/Guardian:** *contacted as soon as possible after the injury evaluation*
 - Explanation of what a concussion is and review of proper care instructions;
 - Review the [Concussion Information Sheet](#) and [Concussion Physician Letter](#) that will be sent home with the athlete/participant;
 - Review RTL and RTP protocol; and
 - If their athlete/participant is a student, inform them that the school nurse, academic advisor, and/or coach will be made aware of the athlete/participant injury.
- **Coach**
 - Immediately notified of the athlete/participant's status and that they will not be returning to athletic participation today.
 - Coach should be kept up to date on athlete/participant's status and what activities they can/cannot perform during the different stages of the RTP protocol.
- **Physician**
 - Athletico provides a [Concussion Physician Letter](#) that can be filled out by the Athletico Athletic Trainer, sent with the athlete/participant, and returned to confirm treatment plan pertaining to both RTL and RTP.
- **School Personnel (If applicable dependent on assigned affiliate)**
 - Example email communication to school personnel
"ATHLETE/PARTICIPANT NAME sustained a suspected concussion during practice/game today. The parents and athlete/participant were given educational material regarding concussions, and have been referred to a physician. Athlete/participant should be held out of all Physical Education classes until further notice. Please inform the faculty

of ATHLETE/PARTICIPANT'S NAME injury and ask that academic accommodations be made if needed per the established Return-to-Learn Protocol.”

- *It is not the Athletico Athletic Trainer's responsibility to set forth the specific academic accommodations that the athlete/participant may need, but they can advise that considerations need to be made.

Physician Referral

- Athletico recommends that any athlete/participant who sustains a concussion be evaluated by a licensed physician who has experience in concussion management.
- The 2014 National Athletic Trainers' Association (NATA) [Position Statement on Management of Sport Concussion](#) states situations where athletes/participants should be sent to the physician immediately after a mild traumatic brain injury.

Post-Injury Procedures

- It is recommended that the athlete/participant report daily to the Athletico Athletic Trainer to have symptoms documented on the [Graded Symptoms Checklist](#) provided by Athletico.
- Athletico Athletic Trainer should provide daily updates to parents, coaches, and appropriate school personnel regarding the athlete/participant's progress.
- Progress throughout the concussion can be documented on the Athletico [Concussion Progress Sheet](#).
- Post-Injury Testing
 - If affiliates have performed baseline neurocognitive tests, it is recommended that the Athletico Athletic Trainer discuss with their athletic director/affiliate contact and team physician when they prefer to have the post injury tests performed.
 - This policy should be put in place, utilized consistently by the affiliate, and documented in the affiliate's concussion management plan.
 - The treating physician should be contacted to see if they are familiar with reviewing the specific test results and if they would like a post injury test to be completed.

Return to Learn (RTL)

- Athlete/participants suffering from concussion symptoms may need work/academic accommodations to ensure proper recovery.
- Continuing work tasks or schoolwork that result in an increase in symptoms may delay the recovery for the athlete/participant.
- It is recommended that each school have a plan in place related to academic considerations that allow accommodations to be made on a case-by-case basis under the recommendation of the treating physician.
- It is the school/affiliate/organization's responsibility to develop this RTL protocol. The Athletico Athletic Trainer's role is to provide guidance in this task.
- The table on the following page from the [5th International Consensus on Concussion in Sport](#) gives a general outline from which a RTL protocol can be based.

Table 2 Graduated return-to-school strategy

Stage	Aim	Activity	Goal of each step
1	Daily activities at home that do not give the child symptoms	Typical activities of the child during the day as long as they do not increase symptoms (eg, reading, texting, screen time). Start with 5–15 min at a time and gradually build up	Gradual return to typical activities
2	School activities	Homework, reading or other cognitive activities outside of the classroom	Increase tolerance to cognitive work
3	Return to school part-time	Gradual introduction of schoolwork. May need to start with a partial school day or with increased breaks during the day	Increase academic activities
4	Return to school full time	Gradually progress school activities until a full day can be tolerated	Return to full academic activities and catch up on missed work

Return to Participation (RTP)

- No athlete/participant should return to participation the same day as a concussive event.
- In all state platforms, it is recommended that Athletico Athletic Trainers work under the direction of a physician for the RTP of concussed athlete/participants.
- Athlete/participant should not begin a RTP protocol until a signed physician letter is returned stating the treatment plan.
- It is recommended that the athlete/participant have a full academic workload before being released back to full athletic participation.
- Athlete/participant should also be symptom free and no longer taking any medication that could mask the presence of concussion symptoms before beginning a RTP protocol.
- It is recommended athlete/participants return to participation utilizing a step-wise symptom-limited program such as the one created by the [5th International Consensus on Concussion in Sport](#) in the chart below.

Table 1 Graduated return-to-sport (RTS) strategy

Stage	Aim	Activity	Goal of each step
1	Symptom-limited activity	Daily activities that do not provoke symptoms	Gradual reintroduction of work/school activities
2	Light aerobic exercise	Walking or stationary cycling at slow to medium pace. No resistance training	Increase heart rate
3	Sport-specific exercise	Running or skating drills. No head impact activities	Add movement
4	Non-contact training drills	Harder training drills, eg, passing drills. May start progressive resistance training	Exercise, coordination and increased thinking
5	Full contact practice	Following medical clearance, participate in normal training activities	Restore confidence and assess functional skills by coaching staff
6	Return to sport	Normal game play	

NOTE: An initial period of 24–48 hours of both relative physical rest and cognitive rest is recommended before beginning the RTS progression.

There should be at least 24 hours (or longer) for each step of the progression. If any symptoms worsen during exercise, the athlete should go back to the previous step.

Resistance training should be added only in the later stages (stage 3 or 4 at the earliest). If symptoms are persistent (eg, more than 10–14 days in adults or more than 1 month in children), the athlete should be referred to a healthcare professional who is an expert in the management of concussion.

Concussion Protocol Development

- All affiliates should have a concussion protocol in place. This protocol must be approved by the affiliate and should include all of the policies and procedures that have been discussed.
- While Athletico may assist with the creation of this protocol, it is ultimately the responsibility of the affiliate to create this document.

- Important items to include:
 - Communication procedures
 - What medical personnel has final decision rights
 - Baseline and post-injury testing procedures (if utilized at the affiliate)
 - Evaluation tools and procedure
 - RTP and RTL protocols
 - Concussion education
- If an Athletico Athletic Trainer has additional questions, they are encouraged to contact Athletico Athletic Training Management with questions about concussion protocol development and updates that may need to be made at their affiliate.

Special Event Coverage

- All athlete/participants suspected of a concussion at a special event coverage should undergo the same Evaluation, Injury Communication, and Documentation procedures as outlined above.
- It is recommended that Athletico Athletic Trainers follow up with any concussed athlete/participant that they assess at an event coverage via phone within 24-48 hours in order to monitor the athlete/participant's condition and assist with proper physician referral.
- When covering an event with adult athlete/participants (18+ years old), it is recommended that concussion treatment is carefully discussed should a suspected concussion occur.
 - The Athletico Athletic Trainer should advise the athlete/participant that it is not recommended they continue to play or drive from the event.
 - These conversations should be properly documented on the Athletico Injury Report and a signature from the adult athlete/participant should be obtained should they choose not to follow the recommendations of the Athletico Athletic Trainer.

Physical Therapy

- When an athlete/participant continues to have symptoms beyond normal recovery (approximately 7-10 days for adults and 2-3 weeks for adolescents) or continues to present with suspected signs of vestibular system or ocular motor impairments, the Athletico Athletic Trainer is encouraged to discuss referral to a Vestibular Therapy specialist with the athlete/participant, parent/guardian, and physician.
- It is Athletico's Best Practice to refer any athlete/participant presenting with headache or neck pain in which the cervical spine is suspected in being involved to a physical therapist to focus on manual therapy and treatment of the cervical spine. This treatment option can be discussed with the athlete/participant, parent/guardian, and physician in order to quickly resolve these symptoms that could hinder the athlete/participant's recovery back to school and sport.
- Physical therapy treatment will allow the athlete/participant an opportunity for more one-on-one monitoring with a physical therapist and progression throughout all phases, including oculo-motor, vestibular challenges, and dual- and tri-tasking.
- Symptoms of Cervical Spine Dysfunction
 - Restricted or symptomatic cervical ROM
 - Headaches with increasing intensity throughout the day
 - Lightheadedness
- Symptoms of Vestibular-Ocular Dysfunction
 - Feeling of rocking, swaying, or spinning (vertigo)
 - Difficulty in visually stimulating environments
 - Increased motion sickness
 - Difficulty with eye tracking or reading
 - Gait imbalance

- Symptoms of Autonomic Nervous System Dysfunction
 - Headache, nausea, dizziness with aerobic activities
 - More emotional or irritable

Additional Resources (click on links)

- [NATA Position Statement on Concussion](#)
- [5th International Consensus on Concussion in Sport](#)
- [National Federation of State High School Associations \(NFHS\) Concussion Guidelines](#)
- Centers for Disease Control (CDC)
 - [HEADS UP to Brain Injury Awareness](#)
 - [Concussion Guide for Coaches](#)
 - [A Fact Sheet for High School Sports Officials](#)
 - [Implementing Return to Play](#)
 - [Returning to School after a Concussion](#)

Athletico Documents (SharePoint → Departments → Athletic Training → Concussion Resources)

- [Concussion Information Sheet](#)
- [Graded Symptom Checklist](#)
- [Concussion Physician Letter](#)
- [Concussion Progress Sheet](#)
- [SCAT5](#)
- [Child SCAT5](#)

Appendix A

[State Specific Laws and High School Athletic Association Guidelines on Concussion](#)

SharePoint → Departments → Athletic Training → Concussion Resources

Please see the link above for state concussion laws and high school association guidelines for states in which Athletico clinics and affiliates are located.

Regardless of state law or high school athletic association guidelines, it is Athletico's best practice to involve a physician in an athlete's return to play decision following a concussion.

Appendix B

Commonly Used Terms/Abbreviations

BESS: Balance Error Scoring System

GCS: Glasgow Coma Scale

GSC: Graded Symptoms Checklist

ImPACT: Immediate Post-Concussion Assessment and Cognitive Testing

RTL: Return to Learn

RTP: Return to Play

SAC: Standard Assessment of Concussion

SCAT: Sport Concussion Assessment Tool