



Presbyterian College Sports Medicine Department

CONCUSSION / TRAUMATIC BRAIN INJURY PROTOCOL

INTRODUCTION

The Presbyterian College Sports Medicine Department recognizes and acknowledges that concussions or traumatic brain injuries (TBI) need immediate attention. The NCAA Executive Committee has developed a consistent, association-wide approach to Concussion Management. It is the responsibility of all student-athletes to report injuries and illnesses to their Athletic Trainer.

A concussion is defined as a generally short-lived impairment of neurological function brought on by a traumatic force applied to the head or body.

Symptoms are usually rapid in onset, but of short duration and generally resolve spontaneously. It is usually a functional disturbance and not a structural one.

Loss of consciousness may or may not be involved. Exact recovery periods from these types of head injuries are uncertain and will often vary.

The Presbyterian College Sports Medicine staff adheres to all the NCAA Concussion Policies and Legislation set forth. All members of the Presbyterian College Sports Medicine staff will practice within the scope of their professional practice. The Presbyterian College Sports Medicine Staff in conjunction with our Team Physician will determine whether or not a concussion has occurred. The Team Physician will make the final determination of return-to-play once asymptomatic and post-injury assessments are within normal limits.

PRESEASON EDUCATION

- All Presbyterian College student-athletes are required to sign a statement in which the student-athlete accepts the responsibility for reporting their injuries and illnesses to the Presbyterian College medical staff, including the signs and symptoms of concussions. Prior to any start to athletic activity each student-athlete is presented with the NCAA Student-Athlete

Concussion Fact Sheet. Once reviewed they are required to sign a statement of acknowledgement and understanding of the information provided.

- All football players will be required to sign the Helmet Warning Sheet at the start of each preseason.
- All Presbyterian College coaches, strength and conditioning coaches and sports medicine staff are required to watch a course video called “Heads Up”. This course is part of the Centers for Disease Control and Prevention Learning Center. A “course completion certificate” is kept on file on each participant. In addition, the previous stated athletic department personnel is presented with the NCAA Coaches Fact Sheet. Once reviewed they are required to sign a statement of acknowledgement and understanding of the information provided.
- Although sports currently have rules in place; all athletics staff, student-athletes, officials should continue to emphasize that purposeful or flagrant head or neck contact in any sport should not be permitted. At the start of each preseason official meetings are held with football to go over these rules and proper techniques of tackling.

PRE-PARTICIPATION BASELINE ASSESSMENT

- All Student-Athletes (including cheerleaders) will undergo a pre-participation physical. All student-athletes are asked to report their history of head injuries and concussions as part of completing their medical history forms, prior to receiving a physical by a Team Physician for medical clearance to participate. All new (first year/transfers) will receive a baseline concussion assessment. In addition to the brain/concussion history, this assessment will involve neuro-cognitive computer testing, symptom evaluation from SCAT 5, & BESS Balance testing.
- This test is performed every 2 years unless a concussion is sustained. Once a student-athlete is diagnosed with a concussion, this assessment will be used to aid in the determination of when the Student-Athlete may return to participation. In addition these Student-Athletes will receive a new baseline assessment every year (or more if deemed necessary by the Team Physician).
- The Team Physician determines all pre-participation clearance(s).

RECOGNITION AND DIAGNOSIS OF CONCUSSION – HALT OF PHYSICAL ACTIVITY

- Medical personnel (ATC or ATC/Team Physician) with training in the diagnosis, treatment and initial management of acute concussion must be “present” at all NCAA varsity competitions in the following contact/collision sports: basketball, football, women’s lacrosse & soccer. To be present means that medical personnel from Presbyterian College will be on-site at the campus or arena of competition. Medical personnel may be from either team or in very rare circumstances independently contracted out.
- In addition, medical personnel (ATC or ATC/Team Physician) with training in the diagnosis, treatment and initial management of acute concussion will be “available” at all NCAA varsity practices in the following contact/collision sports: basketball, football, women’s lacrosse & soccer. To be available means that at a minimum medical personnel may be contacted at any time during practice via telephone, messaging, email, beeper or other immediate communication means. Further, the case can be discussed through such communication, and immediate arrangements can be made for the Student-Athlete to be evaluated.

SIGNS AND SYMPTOMS OF A POSSIBLE CONCUSSION (including but not limited to):

- Amnesia
 - Confusion
 - Headache
 - Balance Problems
 - Double or Fuzzy Vision
 - Nausea/Vomiting
 - Feeling irritable
 - Slowed Reaction Time
 - Loss of Consciousness
 - Dizziness
 - Sensitivity to Light or Noise
 - Feeling Sluggish or Foggy
 - Concentration or Memory Problems
 - Difficulty Sleeping
- When a Student-Athlete exhibits signs, symptoms or behavior consistent with a possible concussion, they shall be removed from practice or competition and evaluated by a Certified Athletic Trainer and/or the Team Physician.

- The Student-Athlete will be evaluated and monitored for a minimum of 15 minutes to determine their status as it relates to being concussed.
- Once a Student-Athlete has been diagnosed with a concussion, he or she shall be immediately removed from all physical activity for the remainder of the day. In addition, the Student-Athlete will not be allowed to participate in any academic activities. NO athlete suspected of having a concussion is permitted to return to play while symptomatic.
- Clinical assessment at the time of injury will include a Graded Symptom Checklist (GSC), Sports Concussion Assessment Tool 5 (SCAT 5), along with physical, neurological, cognitive and balance examinations. There will also be a clinical assessment for cervical spine trauma, skull fracture and intracranial bleeding.

POST-CONCUSSION MANAGEMENT:

- The Emergency Action Plan (EAP) for that particular venue will be activated if any of the following exist: Glasgow Coma Scale < 13, prolonged loss of consciousness, focal neurological deficit suggesting intracranial trauma, repetitive vomiting/emesis, persistently diminished/worsening of mental status, spinal injury and, or other neurological signs/symptoms.
- If the concussion occurs when away from campus, the Student-Athlete will be examined by a doctor of the host school and shall then have a follow-up examination by PC's Team Physician upon return.
- After the initial clinical evaluation, the symptom checklist should be repeated and a follow-up with the Team Physician may be indicated.
- Upon discharge, the Student-Athlete's caregiver (parent, guardian, roommate) will be provided with a Concussion Take Home Instruction sheet.
- A letter and/or phone call will be placed to the Academic Coordinator/Assistant Athletic Director for Compliance. They will in turn send a letter to the Student-Athlete's professors. It is also the Student-Athlete's responsibility to follow-up with their professors for classes/assignments missed (SEE RETURN TO LEARN)
- The Student-Athlete will be monitored daily for progression of symptoms from rest, physical and mental exertion. This includes a Graded Symptom Checklist (GSC), BESS and other serial evaluations.

- Once the Student-Athlete is asymptomatic, a complete post-injury neuro-cognitive computer test and SCAT 5 (including BESS) is taken. This is compared to baseline.
- Once the above variables are met, another clinical evaluation is performed by the Team Physician. The Team Physician in turn directs the Presbyterian College Sports Medicine staff to initiate the Return-to-Play Guidelines (RTP).
- The Team Physician will determine referral options for Student-Athletes with prolonged recovery in order to consider additional diagnosis and best management options. Additional diagnosis include, but are not limited to: post-concussion syndrome, sleep dysfunction, migraine or other headache disorders, mood disorders such as anxiety and depression and ocular or vestibular dysfunction.

EMERGENCY ACTION PLAN

- Presbyterian College Sports Medicine personnel will execute the Presbyterian College Sports Medicine **Emergency Action Plan** for further medical care and/or transportation as deemed necessary. A detailed **Emergency Action Plan** is in place for each athletics venue.

RETURN TO PLAY GUIDELINES (RTP)

- In order to be cleared for return to full participation, a Student-Athlete must go through each of the Stages outlined below. These commence after examination by the Team Physician.
- The Student-Athlete will have limited physical and cognitive activity until he/she has returned to baseline. Progression will occur **ONLY** without worsening of symptoms or new ones appearing.
- If the Student-Athlete exhibits concussion symptoms at any Stage, the Team Physician shall be informed and the Student-Athlete must return to Stage 1 and begin the progression again.
- The Athletic Trainer and the Team Physician will monitor the progression of the Student-Athlete through the Stages. The Presbyterian College

Sports Medicine staff will use memory, concentration and balance techniques, along with other examinations deemed appropriate during their evaluations of the concussed Student-Athlete to determine how quickly the RTP progression is performed.

- Each Stage must be completed and a minimum of **ONE DAY** will be devoted to each Stage.

Stage 1: Light aerobic exercise without resistance – 20 minutes on stationary bike.

Stage 2: Light strength training (body weight exercises – push-ups, squats, sit-ups), sports specific exercise without head impact (NO CONTACT – NO PADS).

Stage 3: Non-contact practice with progressive resistance training.

Stage 4: Full contact practice after medical clearance from Team Physician

Stage 5: Return to competition

RETURN TO LEARN (RTL)

- The Presbyterian College Team Physicians, Sports Medicine Staff, the Provost Office, the Academic Coordinator/Assistant Athletic Director for Compliance and the Presbyterian Student Life Staff will work together to determine the Return-To-Learn status of a post-concussed Student-Athlete.
- **When a Student-Athlete has been diagnosed with a concussion, they will be held from practice, competition and classroom activities that same day.**
- The Academic Coordinator/Asst. Athletic Director for Compliance will be the point person when dealing with the Student-Athletes professors and any accommodations that may be needed in their return to the classroom and activities that are associated with their full academic return. As noted previously, it is also the responsibility of the Student-Athlete to follow-up with their professors as far as class/assignments missed.
- RTL will be managed through a step by step protocol (similar to RTP) based on the needs of the individual and will involve a multidisciplinary team. This team includes team physicians, sports medicine staff, coaches, psychologists, school counselors, neuropsychologist, faculty athletic representative, academic coordinator, professors, college administrators and the disability office.

- The Presbyterian College Disability Office will be utilized when modifications outside of schedule modifications or academic accommodations are needed. This could also include an ADA office, where full compliance will be met.
- A Student-Athlete that has been diagnosed with a concussion is seen daily by a member of the Presbyterian College Sports Medicine Staff to determine if the Student-Athlete's recovery has progressed to allow them to attempt to go to class, study hall and tutoring sessions for that day. The Academic Coordinator/Assistant AD for Compliance will be notified of the decision and in turn relay that decision to the Student-Athlete's professors. This process will continue until the Student-Athlete has returned to full classroom activity. (SEE RTL RECOMMENDED GUIDELINES)
- If, at any point, the symptoms worsen and/or return as a result of academics, the individual will be re-evaluated by the team physician and multidisciplinary team, if appropriate when symptoms are prolonged and remain after two weeks. This includes any schedule modification/academic accommodations adjustments. As stated previously, outside resources may be used in these individual cases that are consistent with ADA. Such resources include learning specialists.

RTL RECOMMENDED GUIDELINES

Stage 1: Brain Rest in Dorm: No mental exertion. Stay at home/dorm. No reading, texting, video games, computer, or homework. No driving. Progress to next stage after 24 – 48 hours without worsening of symptoms.

Stage 2: Restful Dorm Activity: Up to 30 minutes of light mental exertion. No prolonged concentration. Stay at home and no driving. Progress to next stage when able to handle up to 30 minutes of light mental activity without worsening of symptoms.

Stage 3: Half-day Return to School: Gradually return to classes.

Symptoms have decreased to manageable levels. Balance rest with gradual re-introduction of school. Use sun-glasses/earplugs as needed. Sit in front of the class. Use pre-printed large font (18) class notes. Complete necessary assignments only. No tests or quizzes. Limit homework time. Multiple choice or verbal assignments better than long writing. Tutoring or help as needed. Stop work if symptoms worsen.

Stage 4: Full-day Return to School: Progress to attending classes for full days. No more than 1 quiz/test per day. Give extra time or untimed quizzes/tests. Tutoring or help as needed. Progress to next stage when able to handle all class periods in succession without worsening of symptoms and clearance for full return to academics and athletics.

Stage 5: Full Recovery: No symptoms are present. No accommodations are needed. May return to normal school schedule and course load.

MULTIPLE CONCUSSIONS

- Any Student-Athlete that has multiple concussions while at Presbyterian College will be given ongoing monitoring, and his or her status will be determined on a case-by-case basis.
- This may also include developmental disorders (e.g. learning disabilities, attention-deficit hyperactivity disorder), or a psychiatric disorder (e.g. anxiety, depression). These individuals may benefit from a referral to a neuropsychologist to administer and interpret neuro-cognitive assessments. This will help determine readiness to return to scholastic and athletic activities. It should be noted that RTL and RTP take longer to complete when these factors exist.
- **ALL DOCUMENTATION** pertaining to the Student-Athlete's concussion assessment will be included in the Student-Athlete's medical records.

REDUCING EXPOSURE TO HEAD TRAUMA

- The Presbyterian College Sports Medicine Staff and Team Physicians will review the Concussion Policy annually and will be responsible for updating this policy and making the necessary revisions. As part of this annual review, the following principles will be followed: Adherence to Inter-Association Consensus: Year - round Football Practice Contact Guidelines, Adherence to Inter-Association Consensus: Independent Medical Care Guidelines, reducing gratuitous contact during practice, taking a “safety first” approach to sport, taking the head out of contact & coaching proper technique.
- As stated previously, it is the responsibility of the sports medicine staff, the athletics staff, student-athletes and officials to continue to educate and emphasize that purposeful or flagrant head or neck contact in any sport should not be permitted and current rules of play should be strictly enforced.

REFERENCES

- 1.) Hainline B. Concussions: Return To Learn Guidelines – National College Athletic Association 2014
- 2.) Guskiewicz KM, Bruce SL, RC C, Ferrara MS, Kelly JP, McCrea M, Putukian M, Valovich McLeod TC. National Athletic Trainers’ Association Position Statement: Management of Sport-Related Concussion. *Journal of Athletic Training*: 2004; 39:280-297.
- 3.) Courson R et al. Inter-association consensus statement on best practices for sports medicine management for secondary schools and colleges. *Journal of Athletic Training* 2014; 49:128-137
- 4.) National Collegiate Athletic Association Sports Science Institute: Concussion Diagnosis and Management Best Practices. 2017; 1-6.
- 5.) Cincinnati Children’s Hospital Guidelines for Return to Learn, CIFSTATE.ORG