Worcester Polytechnic Institute: Sports Medicine Department
Concussion Policy and Protocol

Introduction:
Research has shown that student athletes are most vulnerable to concussions, post-concussion syndrome, and complex concussion symptoms within 7-14 days of an initial concussion. The WPI Sports Medicine Department focus is to provide proper care in collaboration with Team Physicians and annual recommendations from the NCAA Sports Science Institute to minimize the short and long term risks of concussions.

Annual Education:
Student athletes, coaches, and additional administrators will be educated annually about current NCAA guidelines and updates.

Coaches and staff:
1. Understand the signs and symptoms of concussions. NCAA Concussion: Factsheet for Coaches and additional information provided by Athletic Trainers during department workshops will be provided annually.
2. Head, Assistant, and Volunteer Coaches must complete Heads Up through the CDC. (https://www.cdc.gov/headsup/youthsports/training/)
4. Signed Concussion Statement document stating coaches are provided concussion education on file in Sports Medicine Office

Student Athletes:
1. Complete Concussion Statement Form, watch Concussion Education Video, and complete Educational Video Quiz for Pre-participation Forms submission in Sportware.
2. A power point presentation and NCAA Concussion: A Fact Sheet for Student-Athletes provided during Preseason Talk Meeting prior to the start of their athletic season.
3. Documents about concussion education available on the Sports Medicine Website.
4. Baseline Concussion Computerized and Balance Testing completed prior to first official team practice.

Baseline Concussion Testing:
1. All first year and transfer student athletes must complete a baseline concussion computerized and balance test. This must be completed prior to the first official team practice.

*If a student athlete does not complete their baseline test they will not be allowed to participate.
WPI Sports Medicine Protocol for Care of a Student Athlete with Suspected Concussion:

All student athletes with a suspected concussion need to be evaluated immediately by the athletic training staff and/or covering physician if present and triaged appropriately (monitoring the student athlete, sending to ER, activating EMS, etc.)

- Any student athlete with a suspected concussion is done from participation for the day (i.e. no more bell ringing episodes and sending the athlete back if they clear within 15 minutes). It is too risky to return an student athlete that same day with a brain injury/suspected concussion.

- Any student athlete with progressive neurologic symptoms, focal/unilateral neurologic deficits, confusion, agitation, or at the discretion of the ATC and/or covering physician (if present) should be transferred via EMS to the nearest appropriate hospital or medical facility. This might be either when evaluated on the field/site of injury or later in the day or evening if symptoms worsen.

- All student athletes with a suspected concussion and stable neurologic exam will be released to a responsible adult (roommate, coach, or parent/guardian). The student athlete and responsible adult will be provided a concussion factsheet packet regarding the warning signs to monitor for the next 24-48 hours after sustaining a concussion. “The Care Team” will be contacted by on duty WPI athletic trainer about the student athlete’s injury.

- All WPI student athletes with a suspected concussion will be seen within 24-48 hours of the injury by a WPI approved team physician. The athletic trainer and student athlete will work together to make an appointment as soon as possible. The athletic training staff will continue to monitor symptoms.

- The WPI Team Physician, Disability Services, Academic Advising, and Health Services will provide the student athlete with academic support and Return to Learn protocols. Once the student athlete asymptomatic for 24-48 hours and completed the Return to Learn protocol they may begin the Return to Play Protocol.

- All student athletes with a suspected concussion need to be evaluated and cleared prior to full return to play by WPI approved team physicians in collaboration and coordination with the WPI Athletic Training/Sports Medicine Staff. Appropriate serial monitoring, balance testing, neuro-cognitive testing, clinical exam, and symptom scores will assist in this process. If computer based neuropsychological testing is utilized post-concussion, it should not be performed until the student athlete’s symptom checklist score is zero (i.e. has no symptoms) and they have a normal clinical exam.

- Cases of complex concussions (atypical symptoms, prolonged recovery, etc.) may require triage to neurology on a case by case basis. Cases of complex concussions, history of prior concussions, or repeat concussions within the same athletic season will often require a longer return to play progression and may necessitate the termination of the athletic season at the discretion of the WPI athletic training staff and appropriate consultants.

- Team physicians in coordination with the athletic training staff, the student athlete, and student athlete’s family (if a minor) have the final decision on return to play at WPI. Outside or home physician evaluations sought by the student athlete or student athlete’s family will be reviewed and put in context of the injury, but non WPI associated physicians will not determine return to play for WPI
student athletes.

- No student athlete with continued clinical symptoms will be allowed to return to play at any time
- All non-athletic related concussions will be referred to the emergency room or health services. All student athletes that sustain a concussion must complete the Return to Play (RTP) protocol prior to returning to full activity.

**Return to Learn:**
The WPI Sports Medicine Department works with a team of departments to assist with the Return to Learn process:

- Team Physician
- Health Services
- Office of Disability Services (DSO)
- Academic Advising (AA)
- The Care Team

When a student athlete sustains a concussion the athletic trainer on duty notifies The Care Team, which notifies all parties above (except team physician who is contacted separately). The following are the steps taken to return the athlete back to the classroom:

- Academic Advising alerts the student athlete’s professors that they will be on cognitive rest.
- Athlete does not attend class if he/she is symptomatic that day/following day until seen by the team physician.
- Team physician designates student athlete’s academic load and progress. Follow up weekly.
- Student athlete is contacted by DSO about a meeting and accommodations in the classroom.
- Once symptom free student athlete begins to progress back to normal academic load under the guidance of the team physician.
- Once asymptomatic and cleared by team physician to return to the classroom fully, student athlete may begin Return to Play Protocol.

**Return to Play Protocol:**
This protocol is a seven day progression that has been approved by the WPI team physician. In order to begin the RTP Protocol the student athlete must be cleared by the WPI Team Physician, asymptomatic (24-48 hours), and completed the Return to Learn process and returned to the classroom full time (unless otherwise designated differently by team physician). This is a general progression each concussion case is individualistic.

- The student athlete must be asymptomatic after each stage to progress to the next step.
- If symptoms occur during the RTP Protocol activity stops and the student athlete must wait until they are asymptomatic 24-48 hour before restarting the progression.

1. Light aerobic exercise such as walking, swimming or riding a stationary bike. No resistance training. If asymptomatic with light exercise, then;
2. Mode, duration, and intensity-dependent exercise based upon sport. If asymptomatic with such exertion, then;
3. Sport-specific activity with no head impact. If asymptomatic with sport-specific activity, then;
4. Non-contact sport drills and resumption of progressive resistance training. If asymptomatic with non-contact drills and resistance training, then;
5. Full-contact practice. If asymptomatic with full-contact practice, then;
6. Return-to-play. Medical clearance will be determined by the team physician/physician designee, or athletic trainer in consultation with a team physician.
7. Game Day