

CONCUSSION ASSESSMENT, MANAGEMENT AND RETURN TO PLAY GUIDELINES



University of Vermont Club Sports
STUDENT GOVERNMENT ASSOCIATION

UVM Club Sports and Athletic Training

Concussion Assessment, Management and Return to Play Guidelines

Purpose

This document outlines the UVM Club Sport's Athletic Training policy regarding the management and care of sport-related concussion. Concussion, a potentially serious consequence of participation in collegiate athletics, is defined as a complex pathophysiological process affecting the brain, induced by traumatic biomechanical forces. Concussive injury manifests through a variety of physical, cognitive and behavioral symptoms and proper management is vital in order to prevent serious, and potentially life-threatening, complications. This protocol should be used as a guide for the management of concussion in student-athletes at UVM. It is important to note that all concussions do not present in the same way, and each case should be treated individually. A team-approach involving the student-athlete, certified athletic trainer (ATC) and **Center for Health and Wellbeing or physician** should be used to determine when it is safe for a student-athlete to return to activity. Recommendations for this protocol were taken from the NATA Position Statement: Management of Sport-Related Concussion, the Consensus Statement on Concussion in Sport: the 3rd International Conference on Concussion in Sport, held in Zurich, Switzerland in November 2008, and recommendations from the NCAA Executive Committee.

Baseline Testing

All incoming freshman and other first-time UVM Club Sport student-athletes participating in the sports designated as "high-risk" will undergo baseline ImPACT (Immediate Post-concussion Assessment and Cognitive Testing) **and/or SCAT2 (Sport Concussion Assessment Tool 2) testing** prior to beginning workouts with their respective team.

- The ImPACT test is a computerized concussion management system that tests the following components of cognitive function: verbal memory, visual memory, information processing speed, reaction time and impulse control.
- The SCAT2 test consists of a Graded Symptom Scale (GSS), the Balance Error Scoring System (BESS) and the Standardized Assessment of Concussion (SAC). This tool identifies the severity of symptoms, balance deficits and immediate neurocognitive deficits.

A thorough concussion history, including number of concussions, as well as symptoms following any identified head trauma, will also be gathered on each athlete.

Designated "high-risk" sports include: football, men's and women's rugby, men's and women's ice hockey, and men's lacrosse.

It is our policy that this will not exclude or discriminate against other Club Sport teams and/or individual student-athletes that desire to conduct a baseline ImPACT test. In addition, it will be strongly recommended for student-athletes with a history of concussion participating in any other "at-risk" sport to conduct an ImPACT baseline test.

NCAA Mandates*

*While there is not uniform governing body for University Club Sports, the UVM Club Sports Athletic Training will adhere to the mandates of the NCAA.

The NCAA Executive Committee adopted (April 2010) the following policy for institutions in all three divisions:

"Institutions shall have a concussion management plan on file such that a student-athlete who exhibits signs, symptoms or behavior consistent with a concussion shall be removed from practice or competition

and evaluated by an athletics healthcare provider with experience in the evaluation and management of concussions. Student-athletes diagnosed with a concussion shall not return to activity for the remainder of that day. **Medical clearance shall be determined by the team physician or his or her designee according to the concussion management plan.** [Can we have documented that the ATs for Club Sports are an appropriate designee?]

“In addition, student-athletes must sign a statement in which they accept the responsibility for reporting their injuries and illnesses to the institutional medical staff, including signs and symptoms of concussions. During the review and signing process, student-athletes should be presented with educational material on concussions”. (Appendix A and B) *[We need to make sure all student-athletes are presented with this if we follow these guidelines. Leon – can we attached this to their online PPE, and have that signature be electronic?]*

Injury Evaluation and Care

Certified athletic trainers and athletic training students should be well educated on the signs and symptoms related to concussion. Symptoms, as well as physical, cognitive and behavioral signs, need to be identified. In addition to a standard concussion assessment, the pocket SCAT2 tool may be used to identify these signs in a student-athlete following injury.

Concussion should be suspected with the presence of any signs or symptoms following injury, or any mechanism of injury that involved trauma to the head or neck. A student-athlete demonstrating features of concussion should be immediately removed from all activity until a thorough assessment can be done. The student-athlete should be closely monitored and re-evaluated every 5 minutes until their condition improves.

Same Day Return to Play

Same day return will **not** be considered, even if a student-athlete demonstrates a full physical and cognitive recovery within 20 minutes of the injury.

Student-athletes should be monitored closely after injury, especially within the first 24 hours, to identify any delayed onset signs and symptoms.

Injury Management

Physical and cognitive rest should be encouraged in all student-athletes recovering from a concussion. This includes, but is not limited to, all physical activity, schoolwork/reading, watching television, using a computer and sending text messages. These activities have the potential to prolong symptoms, and therefore, the recovery process.

While these activities have the potential to prolong recovery, it is also important to consider that the top priority of our student-athletes is their academics. If it is determined that a concussion is severe enough to require a hiatus from academic work, the Athletic Trainer should be notified to ensure proper steps are taken to inform the student-athlete’s professors of their injury. The student-athlete will also be expected to contact their professors and maintain communication around scheduling and make-up work upon recovery.

The ImPACT test should be administered as soon as possible following the initial injury, ideally within the first 24-48 hours. There is a population of student-athletes that will underreport symptoms, and the “asymptomatic impaired” student-athlete is the most dangerous to deal with. Administration therefore may be used again to reassess cognitive status when the student-athlete becomes asymptomatic. The utility of the ImPACT test is to enhance the clinical evaluation, not replace it. Serial evaluations are very helpful in assistance with appropriate determination of recovery.

Student-athletes recovering from concussion should be monitored by an ATC daily for any changes in their symptoms. [Not feasible? Email communication? – question for Dr. Porter/risk management?]

Referral

In all circumstances where a concussion is suspected, the team physician will be made aware of the situation. [Is this necessary to inform the CHWB? Or is the documentation in the online injury reports sufficient?] Follow-up assessments between concussed student-athlete and ATC and/or physician will be scheduled as deemed necessary.

A student-athlete should be referred to a physician on the day of injury if they meet any of the following criteria:

- Loss of consciousness on the field
- Amnesia lasting longer than 15 min
- Deterioration of neurologic function*
- Decreasing level of consciousness*
- Decrease or irregularity in respirations*
- Decrease or irregularity in pulse*
- Increase in blood pressure
- Unequal, dilated, or nonreactive pupils*
- Cranial nerve deficits
- Any signs or symptoms of associated injuries, spine or skull fracture, or bleeding*
- Mental status changes: lethargy, difficulty maintaining arousal, confusion, or agitation*
- Seizure activity*
- Vomiting
- Motor deficits subsequent to initial on-field assessment
- Sensory deficits subsequent to initial on-field assessment
- Balance deficits subsequent to initial on-field assessment
- Cranial nerve deficits subsequent to initial on-field assessment
- Post-concussion symptoms that worsen
- Additional post-concussion symptoms as compared with those on the field
- Student-athlete is still symptomatic at the end of the game

*Requires that the student-athlete be transported immediately to the nearest emergency department.

Routine (non-urgent) referral (after the day of injury) should occur in the following cases:

- Any of the findings in the day-of-injury referral category
- Post-concussion symptoms worsen or do not improve over time
- Increase in the number of post-concussion symptoms reported
- Post-concussion symptoms begin to interfere with the athlete's daily activities (i.e. sleep disturbances or cognitive difficulties)

Return to Play Progression

A student-athlete must be asymptomatic for at least 24 hours prior to the start of the graduated return to play protocol. It is strongly recommended that after recurrent injury, especially within-season repeat injuries, the athlete be withheld for an extended period of time (approximately 7 days) after symptoms have resolved. Additionally, all physical and cognitive testing scores should be equal to or better than baseline scores.

The following return to play protocol was recommended in the Consensus Statement on Concussion in Sports from the 3rd International Conference on Concussion in Sport held in Zurich, Switzerland in November 2008.

Rehabilitation stage	Functional exercise at each stage of rehabilitation	Objective of each stage
1. No activity	Complete physical and cognitive rest	Recovery
2. Light aerobic exercise	Walking, swimming or stationary cycling keeping intensity <70% maximum predicted heart rate No resistance training	Increase heart rate
3. Sport-specific exercise	Skating drills in ice hockey, running drills in soccer. No head impact activities	Add movement
4. Non-contact training drills	Progression to more complex training drills, eg passing drills in football and ice hockey May start progressive resistance training)	Exercise, coordination, and cognitive load
5. Full contact practice	Following medical clearance participate in normal training activities	Restore confidence and assess functional skills by coaching staff
6. Return to play	Normal game play	

With this progression, the student-athlete should continue to progress to the next level once asymptomatic at the current level. Generally, each step should take 24 hours - the student-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-concussive symptoms occur while moving through the progression, the student-athlete should drop back to the previous asymptomatic level and try to progress again after a further 24 hour period of rest has passed.

It is important to note that concussive injuries occur with varying levels of severity, as well as a variety of signs and symptoms. In some cases, the athlete may recover quickly, without evidence of post-concussion complications. In these cases, it may be appropriate to allow the athlete to progress through the rehabilitation protocol at an accelerated rate. Several factors, including mechanism of injury, severity and number of symptoms, sport (risk of recurrent injury) and concussion history should be taken into consideration when making this decision. Again, return to play decisions should always be made after an incremental increase in activity with an initial cardiovascular challenge, followed by sport-specific activities that do not place the athlete at risk for concussion. The athlete can be released to full participation as long as no recurrent signs or symptoms are present.

Student-Athlete Disqualification

Disqualification from game or practice

The decision to disqualify a student-athlete from further participation on the day of the concussive episode is based on the sideline evaluation, the symptoms the student-athlete is experiencing, the severity of the apparent symptoms, and the patient's past history. Any episode involving LOC or persistent symptoms related to concussion (headache, dizziness, amnesia, and so on), regardless of how mild and transient, warrants disqualification for the remainder of that day's activities.

Disqualification for the season

Current published concussion guidelines recommend termination of the season after the third concussion within the same season. The decision is more difficult if one of the injuries was more severe or was a severe injury resulting from a minimal blow, suggesting the student-athlete may be at particular risk for recurrent injury. Without clear-cut answers in the literature, each case will be treated individually. A team approach involving the athlete, team physician **CHWB?** and certified athletic trainer will be used to determine the best course of action for the student-athlete and their health and well-being.

Disqualification for the career

Research has shown that once a student-athlete has suffered a concussion, he or she is at increased risk for subsequent head injuries. Therefore, the duration of symptoms may be a better criterion as to when to disqualify a student-athlete for the season or longer. Student-athletes sustaining multiple concussions with recurrent or post-concussion signs and symptoms that last for lengthy periods of time need to be considered for potential disqualification. Debate still surrounds the question of how many concussions are enough to recommend ending the player's career. Again, a team approach will be used in each case and each situation will be treated individually, as concussions present in varying degrees of severity, and all student-athletes do not respond in the same way to concussive insults.

UNIVERSITY OF VERMONT CLUB SPORTS

INJURY AND ILLNESS REPORTING ACKNOWLEDGEMENT FORM

I, _____, acknowledge that it is my responsibility to assume an active role in my own healthcare. As such, I agree to report all of my injuries and illnesses to the **Athletic Trainer, Center for Health and Well-Being, and/or complete an appropriate injury report form on the Lynx, through the University of Vermont**. With the understanding that a true assessment of my physical condition is possible only when full disclosure of symptoms, complaints, and prior injuries is provided, I agree to relate to the aforementioned staff any information I possess that relates to my present condition. I also affirm that I have fully disclosed in writing information regarding prior medical conditions as requested by the UVM Club Sports staff.

I understand that there is a possibility that participation in my sport may result in a head injury and/or concussion. I have been provided with education on head injuries and understand the importance of immediately reporting symptoms of a head injury/concussion to **the appropriate medical staff**.

By signing below, I acknowledge that the University of Vermont Club Sport Athletic Training staff has provided me with specific educational materials about head injury and concussion and has **provided me with an opportunity to ask questions about these materials**.

[CAN WE HAVE THIS PRESENTED ONLINE WITH E-SIGNATURE? IS THIS FORM ALREADY PRESENTED IN PPE?]

I, _____, have read the above and agree that the statements are accurate.
Student-athlete's name

Signature of student-athlete

Date

Name of ATC obtaining consent

Signature of ATC



Part of the Student Government Association

CONCUSSION

A FACT SHEET FOR STUDENT-ATHLETES

WHAT IS A CONCUSSION?

A concussion is a brain injury that:

- Is caused by a blow to the head or body.
 - From contact with another player, hitting a hard surface such as the ground, ice or floor, or being hit by a piece of equipment such as a bat, lacrosse stick or field hockey ball.
- Can change the way your brain normally works.
- Can range from mild to severe.
- Presents itself differently for each athlete.
- Can occur during practice or competition in ANY sport.
- Can happen even if you do not lose consciousness.

HOW CAN I PREVENT A CONCUSSION?

Basic steps you can take to protect yourself from concussion:

- Do not initiate contact with your head or helmet. You can still get a concussion if you are wearing a helmet.
- Avoid striking an opponent in the head. Undercutting, flying elbows, stepping on a head, checking an unprotected opponent, and sticks to the head all cause concussions.
- Follow your athletics department's rules for safety and the rules of the sport.
- Practice good sportsmanship at all times.
- Practice and perfect the skills of the sport.

WHAT ARE THE SYMPTOMS OF A CONCUSSION?

You can't see a concussion, but you might notice some of the symptoms right away. Other symptoms can show up hours or days after the injury. Concussion symptoms include:

- Amnesia.
- Confusion.
- Headache.
- Loss of consciousness.
- Balance problems or dizziness.
- Double or fuzzy vision.
- Sensitivity to light or noise.
- Nausea (feeling that you might vomit).
- Feeling sluggish, foggy or groggy.
- Feeling unusually irritable.
- Concentration or memory problems (forgetting game plays, facts, meeting times).
- Slowed reaction time.

Exercise or activities that involve a lot of concentration, such as studying, working on the computer, or playing video games may cause concussion symptoms (such as headache or tiredness) to reappear or get worse.

WHAT SHOULD I DO IF I THINK I HAVE A CONCUSSION?

Don't hide it. Tell your athletic trainer and coach. Never ignore a blow to the head. Also, tell your athletic trainer and coach if one of your teammates might have a concussion. Sports have injury timeouts and player substitutions so that you can get checked out.

Report it. Do not return to participation in a game, practice or other activity with symptoms. The sooner you get checked out, the sooner you may be able to return to play.

Get checked out. Your team physician, athletic trainer, or health care professional can tell you if you have had a concussion and when you are cleared to return to play. A concussion can affect your ability to perform everyday activities, your reaction time, balance, sleep and classroom performance.

Take time to recover. If you have had a concussion, your brain needs time to heal. While your brain is still healing, you are much more likely to have a repeat concussion. In rare cases, repeat concussions can cause permanent brain damage, and even death. Severe brain injury can change your whole life.



**IT'S BETTER TO MISS ONE GAME THAN THE WHOLE SEASON.
WHEN IN DOUBT, GET CHECKED OUT.**

For more information and resources, visit www.NCAA.org/health-safety and www.CDC.gov/Concussion.



Reference to any commercial entity or product or service on this page should not be construed as an endorsement by the Government of the company or its products or services.

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