University of Utah Sport Clubs Concussion Management Plan

1. Overview

The following components will be outlined as part of this comprehensive concussion management plan:

- 1.1.1. Concussion Overview (section 2)
- 1.1.2. Potential Consequences of Continuing Participation after a Concussion (Section 3)
- 1.1.3. Concussion Education for Student-Athletes (section 4)
- 1.1.4. Concussion Education for Coaches and Staff (section 5)
- 1.1.5. Head Injury Response of Campus Recreation Services (Section 6)
- 1.1.6. Concussion action plan (section 7)
- 1.1.7. Appendix A: Personnel Roles
- 1.1.8. Appendix B: Immediate Post Concussion Instructions
- 1.1.9. Appendix C: Symptom Diary and checklist
- 1.1.10. Appendix D: Return to School recommendations
- 1.1.11. Appendix E: Return to Play Protocol

2. What is a Concussion

2.1. Concussion, or mild traumatic brain injury (mTBI), has been defined as "a complex pathophysiological process affecting the brain, induced by traumatic biomechanical forces." Although concussion most commonly occurs after a direct blow to the head, it can occur after a blow elsewhere that is transmitted to the head.

2.2. The following signs and symptoms are associated with concussions:

Loss of consciousness (LOC)	Disequilibrium
Confusion	Feeling 'in a fog', 'zoned out'
Post-traumatic Amnesia (PTA)	Vacant stare, 'glassy eyed'
Retrograde Amnesia (RGA)	Emotional lability
Disorientation	Dizziness
Delayed verbal and motor responses	Slurred/incoherent speech
Inability to focus	Visual Disturbances, including light sensitivity, blurry vision, or double vision
Headache	Excessive Drowsiness
Nausea/Vomiting	

3. Potential Consequences of Continuing Participation after a Concussion

3.1. Any participant who experiences a sign or symptom after a bump or blow to the head should immediately be removed from participation and evaluated by a qualified health care professional.

3.2. A participant who continues to play after receiving a concussion, or who returns to play before the brain has recovered from a concussion, is at risk of slower recovery from the injury and has an increased likelihood of having long-term problems.

3.2.1. Such problems may include brain swelling, permanent brain damage, and even death.

4. Concussion Education for Student Athletes

4.1. During the sport club presidents meeting, at the beginning of each semester, an overview of the concussion policy and its components will be explained along with role and responsibilities as outlined in Appendix A.

4.2. The discussion will also include an emphasis that purposeful or flagrant head or neck contact in any sport should not be permitted and can result in serious life-threatening injury.

5. Concussion Education for Coaches and Staff

5.1. At the beginning of the semester, Campus Recreation Services will provide coaches and Sport Club officers the concussion management plan. Their role and responsibilities as outlined in Appendix A will be explained.

5.2. The coaches will have their role within the plan described as outlined in Appendix A. Briefly, their role is to remove any student-athlete that shows any sign of concussion, make sure that they are evaluated by the appropriate health care professional, and to only allow the student-athlete to return to play after receiving clearance from an appropriate health care professional.

6. Head Injury Response Campus Recreation Services

6.1. CRS Head Injury Response

6.1.1. In case of suspected head injury:

6.1.1.1. The participant must stop all recreation activities as soon as a head injury is recognized.

6.1.1.2. The Facility Manager, Head Lifeguard, or Intramural Supervisor must be notified, if not already.

6.1.2. An incident report is completed by CRS staff.

6.1.2.1. The Facility Manager, Head Lifeguard or Intramural Supervisor will explain the CRS protocol for potential concussion to the participant, specifically informing them of the following:

6.1.2.1.1. The participant's access to CRS facilities and program participation will be halted until cleared by a medical professional. This includes restriction from Intramural Sports, Club Sports, and Outdoor Adventure participation.

6.1.2.1.2. The injured participant is responsible to obtain documented medical clearance and return the clearance to the Eccles Student Life Center.

6.1.2.1.3. Once medical clearance is received and filed, the participant will regain access to CRS facility use and program participation.

6.1.3. CRS staff will hand the participant a business card with details summarizing their next steps. The business card tells the participant that facility and program access is not permitted until they obtain clearance from a medical professional.

6.1.4. The Facility Manager, Head Lifeguard, or Membership staff will add a comment to the participant's account to state:

6.1.4.1. *Due to a suspected head injury, member is required to obtain a doctor's authorization before being allowed to participate in recreation programs and access the ESLC. (including open recreation, Intramural Sports, Sport Clubs, and Outdoor Adventure).*

6.1.5. When the member brings their clearance form back to the facility, the Facility Manager or Head Lifeguard will restore access.

6.2. CRS Head Injury Response for Rental Users

6.2.1. During facility rentals, suspected head injuries can occur to both athletes and spectators.

6.2.1.1. Athletes & Spectators

6.2.1.1.1. The athlete must stop all activity as soon as the head injury is recognized.

6.2.1.1.2. Facility Manager or Head Lifeguard inform the athletes coach who is responsible for return to play protocol.

6.2.1.1.3. CRS staff should assist in providing care for injured.

6.2.1.1.4. CRS Staff should provide care for injured spectator

7. Concussion Action Plan

7.1. When a student-athlete shows any signs, symptoms, or behaviors consistent with a concussion, the athlete shall be removed from practice or competition and evaluated by a healthcare provider with experience in the evaluation and management of concussion

7.1.1. When present, the UofU Sport Club Athletic Trainer will conduct sideline or in-clinic evaluations to determine return to play status and level of care. If a concussion is diagnosed, the athlete will be removed from play until an adequate multi-stage return to play protocol has been completed as outlined in Appendix F.

7.1.2. Medical personnel may not be present at Sport Club practices or low-risk sport competitions. Coaches, Staff, Team president, and other team members should be aware of any athlete that is showing signs of a concussion. If an athlete is suspected of having a concussion, they should be removed from play until evaluated by a proper healthcare provider.

7.1.3. If a concussion is suspected during a Sport Club activity where an UofU Campus Recreation Services or UofU Health personnel is not present, a notification to the Sport Club Athletic Trainer must be made within 72 hours (about 3 days). This will be done through a Connect2 Form that is

linked below where the participant will self-report a concussion to UofU Campus Recreation Services and the Sport Club Athletic Trainer.

7.1.4. Sport Club athletes suspected of a concussion may be evaluated by the UofU Sport Club Athletic Trainer to determine level of care. Alternatively, athletes may choose to be evaluated by a healthcare provider of their choice with experience in the evaluation and management of concussion.

7.2. The sideline evaluation should be completed using the Sports Concussion Assessment Tool (SCAT 6); digital smart phone application, tablet application, or paper version. Allow ample time (up to 10-15 minutes) when conducting the SCAT 6 to evaluate a potential concussion.

7.2.1. The SCAT 6 is comprised of a symptom checklist, standard and sport specific orientation questions, the Standardized Assessment of Concussion (SAC), and a coordination and balance examination.

7.2.2. The Sport Club Student-athlete should receive a physical and neurological exam to rule out additional injuries which could include cervical spine trauma, skull fracture, intracranial bleed, and catastrophic injury.

7.3. Immediate care for a concussion will proceed as follows:

7.3.1. Signs that warrant immediate removal from play include: actual or suspected loss of consciousness, seizure, tonic posturing, ataxia, poor balance, confusion, behavioral changes and amnesia.

7.3.2. When in doubt, call 911 for emergency services support and transport if needed.
Immediate removal from play and assessment for possible transport to a local hospital/trauma center when any of the following are present:

- Neck pain or tenderness.
- Seizure or convulsion.
- Double vision.
- Loss of consciousness.
- Weakness or tingling/burning in more than one arm or in the legs.
- Deteriorating conscious state.
- Vomiting.
- Severe or increasing headache.
- Increasingly restless, agitated, or combative.
- Glascow Coma Scale Score <15.
- Visible deformity of the skull.

7.3.3. A Club Sport student-athlete diagnosed with a concussion shall be withheld from the competition or practice and will not return to activity until cleared by a medical professional.

7.3.4. Student-athlete may only return to play on the same day if the student-athlete has been seen by a qualified health care provider who determines that a concussion is no longer suspected.

7.4. The Club Sport student-athlete should receive serial monitoring for deterioration. Club Officers and student athletes have access to this manual and appendices including Appendix C: Symptom Diary and Checklist online and in Campus Connect. Student Athlete should be monitored by someone that can follow the written instructions provided to help with monitoring**. (**See Appendix B for a copy of discharge instructions).

7.4.1. The athlete should report symptoms to their health care provider or as instructed. (See Appendix C for a copy of symptom diary and checklist).

7.4.2. Athletes should be transported by EMS to the Hospital if any of the following signs and symptoms are present: Gloscow Coma Scale < 13 on initial assessment or < 15 at 2 hours or more post initial assessment, prolonged period of loss of consciousness (longer than 1 minute); focal neurological deficit; repetitive emesis; persistently diminished or worsening mental status or other neurological signs or symptoms; and potential spine injury.

7.5. Subsequent management of the student-athlete's concussion shall be under the discretion of a physician or the physician's designee, and may include the following:

7.5.1. Evaluation by a physician for a student-athlete with atypical presentation or persisting symptoms (> 4 weeks) in order to consider additional diagnoses, best management options, and consideration of referral. Additional diagnoses include, but not limited to: Fatigue and/or sleep disorder, Migraine or other headache disorders, mental health symptoms and disorders, ocular dysfunction, cervical and vestibular dysfunction, cognitive impairment, pain, and/or autonomic dysfunction (including orthostatic intolerance and postural orthostatic tachycardia syndrome).

7.5.2. Repeat of SCAT 6 as determined by caring clinician and/or physician when information is needed to determine proper care and progression.

7.5.3. Direction of return to sport protocol, to be coordinated with the assistance of the Sport Club Athletic Trainers (see Appendix F for return to play protocol)

7.5.4. Referral to other Allied Health Professionals for treatment will be at the discretion of a physician or the physician's designee.

7.5.5. A multi-disciplinary team consisting of physician, athletic trainer, academic counselor, course instructor, college administrators, coaches, and representative of the office of student services for disability services should be consulted, as appropriate, for care of prolonged or complex concussions.

7.6. Final authority for unrestricted Return-to-Sport shall reside with a physician or the physician's designee.

7.7. The incident, evaluation, continued management, and clearance of the student-athlete with a concussion should be documented by the health care provider.

APPENDIX A: Personnel Roles

- **Student-Athlete**
    - Report any injury to themselves or another that results in signs and symptoms associated with a concussion.

    - Be compliant with the prescribed treatment and forthright in sharing how they are feeling.
    - use protective equipment as a weapon or intentionally inflict injury on another player.

- **Coach:**
    - Remove any student-athlete that shows any sign of concussion.
    - Ensure they are evaluated by the appropriate health care professional.
    - Allow the student-athlete to return to play after receiving clearance from the appropriate health care professional, following the procedures outlined in this manual.
    - Teach and enforce proper contact techniques to reduce head trauma. Limit number and duration of contact during practice, using equipment as a weapon, and ensure that all playing and protective equipment (including helmets), as applicable, meet relevant equipment safety standards and related certification requirements.
- **Certified Athletic Trainer:**
    - When present, remove any student-athlete that shows any sign of concussion
    - Perform the initial concussion evaluation and subsequent evaluations as physician desires
    - Supervise activities during the return to play protocol, including exertion tests
    - Make proper referral to physician, provide go home instructions to the athlete.
- **Physician:**
    - When present, remove any student-athlete that shows any sign of concussion and perform the initial concussion evaluation and subsequent evaluations as needed
    - Make proper referral to specialists when needed
    - Direct the Certified Athletic Trainer in caring for the Student–Athlete, if necessary
    - Determine when the student-athlete can return to play and return to learn
- **Other Health Professionals:**
    - Consulted by Physician to aid in diagnosis and treatment of concussions

APPENDIX B: Immediate Post Concussion Instructions
The following instructions are to be given to each athlete after sustaining a concussion, as identified in section 5.4

HEAD INJURY PRECAUTIONS

Any suspected head injury should be evaluated by a health care provider, if the provider feels that hospitalization is not necessary, the following instructions should be observed for the first 24 hours:

1. Diet – drink only clear liquids for the first 8-12 hours and eat reduced amounts of foods thereafter for the remainder of the first 24 hours. Avoid alcohol, tobacco, and drug use as these will affect your symptoms and healing.

2. Pain Medication – do not take any pain medication except Tylenol. Adults should take Tylenol every 4 hours as needed.

3. Activity – activity should be limited for the first 24 hours that do not provoke symptoms, usually this means no work for adults and classroom activity for student-athletes. Avoid loud music, computer use, video games, watching TV and texting.

4. Observation, by someone other than the athlete, several times during the first 24 hours:

   a. Check to see that the pupils are equal. Both pupils may be large or small, but the right should be the same size as the left.
   b. Check the athlete to be sure that he-she is easily aroused; that is, responds to shaking or being spoken to, and when awakened, reacts normally.
   c. Check for and be aware of any significant changes. (See #5 below)

5. Significant changes
Conditions may change within the next 24 hours. Contact your physician and/or go to the nearest Emergency Room if any of the following occur:

   a. Persistent or projectile vomiting
   b. Unequal pupil size (see 4a above)
   c. Difficulty in being aroused
   d. Clear of bloody drainage from the ear or nose
   e. Continuing or worsening headache
   f. Seizures
   g. Slurred speech
   h. Can't recognize people or places – increasing confusion
   i. Weakness or numbness in the arms or legs
   j. Unusual behavior change – increasing irritability
   k. Loss of consciousness

6. Improvement
The best indication that an athlete who has suffered a significant head injury is progressing satisfactorily is that he/she is alert and behaving normally.

Athletic Trainer Phone #_____
University Hospital ER# 801-581-2291

Appendix C: Symptom Diary and Checklist

Student-athlete to rate symptoms a minimum of daily. Student athletes can access this form _____.

Concussion Symptom Chart

Name: **Date:**

Date/Time										
Headache										
Pressure in head										
Neck pain										
Nausea or vomiting										
Dizziness										
Blurred vision										
Balance problems										
Sensitivity to light										
Sensitivity to noise										
Feeling slowed down										
Feeling like “in a fog”										
“Don’t feel right”										
Difficulty concentrating										
Difficulty remembering										
Fatigue or low energy										
Confusion										
Drowsiness										
More emotional										
Irritability										
Sadness										
Nervous or anxious										
Trouble falling asleep										
Symptoms worse with physical activity? (y/n)										
Symptoms worse with mental activity? (y/n)										
If 100% is perfectly normal, what percent do you feel? If not 100, why?										
Total # of symptoms										
Total symptom score										

Rank symptoms 0 to 6, 0 being no symptom and 6 being severe

Appendix D: Return to School Recommendations – for medical providers

In the early stages of recovery after a concussion, increased cognitive demands, such as academic coursework, as well as physical demands may worsen symptoms and prolong recovery. Student-athletes should be re-evaluated by a physician if symptoms worsen with academic and/or ADL challenges. Accordingly, a comprehensive concussion management plan should provide appropriate provisions for adjustment of academic coursework.

The following provides a framework of possible recommendations that may be made by the managing physician (check all that apply):

___ May return immediately to school full days
___ No return to school. Return on (date) _____
___ Return to school with supports as checked below. Review on (date) _____
___ Shortened day. Recommend ____ hours per day until (date) _____
___ Shortened classes (i.e. rest breaks during classes). Maximum class length: _____ minutes
___ Allow extra time to complete coursework/assignments and tests
___ Lessen homework load by _____%. Maximum length of nightly homework: _____ minutes
___ Decrease screen time on devices
___ No significant classroom or standardized testing at the time
___ No more than one test per day
___ Take rest breaks during the day as needed
___ Referral to Learning Specialist through Academic Advisors
___ Referral to Office of Student Services for disability services
___ Referral to ADAAA office

Center for Disability Services
200 S. Central Campus Dr. RM. 162
Salt Lake City, UT 84112
801-581-5020
801-581-5487 fax

Inform the professor(s), Academic Advisors, and administrator(s) about your injury and symptoms. School personnel should be instructed to watch for (Appendix E is a sample letter):

- Increase problems with paying attention, concentrating, remembering, or learning new information
- Longer time needed to complete tasks or assignments
- Greater irritability, less able to cope with stress
- Symptoms worsen (e.g., headache, tiredness) when doing schoolwork

APPENDIX E: Return to Sport Protocol

It is expected that athletes will start in stage 1 and remain in stage 1 until they can perform symptom limited activity as prescribed by health care professional providing care.

The patient may, under the direction of the physician and the guidance of the athletic trainer, progress to the next stage only when assessment has normalized, including symptom assessment, cognitive assessment, and static/dynamic balance assessment with SCAT 6. Normalized scores are achieved when symptoms and scores have improved towards baseline levels.

Utilizing this framework, the student-athlete will progress from stage 1 through stage 6 dependent upon their symptomology and exercise progression.

There may be circumstances, based on an individual's concussion severity, where the return to play protocol may take longer. Under all circumstances the progression through this protocol shall be overseen by the managing team physician.

When the athlete has successfully passed through stage 5 and has previously been evaluated by medical personnel, a verbal clearance may be obtained by a physician or their designee (Athletic Trainer). Otherwise, a physician visit is required before such clearance to return to play will be granted.

Stage	Functional Exercise or Activity	Objective	Tests Administered before advancing to next stage
1. No structured physical or cognitive activity	Basic activities of daily living (ADLs), Symptom-limited light aerobic exercise (i.e.. walking), limited schoolwork	Rest and recovery, avoidance of overexertion	Initial Post-injury test battery: -Symptom checklist -BESS
2. Light Aerobic physical activity	Light exercise at 50-70% maximum heart rate (walking, biking)	Ensure tolerance of raising heart rate above rest	-Symptom checklist
3. Sport Specific exercise without head impact	Sport specific exercise at 70-100% estimated heart rate	Ensure tolerance of regular exercise	-Symptom checklist
4. Non-contact sport specific training drills with progressive resistance training	Non-contact sport specific drills Aerobic activity at 70-100% estimated maximum heart rate; resistance training. Will progress from moderate to full exertion based on being asymptomatic	Ensure tolerance of all regular activities short of physical contact	-Symptom Checklist
5. Full contact practice	Resume all drills and full contact	Ensure tolerance of physical contact	-Medical clearance by team physician
6. Return to Sport	Regular practice and game competition	Ensure Tolerance of full activity	-Educate to report any symptoms or change in behavior