

Liberty University Sports Medicine Concussion / Traumatic Brain Injury Protocol

The Liberty University Sports Medicine Department recognizes that head injuries, particularly sport-induced concussions, pose a significant health risk for those student-athletes participating in intercollegiate athletics at the University. Consequently, Liberty University has implemented policies and procedures to assess and identify those student-athletes who have suffered a concussion.

These policies and procedures are directed and overseen by the team physician for Liberty University Athletics. The Team Physician or designee has final say over all return-to-play decisions. The following components have been identified by the NCAA as a recommended best practice for a Concussion / Traumatic Brain Injury Management Plan.

What is a Concussion?

Concussions are the most common form of head injury suffered by athletes. Due to the complexity of the injury and ever-growing research, a unanimous definition of "concussion" does not exist. A concussion can be caused by a direct or indirect hit to the head or body and can result in a disturbance and/or impairment in neurologic function. When an athlete suffers a concussion, the brain suddenly shifts or shakes inside the skull and can knock against the skull's bony surface. A hard hit to the body can result in an acceleration and/or deceleration injury when the brain brushes against bony protuberances inside the skull. The exact recovery period from this trauma is unclear and will vary from individual to individual.

Following a concussion, the athlete may experience a variety of symptoms. Most concussions occur without a loss of consciousness. It is important to remember that some symptoms may appear right away and some may be delayed. Symptoms, as well as symptom severity, may differ between individuals; however, a combination of symptoms classically occurs.

Some Signs and Symptoms:

Signs:

- Difficulty concentrating
- Inappropriate playing behavior
- Decreased playing ability
- Inability to perform daily activities
- Reduced attention
- Cognitive and memory dysfunction
- Sleep disturbances
- Vacant stare
- Loss of bowel and/or bladder control
- Personality change
- Unsteadiness of gait
- Slurred/incoherent speech
- Loss of consciousness

Symptoms:

- Nausea/vomiting
- Dizziness
- Confusion
- Fatigue
- Light headedness
- Headaches
- Irritability
- Disorientation
- Seeing bright lights/stars
- Feeling of being stunned
- Depression
- Ringing in the ears

Notification of Injury/Symptoms:

Due to the serious nature of this injury and potential dangerous results of returning to activity, concussions need to be recognized and diagnosed as soon as possible. It is required that student-athletes be truthful and forthcoming about their symptoms as soon as they are present. If/when he or she is diagnosed with a concussion, the student-athlete must report symptoms each day until he or she is cleared for full activity by the Team Physician or designee.

Concussion Education:

In accordance with NCAA recommendations, student-athletes will be annually presented with educational materials that provide information about the mechanisms of head injury, as well as the signs and symptoms of a concussion. Subsequently, it will be required that all student-athletes sign the Liberty University Student-Athlete Concussion Statement, a statement accepting the responsibility for truthfully reporting of his or her injuries and illnesses, including signs and symptoms of a concussion.

Additionally, each coach (including volunteer coaches) at Liberty University will undergo concussion education and will be required to sign the Liberty University Coaches Concussion Statement. The NCAA concussion fact sheets will also be given to team physicians, athletic trainers, and the director of athletics. Each party will sign and acknowledge having read and understood the concussion material.

Recognition and Confirmation Diagnosis of Concussion:

When a student-athlete shows any signs, symptoms or behaviors consistent with a concussion, the athlete shall be immediately removed from athletic participation until a thorough sideline head injury assessment can be performed by the Team Physician and/or staff Certified Athletic Trainer.

Medical personnel with training in the diagnosis, treatment and initial management of acute concussion must be "present" at all NCAA varsity competitions and "available" at all NCAA varsity practices, in the following contact/collision sports: basketball, field hockey, football, lacrosse, pole vault, soccer. To be present means to be on site at the campus or arena of competition. To be available means that, at a minimum, medical personnel can be contacted at any time during the practice via telephone, messaging, email, beeper or other immediate communication means. Medical personnel may be from either team, or may be independently contracted for the event. Further, the case can be discussed through such communication and immediate arrangements can be made for the athlete to be evaluated.

The Team Physician and/or staff Certified Athletic Trainer should suspect a concussion if any non-baseline symptoms are detected after a blow to the head. In addition, SCAT5 scores inconsistent with baseline scores should be interpreted as a possible concussion resulting in the removal of the athlete from athletic participation. If a staff Certified Athletic Trainer determines that a student-athlete has or may have a concussion, the staff Certified Athletic Trainer must report that fact to the student-athlete's head coach and the Team Physician. The student-athlete must be evaluated by the Team Physician and/or appropriate qualified medical personnel acceptable to the Team Physician as soon after the concussion as is practical.

Upon removal from activity, medically trained personnel will evaluate the student-athlete for:

- symptom assessment
- physical and neurological exam
- cognitive assessment
- balance exam
- clinical assessment for cervical spine trauma, skull fracture and intracranial bleed.

Furthermore, the concussed student athlete must agree to see the Team Physician and/or appropriate qualified medical personnel as soon after the concussion is practical.

Same Day Return-to-Play:

A student-athlete diagnosed with a concussion shall be withheld from the competition or practice and **will not return to any athletic activity for the remainder of that day** and until cleared by the Team Physician and/or appropriate qualified medical personnel acceptable to the Team Physician.

Referrals:

Upon removal from athletic participation, the student-athlete will receive serial monitoring for signs of deterioration which can cease when the student-athlete stabilizes and improves or in the event the student-athlete's condition warrants a referral according to the guidelines set forth herein.

On-the-Field Immediate Referral:

Upon initial evaluation, activation of the appropriate Emergency Action Plan and subsequent immediate referral to an appropriate emergency treatment facility is warranted with any of the following findings:

- Prolonged loss of consciousness
- Focal neurological deficit suggesting intracranial trauma
- Repetitive emesis
- Persistently diminished/worsening mental status or other neurological signs/symptoms
- Deteriorating level of consciousness
- High index of suspicion of spine or skull injury
- Seizure activity

Off-the-Field Immediate Referral:

In the event that the student-athlete shows signs of deterioration from the status originally assessed on the field, an emergency off the field assessment is required and subsequent immediate referral to an appropriate emergency treatment facility is warranted with any of the following findings:

- Deterioration of neurological signs such as motor, sensory and cranial nerve deficits subsequent to initial on-field assessment
- Deteriorating level of consciousness
- Persistent vomiting
- Post-concussion symptoms that worsen

Non-Immediate Referral:

All student-athletes who have been diagnosed with a concussion will be evaluated by the Team Physician or designee under the direction of the team physician prior to return to unrestricted activity.

Follow-Up Care:

In the event of a concussion, follow-up care and proper education is critical. Due to the necessity of serial monitoring for deterioration of symptoms, the student-athlete will be released under the care of a responsible adult (may be parent or roommate) when discharged from the care of the staff Certified Athletic Trainer and/or Team Physician. The Concussion Take-Home Instructions (See Appendix A) will be explained and given to both the concussed student-athlete as well as a responsible adult. Pertinent contact information will be provided in addition to scheduled follow up appointments.

The concussed student-athlete will be contacted 3-4 hours after discharge and subsequently evaluated by the staff certified athletic trainer or responsible adult to ensure appropriate arousal and cognitive function. If signs and symptoms do not resolve within 14 days, the student athlete will be evaluated by the team physician.

Subsequent Testing:

Concussed student-athletes will be assessed daily with the assistance of the SCAT5 symptom checklist until released by the Team Physician or designee. Student athletes will be given a SCAT5 test within 24 hours of a concussion episode.

Return to Play Guidelines:

Return-to-play is the process of deciding when an injured or ill student-athlete may safely return to practice or competition. It is the goal of Liberty University to return an injured or ill student-athlete to practice or competition without putting the individual or others at undue risk for injury or illness.

Progression will be utilized for return to play. The progression is a step-by-step procedure where exercise is slowly added to the activity level. In severe cases progression to each subsequent stage occurs roughly every 24 hours, based on each individual's status. Progressions are individualized on a case by case basis. The student-athlete may not progress to the next step until deemed appropriate in the current step. The staff Certified Athletic Trainer will be in direct contact with the Team Physician while progressing the student-athlete through the program. Only the Team Physician or designee under the direct supervision of the team physician can give the athlete clearance to return to athletic participation. It is important to note that this timeline could last over a period of days, weeks, months or ultimately result in potential medical disqualification from the participation in Liberty University Athletics. Final determination of return-to-play is from the team physician or medically qualified physician designee.

Each student athlete with a concussion must undergo a supervised stepwise progression management plan by a health care provider with expertise in concussion. The return to play progression is a 6 step process.

1. Limited - Directly after being diagnosed with a concussion, the athlete should have limited physical and cognitive activity.
2. Light aerobic activity without resistance training.
3. Sport-specific exercise- Activity without head impact
4. Non-contact practice with progressive resistance training
5. Unrestricted training
6. Return to Competition

Return to Learn

The team athletic trainer will be the point person within athletics who will navigate return-to-learn with the student-athlete and Academic Affairs for Athletics Department.

Identification of a multi-disciplinary team* that will navigate more complex cases of prolonged return-to-learn:

Multidisciplinary team may include, but not limited to:

- (a) Team physician
- (b) Athletic Trainer
- (c) Psychologist/counselor
- (d) Neuropsychologist consultant
- (e) Faculty athletic representative and/or designee
- (f) Academic Coordinator
- (g) Course instructor(s)
- (h) College administrators
- (i) Office of disability services representatives
- (j) Coaches

Compliance with ADA

No classroom activity on same day as concussion

Individualized initial plan that includes:

- a) Remaining at home/dorm if student-athlete cannot tolerate light cognitive activity
- b) Gradual return to classroom/studying as tolerated
- c) Re-evaluation by team physician if concussion symptoms worsen with academic challenges.
- d) Modification of schedule/academic accommodations for up to two weeks, as indicated, with help from the team athletic trainer

- e) Re-evaluation by team physician and members of the multi-disciplinary team, as appropriate, for student-athlete with symptoms > 2 weeks
- f) Engaging campus resources for cases that cannot be managed through schedule modification/academic accommodations
- g) Such campus resources must be consistent with ADA, and include at least one of the following:
 - (1) Learning specialists
 - (2) Office of disability services
 - (3) ADA office

Reducing Exposure to Head Trauma

- a) Adherence to Interassociation Consensus: Year-Round Football Practice Contact Guidelines
- b) Adherence to Interassociation Consensus: Independent Medical Care Guidelines
- c) Reducing gratuitous contact during practice
- d) Taking a 'safety first' approach to sport
- e) Taking the head out of contact
- f) Coaching and student-athlete education regarding safe play and proper techniques

*All recommendations are based on those outlined in the NATA's Position Statement on Management of Sport Related Concussion & the NCAA Committee on Competitive Safeguards and Medical Aspects of Sports.

Appendix A

Recommendations for Traumatic Brain Injury Home Care

Please read over the following recommendations to ensure proper management of your mild concussion/TBI. If possible, please have a roommate and/or responsible adult in your household read over the following recommendations.

Call EMS (911) and Consult with a Medical Professional Trained in Concussion Identification and Management Practices Immediately If:

- Decreases in Neurological Function
- Decreases in Consciousness
- Decreased or Irregular Breathing
- Decreased or Irregular Pulse
- Changes in Pupils
- Seizure
- Nausea
- Vomiting
- Worsening Headaches or Any Other Symptoms

What You Should Do:

- Take Acetaminophen/Tylenol for Headaches
 - * No ibuprofen or other anti-inflammatories
- Eat Light Nutritious Meals
- Return to School
- Go to Sleep/Rest

What You Should NOT Do:

- Check Eyes with Flashlight
- Wake during Sleeping
- Test Reflexes
- Stay in Bed

Do Not:

- Drink Alcohol
- Eat Spicy Food
- Participate in Strenuous Activities/Sports

*All recommendations are based on those outlined in the NATA's Position Statement on Management of Sport Related Concussion.