

LOUISIANA STATE UNIVERSITY

Athletic Training

Concussion Management Policy

LSU is committed to the prevention, identification, evaluation and proper management of concussions. While we recognize that the medical staff plays an important role in the identification of concussions, all student-athletes are equally responsible for notifying the medical and athletic training staff if they believe they may have suffered a concussion. A coordinated effort will always be made between the medical staff, coaching staff, equipment managers and the student-athlete to ensure the health and safety of the individuals involved in the athletic program at LSU. The following policy and procedures will be adhered to by all involved in the medical care of the student-athletes.

Education Management:

- Student-Athlete
As part of Pre-Participation Physicals, all student-athletes will be asked to complete a number of forms that request disclosure of any concussions (no matter how mild) they may have suffered prior to enrollment at LSU. In addition to discussing their concussion history with a team physician, LSU student-athletes will receive concussion education in the form of a flyer given at the time of physicals (Student-Athlete Statement of Accountability). This flyer provides critical information regarding the facts, signs and symptoms, and the seriousness of concussions. A copy will be kept on file as a part of the Pre-Participation documentation. In addition, posters that are distributed annually by the SEC to provide education to student-athletes and coaches on concussions will be placed in strategic areas in the locker room and/or athletic training rooms at athletic facilities.
- Coaches
At the beginning of the Fall academic year, a presentation will be delivered by the Director of Athletic Training to the Athletic Administration as well as the coaching staff that educates them on the significance and seriousness of concussions. The coaching staff will receive an educational flyer and will sign the Coaches Statement of Accountability acknowledgment form as assurance that they have a general understanding of how concussions can be prevented or how to minimize exposure as well as the impact that concussions have to the short and long term health and well-being of their student-athletes. A copy will be kept on file with the Compliance Department as a part of the annual Athletic Department meeting.
- Medical Staff
At the beginning of the Fall pre-season, the medical staff and all ATCs will familiarize themselves with the policies and procedures for concussion management. Any procedural changes will be discussed at this time. The medical staff will sign the Medical Team Statement of Accountability acknowledgment form to remind them of the responsibility they have to identify, manage, and safely return to play the student-athletes at LSU. A copy will be kept on file with the Compliance Department as a part of the annual re-education process.

Pre-Participation Management:

To ensure the proper evaluation of all student-athletes over the time that they are at LSU, a baseline concussion assessment will be performed on each student-athlete. This extensive assessment tool will involve the following:

- Brain Injury and Concussion History
General medical questions on each student-athlete's history of actual or possible concussions will be asked on the pre-participation physical examination. If a history is identified, an addendum will be completed by the student-athlete that details the significance of his or her head injury history. This addendum is to be reviewed by the team physician before final participation clearance is granted. Pre-participation physical exams are performed annually by our team physicians. Final medical clearance to participate will be determined by the team physician.
- Evaluation
A variety of assessment tools will be used in the baseline evaluation so that a current snapshot of the student-athlete prior to concussion can be documented. A computerized neurocognitive tool (ImPact, C3 Logic or similar module) will be completed by all student-athletes. These baseline scores for cognitive

functioning and balance will be documented and used as a reference point in the event that a concussion is sustained or suspected.

Reducing Exposure to Head Trauma:

With the intent to further educate the coaches and the student-athletes regarding ways to reduce the exposure to head trauma, the following practices are employed at our training and competition venues:

- Annual re-education for coaches and student-athletes to review the signs and symptoms of concussions as well as the importance of reducing the amount of exposures to head trauma, including but not limited to:
 1. Reminders and teaching of proper technique to limit head contact; and
 2. Limiting the amount of contact that ends up on the ground during practice, as ground impact can cause additional head trauma.
- Equipment Inspection
 1. Daily inspection of gear and helmets to ensure proper fit and usage;
 2. Facility inspection prior to activity that may identify additional risk factors that could add to potential concussions (e.g.: unintended equipment on courts or fields, protective padding that covers equipment, and slick playing surfaces); and
 3. Upon the student-athlete's return from a concussion, an "off-colored" jersey will be worn to signify that there is to be "no contact or trauma" with the student-athlete until the jersey has been removed and the student-athlete has received medical clearance to fully participate in practice and competition from the team physician.
- Practice Schedules
 1. Mandate that rules and regulations that are set by the NCAA regarding practice opportunities are followed as their intent is to protect and limit over-exposure to injury (eg: two-a-days, weekly hour rules, off days);
 2. Coaches must be willing to listen to the suggestions of the team physicians and athletic trainers relative to altering practice schedules as to reduce head contact exposure;and
 3. Limiting heat exposure, evaluating hydration status, and providing adequate nutrition are all important factors to providing an effective practice environment that can help in reducing head trauma and injury exposure.
- Research and Education
 1. LSU remains focused on learning and developing the best practices to limit and reduce incidents of injury and head trauma. In doing so, the Athletic Training Department remains thoughtfully engaged in research and data collection that has the potential to positively change the way athletics approaches concussions; and
 2. Using state-of-the-art equipment such as: microchipped mouthpieces, internal and external helmet sensors, and blood-collection studies, we have been able to better assess the physiological response to head trauma. This active research will continue to improve the way we alter our practice and competition habits to ensure an even safer practice and competition environment for our student-athletes.

Recognition and Diagnosis of Concussion:

If a possible concussion has occurred and an initial assessment by a certified athletic trainer or team physician has been completed, the student-athlete will be removed from practice or competition until a complete and full evaluation by a team physician has occurred. It will be necessary to withhold the student-athlete for at least one calendar day if a diagnosis of concussion is confirmed.

- Initial Suspected Concussion Evaluation
 1. Once removed from play or practice, a clinical evaluation must be completed. A physical and neurological exam will be done to determine the significance of the injury. Once it is deemed safe to continue the assessment, additional evaluation tools will be utilized.
 2. The most current version of the SCAT evaluation tool will be implemented to determine the current cognitive state of the student-athlete.
 3. A portion of the evaluation will be directed towards balance and more advanced measures of cognitive ability.

Post-Concussion Management:

If the situation warrants advanced emergency medical care, the Emergency Action Plan will be activated. If immediate transportation to the hospital is necessary, EMS will be called and the team physician will be contacted and fully informed of the student-athlete's current status. The certified athletic trainer will work directly with the team physician in the monitoring of the student-athlete's current medical status or possible deterioration. If any of the following signs are present, the need for emergency medical transport should be imminent:

1. Glasgow Coma Scale <13
2. Prolonged Loss of Consciousness
3. Focal Neurological Deficit suggesting Intracranial Trauma
4. Repetitive Emesis
5. Persistently diminishing/worsening mental status or other signs and symptoms
6. Spine Injury

○ Follow-up Care

1. Once the student-athlete is deemed safe to be released from the care of the medical personnel, they may be released to a responsible individual that will be able to follow basic instructions to assist in the monitoring of the athlete.
2. A Concussion Care Packet will be given to an individual who will be caring for the concussed student-athlete. The name of the individual providing care as well as his or her relationship to the student-athlete will be documented in the medical database.
3. A self-report concussion symptom scale in addition to routine evaluation will be completed within the first 24 hours. Subsequent symptoms scales and evaluations will be done daily or at the request of the team physician.
4. If the doctor feels it is warranted, a prescription of DHA may be given to aid in the recovery and inflammation process that could occur with a concussion. A copy of the letter/RX will be kept in the student-athlete's permanent medical records.

○ Prolonged Recovery Care

If there is not considerable or consistent improvement in the self-reported signs and symptoms of the concussion or an improvement in the evaluation outcome after 7 days, follow-up imaging and/or referral to a neurologist will be considered. Additional diagnoses include but are not limited to:

1. Post-Concussion Syndrome
2. Sleep Dysfunction
3. Migraine or Headache Disorder
4. Mood Disorders such as Anxiety or Depression
5. Ocular or Vestibular Dysfunction

Return to Play:

The concussed student-athlete will not be permitted to return to any physical activity until the signs and symptoms have diminished. During this phase of recovery, there will be close communication with the team physician and/or medical staff. Once a decision is made to return the student-athlete to activity, it must be staged in incremental progression to ensure that a return of signs or symptoms does not occur. If at any point signs and symptoms reappear, cease physical activity and refer the student-athlete to the medical staff for follow-up plan. It is the student-athlete's responsibility to make the certified athletic trainer and team physician aware of the return of any concussion signs or symptoms. At the point in which the student-athlete is being returned to sport and where contact is likely, a different colored jersey should be worn to help identify the student-athlete when he or she has not been cleared for full contact. This off-setting colored jersey will help to remind coaches and fellow student-athletes that they should be avoid activity that could lead to direct head contact.

An example of a return to play progression is as follows:

- Light biking on stationary cycle for approximately 10-15 minutes or unless symptoms of

- concussion reemerge.
- Walking on treadmill with a slow progression in speed and elevation until at a jogging pace. Remain jogging for approximately 10 minutes and remain symptom free.
- Sport-specific exercises and light drills without head contact. These exercises are meant to mimic activities of the sport. Continue with drill type activity for approximately 15 minutes or until symptoms reoccur.
- Non-contact practice can begin and monitored closely. If at any time during practice symptoms return, immediate removal must occur. Follow up with medical staff and/or team physician is required.
- Consideration may be given to return athlete to resistive weight training activity under close monitoring.
- Final medical evaluation and cognitive reassessment testing done to evaluate ready to return status.
- Return to practice and competition.

Return to Learn:

After a concussion diagnosis is made, it is mandatory that a student-athlete will have full cognitive rest for the day of injury. This will include no class, study hall, meetings, etc. After day one, the student-athlete will have an individualized plan for when he or she will return to these activities. This plan will be developed and monitored by the team physician based on the student-athlete's presentation. In the event a student-athlete has any return or worsening of symptoms due to resuming activities he or she will immediately stop the activity and return to full rest. In the event the student-athlete has prolonged symptoms, the student-athlete's athletic trainer, academic advisor, and team physician will develop an individualized comprehensive plan.

A note will be provided by the attending physician to verify potential academic absences. If it is determined that recovery could linger, coordination between the Learning Specialist at the COX Academic Center for Student-Athletes and the Athletic Trainer will occur for short-term disability services to be activated. The Director of Wellness can assist in completion of the required ODS paperwork. Some of the more frequently requested accommodations are:

- Extended Time
- Distraction-Reduced Environment
- No Scantron
- Consideration for Absences
- Class Notes