



Department of Athletics
Sports Medicine

Texas Tech University Concussion Management Plan

The Texas Tech University Concussion Management Plan has been developed in accordance with the Big 12 and NCAA Interassociation Consensus on Diagnosis and Management of Sport-Related Concussion Best Practices to provide quality healthcare services and assure the well-being of each student-athlete at Texas Tech.

PURPOSE:

Texas Tech University Athletics recognizes sport sport-related concussion (SRC) and/or concussions poses a significant health risk for those student-athletes participating in athletics. With this in mind, Texas Tech University, along with the Big 12 and the NCAA has implemented policies and procedures to assess, identify, and manage those student-athletes who have suffered a concussion. Baseline neuropsychological and postural stability testing can provide important comparison data when performing subsequent serial computerized neuropsychological testing as an ancillary assessment in making return to competition decisions for student athletes participating at Texas Tech University. This baseline data along with physical examination, and/or further diagnostic testing will be used in conjunction when determining timing for a student athlete to return to the classroom and to competition.

CONCUSSION DEFINITION:

Concussion is:

- a change in brain function,
- following a direct or impulsive force to the head, which
- may be accompanied by temporary loss of consciousness, but is
- identified in awake individuals, with
- measures of neurologic and cognitive dysfunction.

REDUCING HEAD TRAUMA EXPOSURE MANAGEMENT PLAN

Texas Tech recognizes and follows the Inter-Association Consensus for Independent Medical Care Guidelines as well as the Year-Round Football Practice Contact Guidelines. These guidelines will be reviewed annually with the football coaching staff. Education will also be provided on reducing gratuitous contact during practice, taking the head out of contact and taking a safety first approach to sport. Annually, by signature acknowledgement of Texas Tech University Statement of Expectations, all coaches agree to promote health and safety education, a safe and constructive environment for practice/play, and that the sports medicine staff in conjunction with the medical director and team physicians have the unchallengeable authority to make all medical decisions in regard to a student-athletes' medical care and return to play decisions.

PRE-SEASON EDUCATION:

All student-athletes, coaches, athletic trainers, team physicians, athletics director, and sport administrators will have annual education and/or training appropriate for their position. Once completed, all parties will sign an acknowledgement of understanding of concussion facts and the concussion management plan. This training will address signs and symptoms of concussion to increase recognition and will educate participants on methods for reporting concern for concussion to health care providers.

PRE-PARTICIPATION ASSESSMENT

Student-athletes will have a thorough, documented, review of their concussion and brain injury history when they first arrive on campus as part of their pre-participation physical exam. Student-athletes will 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. Baseline metrics including symptom evaluation, cognitive assessment, and balance evaluation will also be performed. This process must be completed before participation in any organized athletic activity at Texas Tech University. The team physician determines final clearance and/or the need for additional consultation or testing.

BASELINE TESTING AND POST-CONCUSSION TESTING:

SCAT5 / Modified BESS: Sport Concussion Assessment Tool and Modified Balance Error Scoring System

All incoming freshman and transfer student-athletes will have a baseline SCAT5 and Modified BESS test as part of their incoming pre-participation physical.

SCAT5 and Modified BESS Testing results will be interpreted by the team physician in the management of the concussion and in conjunction with neuropsychological testing, and/or any further diagnostic testing to determine when it appears that clinical recovery has occurred and the student athlete will be allowed to gradually increase activity.

Neuropsychological Testing:

All incoming freshman and transfer student-athletes will have a baseline neuropsychological test as part of their incoming pre-participation physical. Baseline testing may be repeated periodically as needed or after a student athlete has recovered from a concussion. Currently, Texas Tech utilizes the ImPACT™ concussion management system.

RECOGNITION AND DIAGNOSIS OF CONCUSSION:

Signs and Symptoms of Concussion:

The recommendations in this protocol for the management of concussions are based on review of the current medical literature (see references) and the Big 12 and NCAA policies for concussion management and are in full cooperation with Texas Tech University Athletics' medical director, team physicians, and athletic training staff.

Certified athletic trainers and athletic training students all need to be aware of the signs and symptoms of concussion to properly recognize and intervene on behalf of the student-athlete. These include, but are not limited to:

Physical Symptoms	Cognitive Symptoms	Emotional Symptoms	Sleep Symptoms
Headache	Loss of Consciousness	Irritability	Drowsiness
Vision Difficulty	Memory Loss	Sadness	Sleeping more than usual
Nausea/vomiting	Attention Disorder	Feeling more emotional	Sleeping less than usual
Dizziness	Reasoning difficulty	Nervousness	Trouble falling asleep
Balance Difficulties	Fogginess	Personality Change	
Light sensitivity			
Sensitivity to noise			
Fatigue			

Medical personnel with training in the diagnosis, treatment, and initial management of acute concussions will be available (as defined by NCAA Sport Science Institute) for all home competitions at Texas Tech University and MUST be onsite at all competitions in the sports of football, basketball, soccer, and pole vault.

Medical personnel with training in the diagnosis, treatment, and initial management of acute concussions must be available (as defined by NCAA Sport Science Institute) during all scheduled practices for all sports at Texas Tech University.

In any circumstance where a concussion is suspected in a student-athlete, the first priority after an initial assessment for cervical spine or associated head trauma, is to remove the student-athlete from further participation until a thorough sideline assessment can be made. Initially, a SCAT-3 sideline evaluation should take place involving a certified athletic trainer and, if possible, a team physician. A sideline postural stability exam will be performed, using the modified BESS Test. Furthermore, if there is a question about the state of mental clearing it is best to err in the direction of conservative management and withhold the athlete from further participation that day until a physician assessment can be arranged.

POST-CONCUSSION MANAGEMENT:

Initiation of an emergency action plan and transportation for further medical care should be considered for any student-athlete who has a Glasgow Coma Scale (GCS) of less than 13, prolonged loss of consciousness, focal neurological deficit suggesting intracranial trauma, repetitive vomiting, persistently diminished/worsening mental status or other neurological signs and symptoms, or suspected spine injury. Emergency Action Plans for each venue are posted in visible areas at every location. Coordination with the EMS is discussed and reviewed annually in coordination with the event management staff. EMS response times for any venue on campus are within 5 minutes for any emergencies that arise during a practice. Any student-athlete identified as having a concussion, either by a team physician or a certified athletic trainer, shall be removed from play for the remainder of the day's participation. It is necessary to schedule further evaluation with a team physician and appropriate follow-up neuropsychological testing as soon as possible upon return to campus for the student-athlete who sustains a concussion while competing in away events. When travelling, the athletic trainer may request evaluation by the host team's team physician before travel home.

Initially, the student-athlete will receive serial monitoring of his/her mental/cognitive status to detect signs of deterioration. The student-athlete (and a companion or guardian who will be with them consistently) will be provided with a closed head injury symptom handout (see appendix) with written discharge instructions and protocol for emergency action in case of symptom deterioration. A symptom inventory shall be performed on a regular basis until an athlete has been deemed to be asymptomatic from his/her concussion. Accommodations will be made to promote physical and cognitive rest for student-athletes after a concussion.

Student-athletes who have a prolonged recovery will be evaluated by the team physician for additional diagnoses and appropriate referral and management options. The Sports Medicine Staff in conjunction with the Medical Director will keep an updated list of outside consultants to be used, when deemed appropriate. Additional diagnoses may include post-concussion syndrome, sleep dysfunction, migraine or other headaches disorders, mood disorders such as anxiety and depression, and ocular or vestibular dysfunction. Final return to play decisions will still be made by the team physician or his/her designee.

RETURN TO LEARN GUIDELINES:

Any student-athlete who has been diagnosed with a concussion or has concussion-like symptoms will be required to follow a return to learn protocol. Unnecessary cognitive stressors should be limited including watching TV, video games, texting, and computer work.

The Sports Medicine staff will notify the sport's academic advisor of a student-athlete's concussion diagnosis or concussion symptoms. The sport academic advisor will work with the Director of Learning Assistance Program/Learning Specialist to coordinate the return to learn plan with the student-athlete. The return to learn protocol includes the following:

Short Term Accommodations (up to two weeks)

1. The Learning Specialist requests documentation from Sports Medicine that includes: injury, date of injury, method of treatment, estimated time for treatment, estimated time frame for recovery and recommended medical accommodations (e.g., Staying at home, medical absence, gradual return to the classroom). Student-athletes should not attend class on the same day as his/her concussion.
***Note: Only a professor has the authority to "excuse" a student from class
2. The Athletic Academic Advisor provides the documentation from Sports Medicine to the Learning Specialist.
3. The Athletic Academic Advisor provides guidance to the Student-Athlete in contacting Professors/Instructors regarding the student's injury, recommended classroom absences, and any arrangements for making up missed assignments.
4. If symptoms worsen with progression of academic challenges or if symptoms last longer than 2 weeks, the student-athlete will be re-evaluated by the team physician.
5. The Sports Medicine staff will notify the Athletic Academic Advisor when the student-athlete has been cleared medically.

Long Term Accommodations (2 weeks or more)

If the student-athlete will not be cleared medically after two weeks, the Sports Medicine Staff will notify the Athletic Academic Advisor and/or Director of the Learning Assistance Program/Learning Specialist that long-term support is needed. A multi-disciplinary approach will be utilized and the following will also be provided to the student-athlete:

- a. Student-athlete will meet with the Learning Specialist to complete an application for Student Disability Services (SDS)
 - i. A student must register with Student Disability Services and file appropriate documentation to be eligible for academic accommodations. (*Texas Tech Operating Policy 34.22: Establishing Reasonable Accommodation for Students with Disabilities*)
- b. The Learning Specialist emails the student-athlete's application and the medical documentation to SDS.
 - i. The Learning Specialist in conjunction with SDS will ensure compliance with Americans with Disabilities Act Amendments Act, ADAAA.
- c. The Learning Specialist schedules the private student-athlete intake meeting with Student Disability Services Assistant Director
 - i. Student Disability Services Intake Meeting - In addition to receiving the letter of accommodation, the associate director explains the students' rights and responsibilities, academic expectations, and general guidelines about utilizing temporary (until the end of the semester) academic accommodations.
 - ii. A list of eligible Accommodations is saved in student-athlete's file in the Marsha Sharp Center (MSC).

The university-approved mechanism for establishing reasonable accommodation is written notification in the form of a Letter of Accommodation from Student Disability Services. The Letter of Accommodation is emailed to the student athlete's faculty that indicates the student athlete has given proof of her/his disability and that the accommodation noted is considered appropriate and reasonable. No further proof of disability should be required of the student. Students presenting other kinds of verification should be referred to Student Disability Services for the appropriate identification. No requirement exists that accommodation be made prior to completion of the approved university process. (*Texas Tech Operating Policy 34.22: Establishing Reasonable Accommodation for Students with Disabilities*)

Note: If the student athlete's symptoms continue past the current semester and he/she requests continuing accommodations for the following semester, additional documentation with an updated prognosis will be required by Student Disability Services.

RETURN TO PLAY GUIDELINES:

Any student-athlete who has been diagnosed with a concussion is required to follow a return to play protocol after receiving clearance from the team physician. The team physician will decide if outside consultation is necessary and will make the appropriate referrals at that time. The team physician will utilize all available information (symptom evaluation, cognitive and physical evaluation, balance assessment, neurocognitive testing, and/or other diagnostic testing) to determine clearance. The return to play protocol will begin after a period of rest and gradual reintroduction of daily activities. The student athlete will have limited physical and cognitive activity until he/she has returned to baseline. He/she will be supervised and follow a stepwise progression that will include:

- Light aerobic exertion without resistance training
- Sport specific activity without head impact
- Non-contact practice with progressive resistance training
- Contact drills/practice
- Return to game activity (per clearance by team physician or team physician's designee)

Upon cognitive and/or physical exertion, a student-athlete must remain asymptomatic and with no new symptoms associated with his/her concussion in order to progress to the next level of activity.

If a student-athlete has a return of symptoms or develops new symptoms during any part of the progression, the student-athlete will drop back to the last asymptomatic level for at least 24 hours and then resume the progression at the previous asymptomatic stage. .

The student-athlete must be re-integrated academically before final return to play clearance is granted.

Clinical evaluation of post-concussive symptoms, prior concussion history, neurological examination, and any outside diagnostic testing deemed necessary will be utilized by the team physician in establishing a timeline for a student-athlete to return to activity. It is important to note this timeline could last from a period of days to weeks or even months, and could possibly result in eventual medical disqualification from Texas Tech University Athletics. All cases will be handled on a case-by-case basis.

The decision by the Team Physician for all cases of an athlete's return to activity is final. Medical clearance to return to competition is based on current best practices, existing evidence based information and consensus statements, clinical examination, and completion of all required testing. Medical clearance does not guarantee against future adverse outcomes or eventual complications.

APPENDICES:

NCAA/CDC Concussion Fact Sheet for Athletes

NCAA/CDC Concussion Fact Sheet for Coaches

Texas Tech University Concussion Education Acknowledgement

SCAT5 Sideline Evaluation Sheet

Texas Tech University Post Concussion Take Home Sheet

Texas Tech University Symptom Inventory Sheet

REFERENCES:

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3. NCAA Football Practice Guidelines. Accessed at <http://www.ncaa.org/health-and-safety/football-practice-guidelines>.
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