

## **BAYLOR UNIVERSITY CONCUSSION MANAGEMENT PLAN**

The Baylor University Athletics Department is committed to the health and wellness of the student athlete. The purpose of this policy is to ensure optimal concussion care for the student athletes and provide institutional compliance with NCAA Concussion Safety Protocol Legislation. This policy is based on current published concussion diagnosis and management best practices and will be reviewed at least annually to ensure the policy remains consistent with current concussion best practices.

### **Education**

The Concussion Management Plan will be included in the Student-Athlete Handbook and reviewed with each sport program annually. Every student-athlete must sign a form acknowledging that he/she has read the Plan and has had the opportunity to ask questions about it before they are allowed to practice.

Concussion recognition and treatment is a team process where many members of the athletic department are involved. The following athletic department members will annually be taught the signs and symptoms of a concussion by using the NCAA Concussion Fact Sheets, reading the Baylor University Concussion Management Plan and the signing of the Concussion Acknowledgement Form: student-athletes, coaches, team physicians, athletic trainers and athletic administrators.

### **What is a Concussion?**

A concussion is defined as a complex pathophysiological process affecting the brain, induced by traumatic biomechanical forces. Several common features that incorporate clinical, pathologic and biomechanical injury constructs that may be utilized in defining the nature of a concussive head injury include:

1. Concussion may be caused either by a direct blow to the head, face or neck or a blow elsewhere on the body with an "impulsive" force transmitted to the head.
2. Concussion typically results in the rapid onset of short-lived impairment of neurologic function that resolves spontaneously.
3. Concussion may result in neuropathological changes but the acute clinical symptoms largely reflect a functional disturbance rather than a structural injury.
4. Concussion results in a graded set of clinical symptoms that may or may not involve loss of consciousness. Resolution of the clinical and cognitive symptoms typically follows a sequential course. In a small percentage of cases, however, post-concussive symptoms may be prolonged.
5. Concussion will show no abnormality on standard structural neuroimaging studies.

### **Signs and Symptoms of a Concussion:**

Concussions may cause abnormalities in clinical symptoms, physical signs, behavior, balance, cognitive, and/or sleep. Signs and symptoms include, but are not limited to:

- Headache
- Loss of consciousness
- Visual disturbances
- Confusion or disorientation
- Amnesia
- Dizziness or balance problems
- Slurred or incoherent speech
- Vacant stare or dazed
- Inability to focus
- Delayed verbal or motor responses
- Ringing in ears
- Irritability Emotional ability
- Fatigue or feeling slowed down
- Excessive drowsiness
- Sleep disturbances

**Personnel:**

A certified and/or licensed athletic trainer with training in the diagnosis, treatment and management of concussions shall be present for all NCAA varsity competitions of high risk sports including but not limited to the following contact/collision sports: basketball; equestrian; football; pole vault; soccer. A certified and/or licensed athletic trainer with training in the diagnosis, treatment and management of concussions will be available on site for all NCAA varsity practices for the contact/collision sports listed above as well as available on-site or on call for the other sports sponsored by Baylor Athletics not mentioned.

**PPE/Baseline Testing:**

Baseline assessment for each student-athlete will be obtained prior to the first date of practice in all sports. The assessment will include concussion history, physical examination, a sideline performance assessment tool, and computerized neurocognitive testing provided by the XLNTbrain, LLC software system. The team physician will determine pre-participation clearance and/or the need for additional consultation or testing. The same baseline assessment tools will be used post-injury at appropriate time intervals. The athletic trainer will administer the baseline assessment, as well as the subsequent tests, and the results shall be evaluated by a team physician.

If a student-athlete has suffered a documented concussion they are required to establish a new baseline test. Such test must be conducted at least six (6) months following their latest concussion and the results from this later test shall be established as their new baseline. In addition, as cognitive function can change with time, repeat baseline testing may be performed during a student-athlete's third year of enrollment.

**Evaluation:**

Any student-athlete exhibiting signs and symptoms of a concussion will be immediately removed from play and evaluated by a team physician or athletic trainer with concussion management experience. The initial evaluation of a suspected concussion will be performed utilizing the XLNTbrain concussion management software. The evaluation process includes concussion history, physical and neurological examination, symptom checklist, sideline performance assessment tool, neurocognitive testing and balance evaluation. In the event that the XLNTbrain software is not accessible a SCAT5 assessment instrument should be utilized. Following the completion of the SCAT5, the document should be uploaded to the XLNTbrain software system. A student-athlete diagnosed with a sport-related concussion should not be allowed to return-to-play in the current game or practice and should be withheld from the athletic activity for the remainder of the day. The student-athlete shall be serially monitored by the appropriate medical personnel for deterioration and will be provided with written instructions if discharged home after suffering a concussion.

**Emergency Plan:**

Any student-athlete with severe symptoms, progressive or worsening signs and symptoms, and/or signs of symptoms of an associated injury will be transported immediately per the venue specific institutional medical emergency action plan. Student-athletes suspected cervical spine trauma, skull fracture, and/or intracranial bleeding shall be stabilized and transported to emergency facilities.

Any student-athlete with the following signs: Glasgow Coma Scale <13, Prolonged loss of consciousness, focal neurological deficit suggesting intracranial trauma, repetitive emesis, persistently diminished/worsening mental status or other neurological signs/symptoms, or spine injury will activate the Emergency Action Plan and be transported for further medical care.

**Referral to a Physician:**

Student-athletes who experience a concussion and exhibit associated symptoms, including but not limited to, loss of consciousness, worsening signs or symptoms, sleep dysfunction, migraine or other headache disorders, mood disorders such as anxiety and depression, ocular or vestibular dysfunction and/or post-concussive signs or symptoms lasting greater than 24 hours will be referred to a team physician for additional evaluation.

**Follow-up Evaluations:**

Following the initial evaluation and the student-athlete leaving the facility, a responsible adult will be placed in charge of the student-athlete and instructed on the signs and symptoms of a concussion. They will be given the Home Instruction for Concussions Form and emergency contact information as additional resources. The student-athlete will be re-evaluated the day after the concussion. The student-athlete will have daily symptom follow-up evaluations that will include the use of the XLNTbrain concussion management software which includes a current daily symptom checklist.

**Return to Play:**

Student-athletes suffering a concussion must be cleared by a team physician or medically qualified designee with concussion management experience before returning to play.

Student-athletes suffering a concussion may begin limited, non-contact physical activity under the supervision of their athletic trainer as specifically directed by the team physician when concussion symptoms are mild and the physical activity does not exacerbate the symptoms. This limited, non-contact activity can progress in intensity under the supervision of the athletic trainer as long as concussion symptoms do not increase during or following the activity.

Once symptom free, student-athletes will begin a return to play progression. Student-athletes must progress through each step listed below without his/her condition becoming worse before he/she will be allowed to return to activity and play. If during the course of the progressive

steps any signs or symptoms reoccur or if new symptoms develop, the student-athlete must return to the previous step until the signs or symptoms no longer occur. The student-athlete must also complete a return to play checklist and sign/acknowledge each step of the return to play protocol.

- (Step 0: Asymptomatic)
- Step 1: Light aerobic exercise without resistance training
- Step 2: Sport-specific exercise and activity without head impact
- Step 3: Non-contact practice with progressive resistance training
- Step 4: Unrestricted training
- Step 5: Return-to-competition

The student-athlete must return to baseline as indicated through the XLNTbrain concussion management software system and physician return to activity clearance before he/she will be allowed to return to play.

### **Multiple Concussions:**

Any student-athlete suffering two or more concussions within the same calendar year shall not be eligible to return to activity until evaluated and cleared by a team physician.

### **Return to Learn:**

The return to learn will be coordinated by the sport specific athletic trainer. The student-athlete will not be allowed to return to any classroom activity which includes study hall and/or tutoring sessions on the same day as a concussion.

For more severe cases a multi-disciplinary team will be formed to coordinate treatment and rehabilitation. The team will be formed on a case by case basis including the team physician and athletic trainer with the following positions added as deemed necessary: psychologist/counselor, neurologist, neuropsychologist, academic counselor, course instructor(s), Office of Access and Learning Accommodation, and/or coaches.

Student-athletes with symptoms of a concussion will be given an individualized plan to coordinate the return to academics.

Accommodations for student-athlete suffering concussion symptoms include, but are not limited to the following:

- Remain at home/dorm if the student athlete cannot tolerate light cognitive activity.
- Gradual return to classroom/study as tolerated.
- Re-evaluation by team physician if concussion symptoms worsen with academic challenges.
- Modification of schedule/academic accommodations for up to 2 weeks, as indicated, with help from the identified point-person.
- Re-evaluation by team physician and members of the multi-disciplinary team, as appropriate, for student athlete with symptoms greater than 2 weeks.

The Baylor University Office of Access and Learning Accommodations (OALA) will be consulted when the student-athlete has medical issues that require accommodations in the classroom as deemed necessary by the athletic trainer and/or team physician and will be used to coordinate such accommodations with faculty and staff.

OALA will engage campus resources for cases that cannot be managed through schedule modification/academic accommodations and will make sure that all federal and state regulations are followed for accommodations including but not limited to ADAAA regulations.

### **Reducing Exposure to Head Trauma:**

Baylor University is committed to making sure that student-athletes are able to participate in their sport in a safe manor. This will be accomplished by the following methods:

1. Provide safe areas for practice and competition
2. Proper Protective Equipment
3. Proper Coaching Techniques
4. Provide the ability of sport administrators or medical staff to deem an activity unsafe.