

# Concussion Plan



# Departmental Concussion Guidelines

The following guidelines have been developed in accordance with Alabama A&M's Mission Statement and service goal of providing quality healthcare services and assuring the well being of each student-athlete under our care. For the duration of this document, the term *concussion* will be defined as the temporary impairment of brain function caused by a violent shaking or jarring action to the brain, usually as a result of impact with an object or the ground.

## Purpose:

The Alabama A&M Athletics Department recognizes that sports related concussions pose a significant health risk to those student-athletes participating in athletics. Because of this risk, AAMU developed these guidelines to help assess and identify those student-athletes who have suffered a concussion. AAMU also recognizes that baseline neuro-cognitive testing is a key component in helping to decide return to competition decisions for student-athletes who participate in collision and/or contact sports. This baseline data along with physical examination, and/or further diagnostic testing will be used in order to determine when, if at all, it is safe for a student-athlete to return to competition. These guidelines will be reviewed periodically to determine their success in providing care to the student-athlete, as well to as to remain current with the research and details of concussion management.

## Concussions Grading System

<b>Grade 0</b>	<b>No loss of consciousness. Mild confusion but asymptomatic in 20 minutes; passes functional tests without recurrence of signs or symptoms. Headache may develop later.</b>
<b>Grade 1</b>	<b>No loss of consciousness. Either post-traumatic amnesia or post-concussive symptoms clear in less than 30 minutes.</b>
<b>Grade 2</b>	<b>Loss of consciousness lasting less than 1 minute; post-traumatic amnesia or post-concussive symptoms lasting longer than 30 minutes but less than 24 hours.</b>
<b>Grade 3</b>	<b>Loss of consciousness lasting longer than 1 minute or post-traumatic amnesia lasting longer than 24 hours; post-concussive signs or symptoms lasting longer than 7 days.</b>

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

Certified Athletic Trainers, Team Physicians, and School Administration all need to be aware of the signs and symptoms of concussion to properly recognize and intervene on the behalf of the student-athlete.

- Irritability
- Mental Confusion & inability to focus attention
- Delayed verbal & motor responses
- Slurred or incoherent speech
- Gross observable in coordination
- Emotions out of proportion to circumstances
- Any period of loss of consciousness
- Drowsiness or unusual laziness
- Numbness or weakness in extremities
- Sensitivity to light or noise
- Increasing or persistent headache
- Vacant Stare
- Dizziness
- Disorientation
- Memory deficits
- Convulsions
- Visual problems
- Loss of appetite
- Abnormal pupil size
- Fluid from ear or nose
- Nausea/ vomiting
- Difficulty concentrating

## **Baseline Testing:**

Alabama A&M will use the Standardized Assessment of Concussion (SAC), particularly the SCAT2, which is a series of questions that tests orientation, immediate memory, concentration, and delayed memory to measure immediate neurocognitive effects of a student-athlete. The use of this SCAT2 test will provide a baseline for the student-athlete's "normal" pre-injury performance. During the first year of the implementation of these guidelines, *all athletes* who fall into the following sport-participation categories will undergo baseline SCAT2 testing. The following years/seasons, only incoming freshmen, transfers, or athletes who have been assessed as having a concussion will undergo baseline SCAT2 testing.

The following sports will be *required* to submit to baseline SCAT2 testing:

Football                      M/W Basketball                      Baseball                      Softball                      M/W Soccer

## **Concussion Management**

At any time a concussion is suspected in an athlete, the first priority is to remove the athlete from any further competition until a thorough sideline evaluation assessment can be made. In the case of concussions of Grade 1 or greater, AAMU will withhold the athlete from any further competition until a physician assessment can be arranged.

## Sideline Management of Concussions

Grade of Concussion	Sideline Management
0	Remove from competition. Athlete assessed every 5 minutes until post-concussive confusion has cleared and performs a SCAT2 test. If athlete continues to be symptom free, then he/she will perform exertional tests. Recommended asymptomatic for 20 minutes may return to competition.
1	Remove from competition. Athlete assessed every 5 minutes until post-concussive confusion has cleared and performs a SCAT2 test. May not return to current competition even if symptoms clear. Athlete will be referred for evaluation to team physician.
2	Remove from competition. Assess the athlete for post-concussive clearing of his/her confusion every 5 minutes for the first 30 minutes, then every 15 minutes until symptoms resolve. Athlete performs a SCAT2 test and will not return to current competition. Athlete will be referred for evaluation to team physician.
3	<b>If athlete remains unconscious, he/she should undergo cervical spine immobilization and be transported by EMS to the nearest ER. If the athlete has prolonged post-concussive confusion, evaluation should be conducted by team physician or be transported to the nearest ER in an expedient manner.</b>

Alabama A&M Sports Medicine Staff recognizes that it may be impossible for neurocognitive/diagnostic testing to take place within a 24-hour time frame because of travel, time of the week that the incident occurs, and other difficulties. It is necessary to plan for neurocognitive/diagnostic testing as soon as possible for the student-athlete, when they return home and for an evaluation with the team physician.

All athletes assessed with a concussion will be documented (player name, position, circumstance of injury, duration of confusion, and any post-concussive symptoms).

**Long-term Management of Concussions**

Grade Type	First Concussion	Second Concussion	Third Concussion
Grade 0	May return to competition same day if asymptomatic for 20 minutes and passes all concussion related tests.	Athlete is removed from competition. Mandatory physician evaluation to be performed to determine the length of time held out of competition. Earliest possible return after asymptomatic for 1 week.	Athlete will be removed from competition. Mandatory physician evaluation to determine release to full athletic competition.
Grade Type	First Concussion	Second Concussion	Third Concussion
Grade 2	Athlete is removed from competition. Mandatory physician evaluation. Earliest possible return after asymptomatic for 1 week.	Athlete is removed from competition for a minimum of 1 month. Mandatory physician evaluation. Consider return to play if asymptomatic for 1 week (following 1 month removal); consider terminating the season.	Athlete is removed from competition. Mandatory physician evaluation. Recommended terminate season; may return next season if asymptomatic.
<b>Grade 3</b>	<b>Athlete is referred immediately to Emergency Room for an extensive medical evaluation and testing. Minimum 1 month removal from competition; mandatory team physician evaluation; consider terminating the season.</b>	<b>Terminate season; may return next season if asymptomatic and possibly out for one full calendar year.</b>	

## **Return-to-Play Guidelines**

The return to play guidelines following a concussion follows a step-by-step process:

1. No activity, complete rest. (Objective: Recovery)
2. Light aerobic exercise such as walking or stationary cycling. No resistance training. (Objective: Increase heart rate)
3. Sport specific exercise (i.e. running in soccer, agility drills for football), progressive addition of resistance training at steps 3 or 4. (Objective: Add movement)
4. Non-contact training drills (Objective: Exercise, coordination, and cognitive load)
5. Full contact after medical clearance. (Objective: Restore confidence and assess functional skills by coaching staff)
6. Game play.

During this step-by-step progression, each level will be handled in 24-hour increments. The athlete should only progress to the next level if they are asymptomatic at the current level. If the athlete shows any post-concussion symptoms, then the athlete should revert back to the previous level and try again after 24 hours. Step 5 is *not equivalent* to a game-time situation. An athlete *must* participate in at least one (1) full-contact practice before game participation will be recommended.

An additional consideration in these return-to-play guidelines is that the injured athlete should not only be symptom free but also should not be taking any medications that may modify or affect the symptoms of a concussion. Physician referral is recommended in any case regarding medication for symptoms of a concussion.

## **Summary**

Although these guidelines are recommended to be followed by the Alabama A&M Sports Medicine Department, the determinants of return-to-play criteria for each individual athlete have many factors. Continued post-concussive symptoms, prior concussion history, and any diagnostic testing results along with neurocognitive testing and physical exam, will be utilized by the team physician in establishing a timeline for the athlete to return to competition. It is important to note that this timeline could last days, weeks, or even months, or potential medical disqualification for one calendar year. Concussions will affect each individual in a different manner, which is why each injury will be handled on an individual basis. The final decision for when the athlete will return to play will be determined by the school's assigned team physician.

The following documents and official statements on concussion management have been consulted and researched in order to shape these guidelines. Those documents and statements include:

- The University of North Carolina's Concussion Grading Scale
- Cantu's Concussion Grading Scales
- James Madison University Sports Medicine's Concussion Assessment, Management, and Return to Play Guidelines
- Plymouth State Athletic Training's Concussion Assessment, Management, and Return to Play Guidelines
- National Athletic Trainers Association
- American Academy of Neurology
- Robert C. Cantu, M.D.
- Colorado Medical Society

- Consensus Statement on Concussion in Sport – The 3<sup>rd</sup> International Conference on Concussion in Sport, held in Zurich, November 2008
- Huntsville Hospital Therapy and Sports Center Concussion Management Plan 2009-10
- Recommended Best Practices for a Concussion Management Plan for all NCAA Institutions 2010

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