

Michigan State University
Department of Intercollegiate Athletics
Concussion Management Guidelines
March 14th, 2019

1. MSU student athletes will undergo baseline neurocognitive testing using instruments and protocols approved by the Head Athletic Trainer and the Director of Sports Medicine and Performance. Current testing includes the computerized IMPACT testing system and BESS testing. Updated testing will be completed every 2 years following the initial baseline testing completed at Pre-Participation Physicals. Symptom evaluation along with additional history of brain injury and management will be included in the PPPE. The Team Physician will determine pre-participation clearance once the above are completed.
2. Prior to each competition season, all student athletes, coaches, appropriate additional administrative staff, including the Director of Intercollegiate Athletics, Staff Athletic Trainers and Team Physicians will be presented information on appropriate reporting of head injuries to medical personnel. As part of this education process, each participant will complete and sign the education forms provided by the Big Ten conference.
3. In the event of a head injury, the designated student athlete shall be held from participation until appropriate medical personnel have been consulted.
4. Any student athlete suspected of incurring a concussion will be immediately evaluated by medical personnel at the site. This evaluation will be completed using an approved standardized tool (for example, SCAT 2 or 3). A thorough musculoskeletal cervical spine examination and neurological evaluation will be completed to assess for cervical spine trauma, skull fracture and intracranial bleeds. The results of the initial and any subsequent evaluation will be entered into the student athlete's permanent medical record.
5. Any student athlete suspected of incurring a concussion will not be allowed to return to play that day and must be evaluated by:
 - a. The Team Physician for that sport (or designee)
 - b. A staff Athletic Trainer or
 - c. The on-site Athletic Trainer in consultation with the Team Physician or staff Athletic Trainer.
6. Any student athlete held from play will be subsequently evaluated using available clinical tools along with IMPACT and Balance testing until resolution of the injury. Return to practice and play will be governed by current recommendations from the NCAA/Big Ten and the 4th International Conference on Concussion in Sport. These include:
 - a. Restriction of activity until symptoms resolve

- b. Return to activity when asymptomatic following the graduated return to play criteria set forth in the 4th International Conference on Concussion in Sport
 - c. No return to play will occur until asymptomatic with exertion
- 7. Activity restriction for a student athlete diagnosed with a concussion will include involvement of the Student Athlete Academic Support Services personnel where appropriate. Additional academic support to complement athletic restrictions will be included on a case by case basis.
- 8. Any student athlete diagnosed with a concussion will be supplied with written instructions of neurological care for immediate follow-up of the injury. Wherever possible, the athlete will be discharged under the observation of a companion. (See attachment A)
- 9. All Big Ten and NCAA directed mandates will be followed per recommendations by each, including; Neurology sideline coverage, press box spotting, etc.
- 10. Medical personnel with training in the diagnosis, treatment and initial management of acute concussion must be present at all NCAA varsity competitions in the following contact/collision sports: basketball; equestrian; field hockey; football; ice hockey; lacrosse; pole vault; rugby; skiing; soccer; wrestling. To be present means to be on site at the campus or arena of the competition. Medical personnel may be from either team, or may be independently contracted for the event.
- 11. Medical personnel with training in the diagnosis, treatment and initial management of acute concussion must be available at all NCAA varsity practices in the following contact/collision sports: basketball; field hockey; football; ice hockey; lacrosse; pole vault; rugby; skiing; soccer; wrestling. 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 direct communication means, through which the incidence of concussion (actual or suspected) can be discussed and arrangements for the student-athlete's evaluation can be made.
- 12. A post-concussion management plan that specifies:
 - a. Emergency action plan, including transportation for further medical care, for any of the following:
 - i. Glasgow Coma Scale <13
 - ii. Prolonged LOC
 - iii. Focal neurological deficits suggesting intracranial trauma
 - iv. Repetitive emesis

- v. Persistently diminished/worsening mental status or other neurological signs/symptoms
 - vi. Spine injury
- b. Mechanism for serial evaluation and monitoring after injury.
- c. Documentation of oral and/or written care to both the student-athlete and another responsible adult, may be parent or roommate.
- d. Evaluation by a Physician for a student-athlete with prolonged recovery in order to consider additional diagnosis and best management options, including but not limited to; post-concussive syndrome, sleep dysfunction, migraine or other headache disorders, Mood disorders, ocular or vestibular dysfunction.

13. A return to play management plan that specifies:

- a. Final determination of return to play is from the Team Physician or medically qualified physician degree.
 - i. A stepwise progression management plan will occur once the student athlete has resolved their physical and cognitive limitations. This will be coordinated by a health care provider with expertise in concussion and will progress each step with no worsening or new symptoms, and will include:
 - 1. Light aerobic exercise without resistance training
 - 2. Sport specific exercise and activity without head impact
 - 3. Non-contact practice with progressive resistance training
 - 4. Unrestricted training
 - 5. Return to competition

14. A return to learn management plan that specifies:

- a. Identification of a point person within the Athletic department who will navigate return to learn with the student athlete.
- b. Identification of a multidisciplinary team that will navigate more complex cases of prolonged return to learn when indicated.
- c. Compliance with ADAAA
- d. No classroom activity on the same day as the concussion.
- e. Individualized plans that may include:
 - i. Remaining at home/dorm if the student athlete cannot tolerate light cognitive activity
 - ii. Gradual return to classroom/studying as tolerated
- f. Re-evaluation by the team physician if concussion signs/symptoms worsen with academic challenges.
- g. Modification of schedule/academic accommodations for up to two weeks, when indicated, with help from the identified point person.
- h. Re-evaluation by the Team Physician and members of the multidisciplinary team set forth, for a student athlete with symptoms lasting longer than two weeks, when indicated. Including:
 - i. Team Physician
 - ii. Athletic Trainer

- iii. Psychologist/Counselor
- iv. Neuropsychologist consultant
- v. Athletic faculty representative
- vi. Academic counselor
- vii. Course instructor(s)
- viii. University administrators
- ix. Office of disability service representative
- x. Coaches

- i. Engaging campus resources for cases that cannot be managed through schedule modification/academic accommodations.

- i. Such campus resources must be consistent with ADAAA, and include at least one of the following:

- 1. Learning specialists
 - 2. Office of disability services
 - 3. ADAAA office

- 15. A reducing exposure to head trauma management plan will be instituted utilizing programs in place to reduce exposures and follow stated consensus programs relative to practice, head contact, safety and medical care for student athletes.

Attachment A

Home Instructions

WHAT YOU SHOULD KNOW:

A minor head injury can cause the brain to have trouble working normally for a short time. Minor head injuries are usually not a serious problem. They are most often caused by a blow to the head. The first 24-48 hours are essential in monitoring symptoms from a head injury. Instructions for home monitoring will assist in caring for the head injured athlete.

INSTRUCTIONS:

Medicines:

Keep a written list of what medicines you take, the amounts, and when and why they are taken. Bring the list of your medicines or the pill bottles when you visit your [caregiver](#). Ask your caregiver for more information about the medicines. Do not take any other medicines without first asking your caregiver. This includes prescriptions, over-the-counter drugs, vitamins, herbs, or food supplements.

Always take your medicine as directed by [caregivers](#). Call your caregiver if you think the medicines are not helping. Call if you feel you are having side effects. Do not quit taking the medicines until you discuss it with your caregiver.

Take acetaminophen (a-seet-a-MIN-oh-fen) or ibuprofen (i-bu-PRO-fen) for headache or [neck pain](#) if your caregiver says it is OK.

Keep all appointments:

Ask your caregiver when to return for a follow-up visit.

Home Care:

Waking: You will need to have someone wake you at different times during the night. Ask your caregiver how often you need to be woken up and for how long. Also, have them ask you a few questions to see if you are thinking clearly. An example would be to ask your name or your address.

Rest: Rest in bed or do quiet activities for the first 24 hours. You may begin normal activities again after you are cleared to do so by a Physician or designated Health Care Provider.

CONTACT A CAREGIVER IF:

You are vomiting. You seem more sleepy, or are harder to wake up than usual.

Your symptoms get worse during the first several days after the injury.

You have new headaches that are very bad, or that get worse in the days after the injury.

SEEK CARE IMMEDIATELY IF:

- You are vomiting.
- You have increasing confusion or a change in personality.
- You have blood or clear fluid coming out of the ears or nose.
- You do not know where you are, or you do not recognize people that are familiar.
- You have new problems with vision (blurry or double vision).
- Your speech becomes slurred or confused.
- You have arm or leg weakness, loss of feeling, or new problems with coordination (balance and movement).

You or someone with you should dial 9-1-1 or 0 (Operator) for an ambulance if :

- Your pupils (black part in the center of the eye) are unequal in size, and this is new for you.
- You have a seizure (convulsion).
- Someone tries to wake you and cannot do so.
- You stop responding to others or you pass out (faint).

Read more: <http://www.drugs.com/cg/minor-head-injury-aftercare-instructions.html#ixzz0qZk5jyhV>

