

MARYLAND

SPORTS MEDICINE

This memo serves as the University of Maryland's certificate of compliance with NCAA Constitution 3.2.4.18 and 3.2.4.18.1, Concussion Safety Protocol. The University of Maryland acknowledges that it has complied with the policy set forth by submitting its annual concussion plan to the NCAA Program Hub Portal as part of the Concussion Safety Protocol Review Process.



David Klossner
Associate Athletics Director/Sports Performance
Athletics Health Care Administrator

4-30-19

Date



Valerie Cothran, MD
Head Team Physician/Medical Director

4/30/19

Date

Mild Traumatic Brain Injury (mTBI) / Concussion Policy and Management Plan

{revised 2018}

OVERVIEW

Our concussion policy and concussion management plan have been developed over the past several years, and is derived from the most recent literature on sport-related concussion.

Concussion is a brain injury and is defined as a complex pathophysiological process affecting the brain, induced by biomechanical forces. A concussion may be caused either by a direct blow to the head, face, neck or elsewhere on the body with an “impulsive” force transmitted to the head. The majority of concussions resolve in a short period, although the recovery time frame varies for each student-athlete.

POLICY

Maryland student-athletes with concussion-like signs and symptoms will be removed from activity and evaluated by a sports medicine staff member with concussion expertise. In the event of a suspected concussion, the concussion management plan provides the sports medicine staff with the objective information necessary to return the athlete to play safely.

PLAN & PROCEDURES

The following plan has been adopted by the University of Maryland Sports Medicine Department and is to be followed by all teams for managing athletes suspected of sustaining a concussion.

1. Maryland shall have on file a written team physician–directed concussion management plan. A Team Physician is responsible for overseeing the implementation of the concussion management plan and overseeing return to play decisions. A University of Maryland Licensed Athletic Trainer acts under the direction of a Team Physician and will assist with the implementation of the concussion management plan.
2. Maryland will provide NCAA concussion fact sheets and other applicable material annually to student-athletes, coaches, team physicians, athletic trainers, and the Director of Athletics.
 - All parties will be required to sign a statement acknowledging they have read and understood the concussion material.
 - i. All student-athletes will be required to sign a statement in which the student-athletes accept the responsibility for reporting their injuries and illnesses to the sports medicine staff, including signs and symptoms of concussions.
 - ii. All student-athletes will be required to sign the Big Ten Concussion Acknowledgement Form.
 - iii. Maryland sport coaches will sign the Big Ten Coaches Acknowledgment Form annually. The Maryland compliance office will maintain completed forms on file.
 - The University of Maryland Sports Medicine staff will assist the compliance staff in answering any questions parties might have regarding the material.
3. Every student-athlete at the University of Maryland will undergo a pre-participation evaluation and pre-season baseline testing for each sport in which they participate prior to participating in practice or competition.
4. During a preseason sport team meeting, student-athletes will be provided with information on concussions by athletic trainers and/or team physicians and have the opportunity to ask questions.
5. Maryland will have on file an emergency action plan for each athletics venue to respond to student-athlete catastrophic injuries and illnesses, including but not limited to concussions, heat illness, spine injury, cardiac arrest, respiratory distress (e.g. asthma), and sickle cell trait collapses.
6. Maryland sports medicine staff members shall be empowered to determine management and return-to-play of any ill or injured student-athlete, as he or she deems appropriate. Conflicts or concerns will be

forwarded to David Klossner (director of sports performance) and Valerie Cothran, MD (head team physician) for remediation.

7. Maryland sports medicine personnel with training in the diagnosis, treatment and initial management of acute concussion will be present at all ICA-sponsored contact competitions (i.e., football, lacrosse, wrestling, field hockey, soccer, pole vault, and basketball, for both men's or women's teams). To be present means to be on site at the campus or arena of the competition.
8. Maryland sports medicine personnel with training in the diagnosis, treatment and initial management of acute concussion will be available at all ICA-sponsored contact sports practices. 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.
9. When a student-athlete shows any signs, symptoms or behaviors consistent with a concussion, the athlete will be removed from practice or competition, by, a game official, member of the coaching staff or sports medicine staff dependent on the situation. The student-athlete will be evaluated by a member of the sports medicine staff with concussion management experience.
10. During competitions, on the field of play injuries will be under the purview of the official and playing rules of the sport. Maryland staff will follow such rules and attend to medical situations as they arise. Visiting sport team members evaluated by Maryland sports medicine staff will be managed in the same manner as Maryland student-athletes.
11. A student-athlete suspected of a concussion will not return to play on the same day until evaluated by a physician. A student-athlete diagnosed with a concussion will be withheld from the competition or practice and not return to activity for the remainder of that day or begin the return to play progression on the same day. Student-athletes that sustain a concussion outside of their sport will be managed in the same manner as those sustained during sport activity.
12. The student-athlete will be provided with the Concussion Home Instruction Sheet.
13. The student-athlete may not attend classroom activities on the same day as the concussion event.
14. The student-athlete will receive serial monitoring for deterioration by sports medicine personnel.
15. The student-athlete will be monitored for recurrence of symptoms both from physical exertion and also mental exertion, such as reading, phone texting, computer games, watching film, athletic meetings, working on a computer, classroom work, or taking a test.
16. The student-athlete will follow an individualized return-to-learn plan initiated by the team physician or their designee. Athletic Academic Advisors may be notified of student-athlete's concussion, with permission for release of information from the student-athlete. An Academic Advisor will be assigned to oversee the Americans with Disabilities Amendments Act (ADAAA) compliant return-to-learn plan as needed.
17. Return to play shall follow a physician supervised stepwise process.
18. Student-athletes with prolonged recovery as determined by a team physician will be evaluated to consider alternative diagnosis and a multidisciplinary management options.
19. Maryland will document the incident, evaluation, continued management, and clearance of the student-athlete with a concussion. Concussion outcomes will be submitted to the Ivy League/Big Ten Registry following approved IRB protocol.
20. The Head Team Physician will coordinate an annual meeting each Spring to review and update the Concussion Policy and Management Plan with the sports medicine staff. Any changes to the policy will be effective August 1 of that year.

CONCUSSION MANAGEMENT PLAN

University of Maryland Sports Medicine personnel will serially evaluate student-athletes with signs or symptoms of a possible mild traumatic brain injury or concussion as per the following guidelines -

- 1. Baseline Testing will be conducted on all student-athletes, including but not limited to,**

- a) Physical examination and history questionnaire, including brain and concussion history
- b) Symptom Evaluation via a checklist
- c) Cognitive Assessment via Axon testing
- d) Balance Testing via Sway balance or other balance test

Baseline testing must be done prior to participating in a practice or game, preferably in conjunction with the student-athlete's pre-participation physical examination. The Team Physician will determine pre-participation clearance and/or the need for additional consultation or testing.

2. At the time of Injury, student-athletes suspected of a concussion will undergo:

- a) Scene assessment, ABCs, r/o cervical spine injury and severe head trauma (skull fx, intracranial bleed)
 - (a) Emergency Action Plan activation based on initial assessment findings, including but not limited to,
 - (a) Glasgow Coma Scale < 13; (b) prolonged loss of consciousness; (c) focal neurological deficit suggesting intracranial trauma; (d) repetitive emesis; (e) persistently diminished/worsening mental status or other neurological signs/symptoms; or (f) spine injury.
- b) Physical examination and assessment of concussion symptoms by sports medicine staff
 - (a) Any student-athlete that exhibits signs, symptoms or behaviors consistent with a concussion injury including, but not limited to, shall be removed from play and evaluated by sports medicine staff with concussion management experience.
 - i. Symptoms - somatic (eg, headache), cognitive (e.g., feeling like in a fog) and/or emotional symptoms (e.g., lability, mood changes);
 - ii. Physical signs (e.g., unsteadiness, stumbles, loss of consciousness, amnesia);
 - iii. Behavioral changes (e.g., irritability, changes in personality);
 - iv. Cognitive impairment (e.g., confusion, slowed reaction times); or
 - v. Sleep disturbance (e.g., insomnia, abnormally too long).
 - (b) Initial Evaluation Guidelines:
 - i. When evaluating a University of Maryland Student-Athlete for a possible concussion injury on the field and sideline, sports medicine personnel will use standardized components of the Sport Concussion Assessment Tool (e.g., SCAT 2, SCAT 3). The SCAT assessment tool includes a review of symptoms, physical and neurological integrity, cognitive impairment, and balance deficits.
 - ii. The diagnosis of a concussion is a clinical judgment made by a medical professional. The SCAT should not be used solely to make, or exclude, the diagnosis of concussion in the absence of clinical judgement. If a concussion is suspected, the student-athlete will undergo further evaluation by a medical professional with concussion expertise.
 - (c) A student-athlete diagnosed with a concussion by medical personnel shall be withheld from returning to play or participating in any practice or game on the same Day on which he or she sustained that concussion and must be cleared by a physician before being permitted to return to play in practice or competition.

3. Post- Concussion Follow-Up:

- a) The student-athlete will be provided with the Concussion Home Instruction Sheet.
- b) The medical provider will document the oral and/or written care that was provided to both the student-athlete and another responsible adult (e.g. parent, roommate, coach, athletics representative).
- c) Serial evaluation and monitoring will be conducted by a licensed athletic trainer and/or team physician with concussion expertise as outlined in the Concussion Recovery Tracking Checklist.
- d) Physician evaluation within 24 hours of the onset of symptoms or the next physician clinic after returning to campus from traveling.

- e) During the period of recovery and while the student-athlete is symptomatic following injury, the student-athlete should follow a physical AND cognitive rest plan as determined by the physician until such time that he/she is within asymptomatic baselines.
 - i. The student-athlete may not attend classroom activities on the same day as the concussion event.
 - ii. The student-athlete will follow an individualized return-to-learn plan as supervised by the team physician and sport Academic Advisor.
- f) Student-athlete recovery is individualized and will follow a supervised stepwise progression by the team physician and athletic trainer with concussion expertise.
- g) A range of 'modifying' factors may influence the investigation and management of concussion and, in some cases, may predict the potential for prolonged or persistent symptoms.
- h) Cases of concussion where clinical recovery falls outside the expected window (e.g., 14 days) will be seen by the Team Physician for follow-up. These cases should be managed in a multidisciplinary manner by health care providers with experience in sports-related concussion. Low-level exercise for those who are slow to recover may be considered. Further evaluation by the team physician for the student-athlete along the course of prolonged recovery will occur in order to consider additional diagnosis and multidisciplinary care team options. Considerations should include, but are not limited to:
 - i. Post-concussion syndrome
 - ii. Sleep dysfunction
 - iii. Migraine or other headache disorders
 - iv. Mood Disorders such as anxiety and depression
 - v. Ocular or vestibular dysfunction
- i) The multidisciplinary team may consist of a team physician, licensed athletic trainer, licensed clinical psychologist with expertise in sports, consulting neurologist, consulting neuropsychologist, athletic academic advisor, Speech Pathologist, Office of Disability Support Services representative, coaches, administrators, and faculty representative.
- j) Once the student-athlete has returned to his/her baseline, the return-to-play decision is based on a protocol of a stepwise increase in volume and intensity of physical activity by the team physician and/or the physician's designee.

Pre-season Concussion Baseline testing will include all student-athletes participating on all Maryland ICA-sponsored sports teams.

Supervised Stepwise Progression Protocol

Once the student-athlete has returned to within his/her baseline, the return-to-play decision is based on a stepwise protocol that allows an increase in volume and intensity of physical activity by the team physician and/or the physician's designee. The athlete is monitored for any concussion-like signs/symptoms during and after each exertional activity. With this stepwise progression, the athlete should continue to proceed to the next stage level if asymptomatic at the current level. The individual should remain within baseline measures throughout each step of the protocol. If symptoms reoccur the student-athlete will stop that activity and be reassessed by the team physician before progressing.

In order to be considered for return to play, the student-athlete must:

- 1) Follow the outlined guidelines for management of his/her injury;
- 2) Be fully asymptomatic at rest, with exertional testing, and with supervised sports-specific activities; and
- 3) Be within normal baseline limits on all post-exertion assessments.

STEP 1: Light Aerobic Exercise. This stage incorporates an exertional protocol that allows a gradual increase in volume and intensity during the return to play process. The goal is to increase heart rate. The athlete is monitored for any concussion-like signs/symptoms during and after each exertional activity.

- a. Begin exertional testing in a controlled setting under the direction of a licensed athletic trainer.
 - 1) For example:
 - 20 minute non-impact cardiovascular challenge (bike, stairmaster, elliptical trainer, etc) – 5 min warm-up, 10 min at < 70% maximum heart rate, 5 min cool down; and
 - Bodyweight circuit: 3 sets of 20 sec Squats+20 sec Push Ups+20 sec Sit-ups at < 70% maximum heart rate.
 - 2) No resistance training.

STEP 2: Sports-Specific, Progressive Exertional Functional Activity

- a. Goal is to add sport movement and continue conditioning activities.
- b. Add movement - Mode, duration and intensity dependent upon sport:
 - Sport specific drills (e.g., running in soccer, throwing, agility, individual routes, shooting, passing, etc)
- c. No potential head impact activities (e.g. checking, blocking, tackling, goal keeping, batting, takedowns, team rebounding, etc).

STEP 3: Supervised "modified / non-contact" Practice

- a. Goal is to add progressive exercise, coordination and cognitive load training drills - Mode, duration, and intensity dependent upon sport.
 - 1) Continue sport specific drills and conditioning; and
 - 2) Begin progressive strength training program.
 - 3) No live contact or potential head impact activities (e.g. checking, blocking, tackling, goal keeping, batting, takedowns, team rebounding, etc).
 - 4) May wear full protective equipment.
 - 5) Begin Non-contact practice drills & activities; progression to more complex training drills (e.g. passing in football, shooting, individual rebounding, game formations, tactical sessions, skill progressions from Step 2 activities).

If the student-athlete is asymptomatic with all activities through Step 3, the team physician shall review the case history and will determine clearance status toward a full return to competitive activities.

STEP 4: Return to Competitive Team Activities

- a. Following physician medical clearance, the athlete will begin to participate in normal, unrestricted sport training activities. The athlete's fitness, functional skills and ability to return to normal sport game play should be considered.
- b. The athlete should progress, in part, on their confidence level as well as their fitness levels.
- c. Begin live contact activity as indicated (e.g. tackle bags/dummies/sleds, tackling, "thud", drills involving wrapping up, full speed blocking, checking, game formations, tactical sessions, skill progressions)
- d. Continue Sport Specific Drills.
- e. Continue strength and conditioning program.

Academic Considerations: Return-to-Learn

When a student-athlete is diagnosed with a concussion that may require academic modifications, the Head Team Physician, or his/her designee, will contact the Associate Athletic Director for Academic Support and Career Development Department (ASCDU). The Head Team Physician, or his/her designee, and an Athletic Academic Advisor will coordinate the return-to-learn management plan. They will solicit input, as needed, from the consulting neurologist, sports psychologist, sports psychiatrist, speech pathologist, the Academic Advisor, and the Director from the Office of Disability Support Services (DSS).

The student-athlete will follow a gradual return to classroom/studying/tutoring as tolerated. The student-athlete will not attend classroom activities on the same day as the concussion event based on the medical evaluation. If the student-athlete cannot tolerate light cognitive activity, the student-athlete may remain at home/dorm until tolerated.

The student-athlete will be re-evaluated by the team physician and members of the multidisciplinary care team, as appropriate.

The Associate Athletic Director for ASCDU or the sport specific Academic Advisor will contact the student-athlete's course instructors, tutors, and learning specialists; informing them of the student-athlete's condition and possible academic modifications that may be warranted.

When the impact of a concussion diagnosis occurs for an extended duration, the Associate Athletic Director for ASCDU will contact the Director of Disability Support Services (or designee) regarding the student-athlete's condition. The Director of Disability Support Services or designee, will determine if academic accommodations through disability services are warranted. Accommodations approved by the Office Disability Support Services will be implemented consistent with the ADA and communicated to the Associate Athletic Director for ASCDU.

Dr. Jo Ann Hutchinson, DSS Director
Disability Support Services
University Counseling Center
jahutch@umd.edu
301-314-7681

Academic Considerations Awareness Letter

The University of Maryland Sports Medicine and Academic Support & Career Development Departments would like to inform you that _____ sustained an injury or illness while participating in intercollegiate athletics. He/she was evaluated by _____, MD, team physician for the University of Maryland. We would like to inform you that _____ will be/was absent from their class today as a result of this injury. During the next few weeks this athlete may ask for additional considerations. Should you have any questions or require further information regarding academic considerations, please do not hesitate Chris Uchacz.

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Thank you in advance for your time and understanding with this circumstance.

Reducing Head Trauma Exposure

Year-Round Football Practice Contact Guidelines

Maryland Football's year-round emphasis is to limit head contact, regardless of whether the student-athlete is in full-pad, half-pad, or is participating in a helmet-only practice. This philosophy supports a "safety first" approach and reduces gratuitous contact during practice. However, football practice must prepare the student-athlete for the rigors of an aggressive, contact, rugged sport. Without adequate preparation, which includes live tackling, the student-athlete could be at risk of unforeseen injury during the season because of inadequate preparation. Practices will be conducted in a manner consistent with existing rules that prohibit targeting to the head or neck area with the helmet, forearm, elbow, or shoulder, or the initiation of contact with the helmet. All football student-athletes review and sign an acknowledgement statement that they understand the NOCSAE warning and the dangers associated with using the head and/or helmet inappropriately.

Maryland sports medicine staff members are empowered to determine management and return-to-play of any ill or injured student-athlete, as he or she deems appropriate. Coaches support the decisions of the Maryland sports medicine staff and do not impose undue pressure or demands that would impede the medical care of a student-athlete.

Athletic Trainer Spotter for Football Games

The University of Maryland will have experienced team physicians and athletic trainers on the sideline observing for potential injuries, managing health care delivery and return to play decisions.

In addition, the Big Ten Conference will also have an independent neutral Athletic Trainer (AT) Spotter in the replay booth for home and away conference football games.

Games:

- The AT Spotter will be seated in the replay booth and will have access to their own monitor to assist him/her in their role.
- The AT Spotter will have the ability to directly contact game officials on the field.

UNIVERSITY OF MARYLAND SPORTS MEDICINE DEPARTMENT CONCUSSION SYMPTOM CHECKLIST

Name _____ Date _____ Time _____

Sport _____ Baseline Follow-up

Instructions: Please Check the **Yes** or **No** box to indicate any symptoms the patient is experiencing.

Hearing Problems (e.g. ringing in the ears)	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Headache	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
“Pressure in head”	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Neck pain	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Nausea or vomiting	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Dizziness	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Blurred vision	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Balance problems	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Sensitivity to light	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Sensitivity to noise	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Feeling slowed down	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Feeling like “in a fog”	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
“Don’t feel right”	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Difficulty concentrating	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Difficulty remembering	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Fatigue or low energy	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Confusion	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Drowsiness	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Trouble falling asleep	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
More emotional	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Irritability	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Sadness	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Nervous or anxious	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Anterograde amnesia (loss of memory of events after concussion)	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Retrograde amnesia (loss of memory of events prior to concussion)	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes
Loss of consciousness	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes

I confirm that the information provided on this document is accurate.

Student-Athlete Signature: _____ Date: _____

Healthcare Provider Signature: _____ Date: _____



Concussion Home Care Plan

Instructions:

Rest is the key. During your recovery, you should not participate in any high risk activities (e.g., sports, scooter, rec sports, weight training, riding a bike, captain’s practices, etc.) until cleared by the sports medicine staff, if you still have any of the symptoms below. It is important to limit activities that require a lot of thinking or concentration (homework, tests, tutor, job-related activities); if these are making your symptoms worse notify your Athletic Trainer and/or Team Physician. If you no longer have any symptoms and believe that your concentration and thinking are back to normal, you can slowly and carefully return to your daily activities. Listen to the instructions of your team physician and athletic trainer about returning to daily activities.

Today, the following symptoms are present (circle):

Physical		Thinking	Emotional	Sleep
Headache	Sensitivity to light	Feeling like “in a fog”	Irritability	Drowsiness
Nausea / Vomiting	Sensitivity to noise	Difficulty concentrating	More emotional	Trouble Falling Asleep
Dizziness	Blurred Vision	Difficulty remembering	Sadness	Sleeping more than usual
Balance problems	Fatigue	Confusion	Nervous or anxious	Sleeping less than normal

Other: _____

RED FLAGS: Call your athletic trainer, or go to the emergency room if you suddenly experience any of the following:

Headaches that worsen	Look very drowsy, can’t be awakened	Can’t recognize people or places	Unusual behavior change
Seizures	Repeated vomiting	Increasing confusion	Increasing irritability
Neck pain	Slurred speech	Weakness or numbness in arms or legs	Loss of consciousness

Returning to Daily Activities:

1. Sleep
 - a. Get lots of rest. Be sure to get enough sleep at night- no late nights.
 - b. Keep the same bedtime weekdays and weekends.
 - c. Take daytime naps or rest breaks when you feel tired or fatigued.
2. Physical Activity, School and Work
 - a. Limit physical activity, because it can make symptoms worse. Physical activity includes most University physical activity courses, recreational activities, sports practices, weight-training, running, exercising, heavy lifting, etc.
 - b. Limit activities that require a lot of thinking or concentration, because these can also make symptoms worse. These activities include homework, class-work, job-related activities, using computers or even playing videogames.
 - c. As symptoms decrease, you may begin to gradually return to your daily activities. If symptoms worsen or return, lessen your activities, and then try again to increase your activities gradually.

3. Nutrition
 - a. Drink lots of fluids (water, juice, Gatorade) and eat a healthy diet.
 - b. Do NOT drink any alcohol or eat spicy foods.
4. Medications
 - a. Do not take any pain medication, unless you are instructed to do so, by your team physician or athletic trainer. Please report all medications you are currently taking to your team physician.
 - b. You may use ice on your head/neck for comfort/pain control as needed.
5. During recovery, it is normal to feel frustrated and sad when you do not feel right and you can't be as active as usual. Ask your Athletic Trainer if you would like to talk to a Counselor for strategies to cope with this feeling.
6. Limit screen time, video gaming, texting, and television as they may aggravate symptoms.
7. You should not drive a scooter, car or ride a bicycle until you are instructed by your team physician or athletic trainer that you are able to drive safely.
8. Your symptoms may change throughout the day with certain activities. If symptoms get worse or you begin to experience red flags as noted above contact your athletic trainer.

Specific Recommendations:

You need to be seen for a follow-up examination on _____.

Recommendations provided by: _____ Date: _____ Time: _____

Please feel free to contact me, if you have any questions. Please contact me immediately if you notice any of the

“Red Flags” listed on the front of this sheet. I can be reached at: _____

Adapted from:

Acute Concussion Evaluation Care Plan (Gerard Gioia, PhD and Mickey Collins PhD, available at:

<http://www.cdc.gov/concussion/headsup/>) and the National Athletic Trainers’ Association position statement: management of sport-related concussion (Guskiewicz KM, Bruce SL, Cantu RC et al.; J Athl Train 2004:39(3):280-297) and the [2012 AMSSM Position Statement](#)

**UNIVERSITY OF MARYLAND SPORTS MEDICINE DEPARTMENT
CONCUSSION RECOVERY TRACKING CHECKLIST**

Student-Athlete _____ Athletic Trainer _____

Sport _____ Date of Injury _____ Treating Physician _____

Loss of Consciousness: Yes / No

Anterograde amnesia: Yes / No

(loss of memory of events after concussion)

Retrograde amnesia: Yes / No

(loss of memory of events prior to concussion)

Date

Initial Injury Evaluation Completed

- Home Care Plan Provided
- Omega 3 / Fish Oil considered

STAGE ONE: Recovery Period.

Post- Concussion Follow-Up

- a) Initial Physician evaluation and/or consultation
- b) Serial symptom follow-up
- c) Date when athlete reports asymptomatic within baseline
- d) Axon Test returned to within baseline
- e) Balance Testing returned to within baseline

Graduated Return to Play Protocol Completed without Symptoms

STEP 1: Light Aerobic Exercise without resistance training.

STEP 2: Sports-Specific, Exertional Functional Activity

STEP 3: Supervised "modified/non-contact" practice

Step 4: Return to Competitive Team Activities

Number of Days to Full Return to Activity

Date of return to full academics

Comments: _____

Physician Name: _____

Physician Signature: _____ Date: _____

THE IVY LEAGUE/BIG TEN CONCUSSION REGISTRY

Section 1. Background

1. School
2. Sport
3. Men or Women's Team
4. Gender of Participant
5. Age in years at concussion diagnosis
6. Number of previous concussions
7. Date of 3 most recent concussions

Section 2. Circumstances of Concussion Event

1. Sport---Related or Not
2. Activity (competition, practice, skill instruction, etc.)
3. Type of play
4. Part of Season (pre---season, regular season, second season)
5. Position
6. Implement of injury (ground, ball, person)
7. Where did play occur (midfield, near sideline)
8. Describe the play or event
9. Were others injured
10. Was a rule violated on the play
11. Was a foul or penalty called
12. What protective equipment were you wearing
13. Describe any other injuries sustained

Section 3. Impact of Concussion Event

1. Date of current concussion
2. Date reported
3. Date when first symptoms appeared
4. How long did symptoms last
5. Did you lose consciousness
6. Did you have amnesia
7. Date of return to exertion
8. Date of return to limited play
9. Date of return to full play
10. Date of return to full academics
11. Describe any other limitations



What is a concussion?

A concussion is a type of traumatic brain injury. It follows a force to the head or body and leads to a change in brain function. It is not typically accompanied by loss of consciousness.

How can I keep myself safe?

1. Know the symptoms.

You may experience ...

- Headache or head pressure
- Nausea
- Balance problems or dizziness
- Double or blurry vision
- Sensitivity to light or noise
- Feeling sluggish, hazy or foggy
- Confusion, concentration or memory problems

2. Speak up.

- If you think you have a concussion, stop playing and talk to your coach, athletic trainer or team physician immediately.

3. Take time to recover.

- Follow your team physician and athletic trainer's directions during concussion recovery. If left unmanaged, there may be serious consequences.
- Once you've recovered from a concussion, talk with your physician about the risks and benefits of continuing to participate in your sport.

How can I be a good teammate?

1. Know the symptoms.

You may notice that a teammate ...

- Appears dazed or stunned
- Forgets an instruction
- Is confused about an assignment or position
- Is unsure of the game, score or opponent
- Appears less coordinated
- Answers questions slowly
- Loses consciousness

2. Encourage teammates to be safe.

- If you think one of your teammates has a concussion, tell your coach, athletic trainer or team physician immediately.
- Help create a culture of safety by encouraging your teammates to report any concussion symptoms.

3. Support your injured teammates.

- If one of your teammates has a concussion, let him or her know you and the team support playing it safe and following medical advice during recovery.
- Being unable to practice or join team activities can be isolating. Make sure your teammates know they're not alone.

No two concussions are the same. New symptoms can appear hours or days after the initial impact. If you are unsure if you have a concussion, talk to your athletic trainer or team physician immediately.

What happens if I get a concussion and keep practicing or competing?

- Due to brain vulnerability after a concussion, an athlete may be more likely to suffer another concussion while symptomatic from the first one.
- In rare cases, repeat head trauma can result in brain swelling, permanent brain damage or even death.
- Continuing to play after a concussion increases the chance of sustaining other injuries too, not just concussion.
- Athletes with concussion have reduced concentration and slowed reaction time. This means that you won't be performing at your best.
- Athletes who delay reporting concussion take longer to recover fully.

What are the long-term effects of a concussion?

- We don't fully understand the long-term effects of a concussion, but ongoing studies raise concerns.
- Athletes who have had multiple concussions *may* have an increased risk of degenerative brain disease and cognitive and emotional difficulties later in life.

What do I need to know about repetitive head impacts?

- Repetitive head impacts mean that an individual has been exposed to repeated impact forces to the head. These forces may or may not meet the threshold of a concussion.
- Research is ongoing but emerging data suggest that repetitive head impact also may be harmful and place a student-athlete at an increased risk of neurological complications later in life.

Did you know?

- NCAA rules require that team physicians and athletic trainers manage your concussion and injury recovery independent of coaching staff, or other non-medical, influence.
- We're learning more about concussion every day. To find out more about the largest concussion study ever conducted, which is being led by the NCAA and U.S. Department of Defense, visit ncaa.org/concussion.

CONCUSSION TIMELINE



For more information, visit ncaa.org/concussion.
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**Big Ten Injury and Illness Reporting
Acknowledgement Form**

I, _____, acknowledge that I have to be an active participant in my own healthcare. As such, I have the direct responsibility for reporting all of my injuries and illnesses to the sports medicine staff of my institution (e.g., team physician, athletic training staff). I recognize that my true physical condition is dependent upon my accurate medical history and a full disclosure of any symptoms, complaints, prior injuries and/or disabilities experienced. I hereby affirm that I have fully disclosed in writing any prior medical conditions and will also disclose any future conditions to the sports medicine staff at my institution.

I further understand that there is a possibility that participation in my sport may result in a head injury and/or concussion. I have been provided with education on head injuries and understand the importance of immediately reporting symptoms of a head injury/concussion to my sports medicine staff.

By signing below, I acknowledge that my institution has provided me with educational materials on what a concussion is and given me an opportunity to ask questions about areas and issues that are not clear to me on this issue.

I, _____ have read the above and agree that the statements are accurate.
Student-athlete's name

Signature of student-athlete

Date

Name of person obtaining consent

Signature of person consenting



What is a concussion?

A concussion is a type of traumatic brain injury. It follows a force to the head or body and leads to a change in brain function. It is not typically accompanied by loss of consciousness.

How can I tell if an athlete has a concussion?

You may notice the athlete ...

- Appears dazed or stunned
- Forgets an instruction
- Is confused about an assignment or position
- Is unsure of the game, score or opponent
- Appears less coordinated
- Answers questions slowly
- Loses consciousness

Note that no two concussions are the same. All possible concussions must be evaluated by an athletic trainer or team physician.

The athlete may tell you he or she is experiencing ...

- A headache, head pressure or that he or she doesn't feel right following a blow to the head
- Nausea
- Balance problems or dizziness
- Double or blurry vision
- Sensitivity to light or noise
- Feeling sluggish, hazy or foggy
- Confusion, concentration or memory problems

What can I do to keep student-athletes safe?

	Preseason	In-Season	Time of Injury	Recovery
What can I do?	Create a culture in which concussion reporting is encouraged and promoted.	Know the signs and symptoms of concussions.	Remove athletes from play immediately if you think they have a concussion and refer them to the team physician or athletic trainer.	Follow the recovery and return-to-play protocol established by team physicians and athletic trainers.
Why does it matter?	Athletes who don't immediately seek care for a suspected concussion take longer to recover.	The more people who know what to look for in a concussed athlete, the more likely a concussion will be identified.	Early removal from play can mean a quicker recovery and help avoid serious consequences.	Team physicians and athletic trainers have the training to follow best practices related to the concussion recovery process.
Tips and strategies	Be present when your team physician or athletic trainer provides concussion education material to your team. Tell your team that this matters to you.	Check in with your team physician or athletic trainer if you want to learn more about concussion safety.	Provide positive reinforcement when an athlete reports a suspected concussion.	Tell athletes that decisions related to their return to play and health are entirely in the hands of the team physician and athletic trainer.

You play a powerful role in setting the tone for concussion safety on your team. Let your team know that you take concussion seriously and reporting the symptoms of a suspected concussion is an important part of your team's values.

What happens if an athlete gets a concussion and keeps practicing or competing?

- Due to brain vulnerability after a concussion, an athlete may be more likely to suffer another concussion while symptomatic from the first one.
- In rare cases, repeat head trauma can result in brain swelling, permanent brain damage or even death.
- Continuing to play after a concussion increases the chance of sustaining other injuries too, not just concussion.
- Athletes with a concussion have reduced concentration and slowed reaction time. This means they won't be performing at their best.
- Athletes who delay reporting concussion may take longer to recover fully.

What are the long-term effects of a concussion?

- We don't fully understand the long-term effects of a concussion, but ongoing studies raise concerns.
- Athletes who have had multiple concussions *may* have an increased risk of degenerative brain disease, and cognitive and emotional difficulties later in life.

What do I need to know about repetitive head impacts?

- Repetitive head impacts mean that an individual has been exposed to repeated impact forces to the head. These forces may or may not meet the threshold of a concussion.
- Research is ongoing but emerging data suggest that repetitive head impact also may be harmful and place a student-athlete at an increased risk of neurological complications later in life.

Did you know?

- Most contact or collision teams have at least one student-athlete diagnosed with a concussion every season.
- Your school has a concussion management plan, and team physicians and athletic trainers are expected to follow that plan during a student-athlete's recovery.
- NCAA rules require that team physicians and athletic trainers have the unchallengeable authority to make all medical management and return-to-play decisions for student-athletes.
- We're learning more about concussion every day. To find out more about the largest concussion study ever conducted, which is being led by the NCAA and U.S. Department of Defense, visit ncaa.org/concussion.



For more information, visit ncaa.org/concussion.

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**Big Ten Coaches Concussion
Acknowledgement Form**

I, _____, acknowledge that as a member of the athletic department at, _____, I accept responsibility for supporting our sports medicine department's policy on concussion management.

I understand that my student-athletes may have a risk of head injury and/or concussion. I also understand the importance of them reporting any such symptoms of a head injury/concussion to the sports medicine staff (e.g., team physician, head athletic trainer). I also accept responsibility for reporting to the sports medicine staff any signs or symptoms that I may witness.

By signing below, I acknowledge that my institution has provided me with educational materials on what a concussion is and given me an opportunity to ask questions about areas and issues that are not clear to me on this issue.

I, _____ have read the above and agree that the statements are accurate.

Signature of coach

Date

Name of person obtaining acknowledgement

Signature of such person

**University of Maryland
Medical Provider Concussion Statement**

I, _____, acknowledge that as a member of the athletic department at the University of Maryland, I accept responsibility of supporting our sports medicine department's policy on concussion management.

I understand that student-athletes may have a risk of head injury and/or concussion while participating in NCAA sports. I also understand the importance of student-athletes to report symptoms of a head injury or concussion.

By signing below, I acknowledge that I have read the NCAA Concussion Fact Sheet, reviewed the University of Maryland Concussion Management Policy, and understood the concussion material. I had the opportunity to ask questions about areas and issue that were not clear to me on this issue.

I, _____, have read the above and agree that the statements are accurate.

Signature

Date

**University of Maryland
Athletics Administrator Concussion Statement**

I, _____, acknowledge that as a member of the athletic department at the University of Maryland, I accept responsibility of supporting our sports medicine department's policy on concussion management.

I understand that student-athletes may have a risk of head injury and/or concussion while participating in NCAA sports. I also understand the importance of student-athletes to report symptoms of a head injury or concussion.

By signing below, I acknowledge that I have read the NCAA Concussion Fact Sheet, reviewed the University of Maryland Concussion Management Policy, and understood the concussion material. I had the opportunity to ask questions about areas and issue that were not clear to me on this issue.

I, _____, have read the above and agree that the statements are accurate.

Signature

Date