Concussion Management Policy

The following concussion management policy regarding neurocognitive baseline testing and subsequent assessment and management of concussions in student-athletes (S-As), inclusive of return to learn and return to play guidelines, has been developed in accordance with the University of North Carolina Greensboro (UNCG) Mission Statement to provide quality healthcare services and assure the well-being of each S-A at UNCG.

PURPOSE
The UNCG Department of Athletic Training recognizes that concussions, including sport-related concussions, pose a significant health risk for those S-As participating in athletics at UNCG. With this in mind, the UNCG Concussion Management Policy has been drafted to assist in the assessment and management of those S-As who have suffered a concussion. This policy includes steps for education, baseline testing, assessing neurocognitive function, as well as the steps to be followed once a concussion has been recognized.

CONCUSSION DEFINITION
According to the new consensus statement on concussion in sport, a concussion is a traumatic brain injury induced by biomechanical forces. Several common features that may be utilized in clinically defining the nature of a concussive head injury include:

- 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.
- Concussion typically results in the rapid onset of short-lived impairment of neurological function that resolves spontaneously. However, in some cases, signs and symptoms evolve over a number of minutes to hours.
- Concussion may result in neuropathological changes, but acute clinical signs and symptoms largely reflect a functional disturbance rather than a structural injury and, as such, no abnormality is seen on standard structural neuroimaging studies.
- Concussion results in a range of clinical signs and symptoms that may or may not involve loss of consciousness. Resolution of the clinical and cognitive features typically follows a sequential course. However, in some cases symptoms may be prolonged.

Signs and Symptoms of a Concussion:
The Athletic Training (AT) and coaching staffs all need to be aware of the signs and symptoms of concussions to properly recognize and intervene on behalf of the S-A. These symptoms include but are not limited to:

- Headache or head pressure
- Nausea
- Balance problems
- Dizziness
- Double or blurred vision
- Sensitivity to light/noise

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Feeling sluggish/hazy/foggy  Appears dazed/stunned  Answers questions slowly
Confusion  Forgets instruction  Loses consciousness
Concentration difficulty  Unsure of game/score
Memory problems  Appears less coordinated

These clinical signs and symptoms when not explained by drug, alcohol, or medication use, other injuries (such as cervical injuries, peripheral vestibular dysfunction, etc) or other comorbidities (eg. psychological factors or coexisting medical conditions) should be considered concussive in nature.2

PRE-SEASON EDUCATION
Pre-season education will take place on an annual basis. Medical clearance will require incoming and returning S-As to read an electronic copy of the NCAA’s Concussion, A Fact Sheet for Student-Athletes, which was released by the NCAA prior to July 2017, and electronically sign a concussion statement (Appendix B) acknowledging they have read the NCAA’s Concussion, A Fact Sheet for Student-Athletes and accept responsibility for reporting their injuries and illnesses, including concussions, to the institutional medical staff. Yearly team discussions will also be led by an AT and will include reviewing signs and symptoms of concussions. During this discussion, the team AT will go over the recently released NCAA Sport Science Institute’s Concussion Safety, What Student Athletes Need to Know (Appendix A) and have them complete another concussion statement to be kept on file with the Assistant Athletic Director for Health and Sports Performance. Emergency contact information for the AT staff will also be provided at this time. In addition, athletic directors, ATs, physicians and coaches will attend a concussion information session led by The Assistant Athletic Director for Health and Sports Performance or a designated member of the AT staff. All in attendance will receive a copy of NCAA Sport Science Institute’s Concussion Safety, What Coaches Need to Know (Appendix C), be given access to an electronic copy of the UNCG Concussion Management Policy and will be asked to sign a concussion statement (Appendix D) to document attendance at the education session and knowledge of current NCAA/UNCG concussion policies to be kept on file with the Assistant Athletic Director for Health and Sports Performance. A copy of the NCAA Fact Sheet for Coaches and the UNCG Concussion Management Policy will also be sent to the Medical Director of the UNCG Student Health Center to be circulated amongst their medical providers in the event a S-A is seen in their office.

PRE-SEASON ASSESSMENT
All S-As will complete baseline concussion testing (SCAT5) as part of their pre-participation physical exam. The SCAT5 currently represents the most well-established and rigorously developed instrument for testing. This testing will include brain injury and concussion history, symptom evaluation, neurocognitive assessment and a balance evaluation. All incoming S-As, both freshmen and transfers, who participate in the contact and collision sport category or contact sport category, as indicated by Guideline 21 of the 2014-15 NCAA Sports Medicine Handbook, will have both a baseline SCAT5 and a baseline neuropsychological test performed as part of their pre-participation physical. These sports include baseball, basketball, soccer, softball and cheerleading. UNCG S-As will complete re-baseline neuropsychological tests every two years. Additionally, every S-A which suffered a concussion during the previous academic year will have a new baseline neuropsychological test conducted prior to commencement of athletic activity the following academic year. Currently, UNCG uses ImPACT™ concussion management system (www.impacttest.com). The ImPACT™ system is a computerized neuropsychological program that tests neurocognitive function. This baseline testing will be used as a reference point when evaluating the S-A’s recovery from a head injury. Each baseline test will need to be confirmed as valid for medical clearance.

A UNCG team physician will make the final pre-participation medical clearance for each S-A based on a review of his/her entire medical file. The team physician will determine if any further baseline testing or neurological consultation will be needed based on this review.

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CONCUSSION RECOGNITION AND DIAGNOSIS

In an effort to effectively recognize, manage and treat acute injuries, UNCG AT staff members will be present for all NCAA varsity competitions in the following sports: baseball, basketball, soccer, softball and volleyball. In addition, UNCG AT staff members will be present for all NCAA Varsity “home” competitions in cross country, golf, tennis and track. UNCG AT staff members will also be available, either in person or by phone, for all practices. An AT will be on site, within a 3-5 minute response time, for baseball, basketball, soccer, softball and volleyball. An AT will be available by phone and/or after practice for cross country, golf, tennis and track. ATs will also be available by phone to arrange medical evaluations for all injured S-As.

In any circumstance where a concussion is suspected in a S-A, the first priority is to remove the S-A from further practice or competition until a thorough concussion evaluation by an AT or team physician with concussion experience is completed. Furthermore, if there is a question about the state of mental status, it is best to err in the direction of conservative assessment and withhold the S-A from further activity.

The recommendations in this document for the management of concussion are based on review of the medical literature including, but not limited to, statements in the NCAA Sports Medicine Handbook, the 2016 Consensus Statement on Concussion in Sport developed at the 5th International Conference of Concussion in Sport held in Berlin, the National Athletic Trainers’ Association Position statement: Management of Sport Concussion, 2014 and the American Medical Society for Sports Medicine Position statement: Concussion in Sport, 2013.

INITIAL EVALUATION OF SUSPECTED CONCUSSION

In all situations where a concussion or head injury is suspected, the first step is to remove the S-A from practice or competition. A few minutes will be allowed for the S-A to catch his/her breath and lower his/her heart rate. The S-A will be monitored during this time for any signs or symptoms of an impending emergency which may include but not limited to persistent nausea/vomiting, focal neurologic changes, declining level of consciousness, seizure, witnessed loss of consciousness, etc.

The medical professional (team physician or AT) should evaluate the S-A with a consistent thorough clinical examination. Every attempt should be made to complete clinical evaluations in a distraction-free environment (locker room or medical office) rather than the sideline. Regardless of the assessment measures, the evaluation should include an assessment of symptoms, physical signs, balance impairment, behavioral changes, cognitive impairment and sleep/wake disturbances. A detailed concussion history is important in both the initial injury evaluation and the pre-participation exam. This evaluation should also assess for more severe orthopedic and neurological injuries (i.e. C-Spine trauma, skull fractures, intracranial bleeds). If a concussion is confirmed through this evaluation, the S-A will be held from physical and classroom activity for the remainder of the calendar day.

If the S-A denies any signs or symptoms of a concussion and has a normal clinical exam, he/she will be given the opportunity to complete progressive exertional activities to be considered for same day return to play. The S-A will perform general aerobic activities (jogging, biking etc.), followed by more intense efforts and sport specific activities. If the S-A continues to deny any symptoms of concussion and has a normal clinical exam following the exertional testing, he/she may attempt a return to participation. If the S-A has a return of symptoms or changes in his/her exam, they are presumed to have a concussion and may not return to participation that day and should follow the post-concussion management plan (see below).

If the S-A is allowed to return to participation the same day, the medical professional should re-evaluate his/her symptoms after roughly 5 minutes of participation and again after the practice/game. If the S-A

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has an onset of symptoms during or after participation, they are to be held from any further participation and presumed to have a concussion and follow the post-concussion management plan.

If the S-A has a witnessed loss of consciousness or has amnesia, then he/she should not return to participation that day even if his/her other symptoms and exam are normal.

In the event that the S-A has a significant head or neck injury or worsening warning signs/symptoms including, but not limited to:

Glasgow Coma Scale <13
Prolonged loss of consciousness
Focal neurological deficit suggesting intracranial bleed
Repetitive emesis
Persistently diminishing/worsening mental status or other neurological signs/symptoms
Spine injury

the AT should activate the EAP and arrange for immediate evaluation of the S-A.

**POST-CONCUSSION MANAGEMENT**
Any S-A diagnosed with a concussion will be sent home with a “Concussion Information Sheet” (Appendix E) and instructed on strict cognitive and physical rest for the remainder of the day. The warning signs of a complicated concussion are also reviewed with the athlete at this time. It is advised the Athletic Trainer document that the S-A and chaperone (parent or roommate/teammate who can monitor S-A for worsening symptoms) voice understanding of the information included the above document, sign the form, and keep a copy for the medical file. The S-A should not be left alone after the injury.

The AT will keep constant communication with a team physician to discuss each diagnosed concussion and conduct serial follow-ups that should include the symptom checklist. Once the S-A self-reports he/she is asymptomatic, the SCAT5 and post-traumatic neurocognitive test should be repeated and compared to baseline.

It is possible a S-A will become asymptomatic and have a normal/baseline SCAT5 on the day of injury or within 24 hours post injury. Based on his/her sideline evaluation, he/she is still diagnosed with a concussion while already returning to a baseline state. He/she must rest for the remainder of that day and cannot return to any competition, physical activities or classroom activities until the following day at the earliest.

**REST AND REHABILITATION**
Following a concussion, S-As will be given 24-72 hours of rest before gradually becoming more active. During this rest period, S-As will be encouraged to be at both physical and cognitive rest. Activities that require concentration and attention (scholastic work, video games, text messaging, watching television, observing practice or games) may exacerbate symptoms and possibly delay recovery. S-As will be allowed to return to class the following day as long as their symptoms do not increase with cognitive loads. If a cognitive load increases symptoms, S-As will be referred to the Office of Accessibility Resources and Services (OARS) to be evaluated for potential academic accommodations. UNCG is in full compliance with both the ADAAA and Section 504 of the Rehabilitation Act. Injury reports, symptom scales and results from the post-traumatic SCAT5 can be used to assist in the determination of needed accommodations.

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After 48-72 hours, S-As may begin light aerobic exercise and or concussion rehabilitation under the supervision of an AT. All exercise and rehabilitation prescriptions will be at the discretion of the treating physician. If exercise or rehabilitation increases symptoms, another 48 hours of rest will be given to the S-A before attempting again. S-As must resume classroom attendance prior to progressing past the light aerobic exercise phase of the RTP progression to determine if symptoms return with increased cognitive function.

**RETURN TO LEARN**
Depending on the S-A’s symptoms and his/her response to cognitive activity, he/she may be prescribed an individualized plan to remain at home and gradually return to academic work while these symptoms resolve. If a S-A is referred to OARS, the following process will be used by the AT to assist the S-A with academic concessions.

1) Email the completed “Faculty Information Sheet for Concussed Student-Athlete” (Appendix F) to the Faculty Athletic Representative ((FAR) dlwyrick@uncg.edu), OARS (oars@uncg.edu), Dean of Students Office (deanofstudentsoffice@uncg.edu), Assistant Athletic Director for Spartan Academic Support Services (kristin.rusboldt@uncg.edu), Senior Associate Athletic Director & Senior Women’s Administrator (jody.smith@uncg.edu), Assistant Athletic Director for Health and Sports Performance (jmmccloy@uncg.edu), head coach and the respective sport oversight(s). The Assistant Athletic Director for Spartan Academic Support Services will provide the FAR with the names and contact information for the concussed S-A’s professors.

2) The FAR will then contact the S-A’s professors to inform them of the injury by forwarding the “Faculty Information Sheet for Concussed Student-Athlete” and that daily progress evaluations are being conducted by the AT staff.

3) The student will meet with an OARS staff member to discuss and determine appropriate academic accommodations and draw up Faculty Accommodation Letters that the student can give to his/her instructors or OARS will send to the instructors based on the severity of the student’s condition. OARS will be provided with the most recent evaluation, symptom checklist and SOAP notes to assist in determining appropriate accommodations. The Assistant Athletic Director for Spartan Academic Support Services will be copied on the e-mail from OARS.

4) Upon resolution of symptoms and/or improvement of objective evaluation scores, the AT will contact all previously mentioned staff members to indicate that academic accommodations are no longer necessary. The OARS will then communicate with the involved faculty.

**In addition to the potential accommodations to be considered listed below, the S-A will also be excused from athletic study hall and mandatory team functions (observing practice, film sessions and community service) to allow for additional cognitive rest during this time.**

Optional list of accommodations to be considered based upon symptoms include, but are not limited to:

- Excused class absences
- Excused from physical activity
- Rescheduled test/project date or due date
- Additional time to complete assignments
- Ability to make up missed course work
- Additional time to complete test
- Alternate test taking environment
- Alternate note taking
- Limited exposure to electronic media

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Other accommodations may be determined appropriate for the student reflective of their individual circumstances. All academic accommodations will be made by a member of the OARS staff who will continue to follow each case through the healing process. These accommodations may last up to two weeks but, in rare cases, could last up to a month or longer. S-As with accommodations lasting more than two weeks, will be re-evaluated by the team physician and OARS for continued accommodations. It is important to note that each concussion will be different and no two concussions are alike.

**RETURN TO PLAY**

Continued post-concussive symptoms, prior concussion history and any diagnostic testing results along with neuropsychological testing and physical exam, will be utilized when establishing a timeline for a S-A’s return to activity. It is important to note that this timeline could last over a period of days, weeks or months, and may lead to a potential medical disqualification from UNCG athletics. All cases will be handled on a case-by-case basis.

S-As who have symptoms lasting more than 5 days or a return of symptoms with cognitive or physical activity will be further evaluated by a UNCG team physician for consideration of additional diagnosis and concussion management options. These re-evaluations will occur as needed until all symptoms have resolved and the SA is participating in normal activity. Additional diagnoses may include but are not limited to:

- Post-concussion syndrome
- Sleep dysfunctions
- Migraines or other headache disorders
- Mood disorders
- Ocular/vestibular dysfunctions

The return to play (RTP) decision must be individualized for the specific circumstances of each concussion. As there is no percentage threshold or score for RTP, the AT, in consultation with the treating physician, should exercise sound clinical judgment throughout the RTP process. A S-A should be asymptomatic at rest for 24 hours and return to baseline neurocognitive and balance levels, prior to the initiation of the RTP protocol past the light aerobic exercise phase, unless otherwise instructed by a team physician. The RTP protocol, figure 1, is designed to increase cardiovascular and sport specific activities in a gradual fashion. Progression through the incremental RTP protocol must be supervised and documented by an AT on a daily basis. Documentation should include return of symptoms, as well as neurocognitive and balance exams to track recovery. Should symptoms return during exertional testing, the S-A is to report this immediately and testing will be discontinued. The S-A will resume rest for the remainder of the day and until asymptomatic prior to returning to the step they had been attempting when symptoms appeared. The duration of this additional rest will be decided on a case by case basis. Progression through the RTP will vary for each individual. RTP should be considered only after a S-A is free of concussion symptoms at rest as well as during and after exertion.
**Figure 1**

<table>
<thead>
<tr>
<th>Rehabilitation Stage</th>
<th>Functional Exercise @ Each Stage</th>
<th>Objective of Each Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptom limited activity</td>
<td>Daily activities which do not provoke symptoms</td>
<td>Recovery</td>
</tr>
<tr>
<td>Light aerobic exercise</td>
<td>Walking or stationary biking at slow to medium pace, no resistance training</td>
<td>Increase HR</td>
</tr>
<tr>
<td>Sport-specific exercise</td>
<td>Running drills with no head impact</td>
<td>Add movement</td>
</tr>
<tr>
<td>Non-contact training drills</td>
<td>Harder training drills (passing/shooting drills), may begin resistance training</td>
<td>Exercise, coordination, and cognitive load</td>
</tr>
<tr>
<td>Full contact practice</td>
<td>Following medical clearance, participation in full training</td>
<td>Assess functional skills, restore confidence</td>
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<tr>
<td>Return to Competition</td>
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</tbody>
</table>

Final determination of S-A return to play decisions will be made by the UNCG team physician or his/her medically qualified designee. This includes but is not limited to members of the UNCG Department of Athletic Training.

**RETIREMENT GUIDELINES**
The decision to permanently retire from competitive sports due to concussions or concussion related problems is a complex decision. Situations where this might be considered would include but not be limited to: multiple lifetime concussions (particularly if there is evidence that smaller forces are sufficient to cause a concussion); prolonged recovery courses; diminished academic performance; evidence of a head or neck lesion that would increase the risk of future concussion. This decision would be a team effort with input from the S-A, family, AT, team physician, coaching staff and any other appropriate medical professionals deemed necessary.

**REDUCING HEAD TRAUMA EXPOSURE**
The Intercollegiate Athletic Department (ICA) at UNCG works to prevent and minimize injuries, including head trauma, in all sports. ICA staff will do this by:

- Yearly concussion education for S-As, coaches, administrators, ATs and physicians
- CPR/AED and First Aid certification for all coaches
- Adherence to the Independent Medical Care Guidelines outlined by the NCAA
- Coaching of proper technique to all S-As, regardless of sport
- Taking a “safety first” approach to sport

**SUMMARY:**
The UNCG Department of Athletic Training is committed to providing quality health care services for all S-As. As such, UNCG is very proactive in the assessment and management of concussions. The goal is to limit the risks of concussions associated with athletics and the potential catastrophic and long-term complications from concussions. In order to accomplish this goal, UNCG will take a “safety first” approach to sports in order to minimize the exposure to concussions for our S-As.
Appendix A

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.

   • 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.

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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**

**Baseline Testing**
Balance, cognitive and neurological tests that help medical staff manage and diagnose a concussion.

**Concussion**
If you show signs of a concussion, NCAA rules require that you be removed from play and medically evaluated.

**Recovery**
Your school has a concussion management plan, and team physicians and athletic trainers are required to follow that plan during your recovery.

**Return to Learn**
Return to school should be done in a step-by-step progression in which adjustments are made as needed to manage your symptoms.

**Return to Play**
Return to play only happens after you have returned to your preconcussion baseline and you've gone through a step-by-step progression of increasing activity.

For more information, visit ncaa.org/concussion.

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Student-Athlete Concussion Statement

_____ I understand that it is my responsibility to report all suspected injuries and illnesses to a member of the UNCG Sports Medicine staff (i.e. athletic trainer or team physician).

Initial

_____ I have read, understand and been given a copy of the NCAA Sport Science Institute’s Concussion Safety, What Student Athletes Need to know.

Initial

After reading the NCAA Sport Science Institute’s Concussion Safety, What Student Athletes Need to know, I am aware of the following information:

_____ A concussion is a brain injury and I am aware of the signs and symptoms of a concussion.
Initial

_____ I also acknowledge a concussion is difficult to see and the signs and symptoms may not show up for hours or days.
Initial

_____ A concussion can affect a person’s ability to perform everyday activities and affect reaction time, balance, sleep and classroom performance.
Initial

_____ Following a concussion, the brain needs time to heal. An athlete is much more likely to have a repeat concussion if he/she returns to play before the symptoms resolve.
Initial

_____ In rare cases, repeat concussions can cause permanent brain damage, even death.
Initial

_____ The long-term effects of concussions are not fully understood and multiple concussions may lead to degenerative brain disease and cognitive/emotional difficulties later in life.
Initial

_____ If I suspect a teammate has a concussion, I will be responsible for reporting these suspicions to my athletic trainer or team physician.
Initial

_____ NCAA rule require university medical staffs to manage your concussion independent of the coaching staff or other non-medical influence.
Initial

_____ If I have received a blow to the head or body that results in known or suspected concussive-like symptoms, I will inform my coach and athletic trainer or team physician that it may not be possible for me to return to play in a game or practice until I have received medical clearance from a qualified professional.
Initial

_____ I acknowledge that, if I am professionally diagnosed with a concussion, the UNCG Student Health Center, UNCG Office of Accessibility Resources and Services, Dean of Students Office and my professors may be notified by a member of the UNCG Athletic Department. This is done so that academic modifications may be considered to allow for cognitive rest.

Printed Name of Student-Athlete

Signature of Student-Athlete

Date

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Appendix C

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

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

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

What can I do to keep student-athletes safe?

<table>
<thead>
<tr>
<th>What can I do?</th>
<th>Preseason</th>
<th>In-Season</th>
<th>Time of Injury</th>
<th>Recovery</th>
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<td></td>
<td>Create a culture in which</td>
<td>Know the signs and symptoms of</td>
<td>Remove athletes from play</td>
<td>Follow the recovery and return-to-play</td>
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<td>concussion reporting is</td>
<td>concussion.</td>
<td>immediately if you think they</td>
<td>protocol established by team</td>
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<td>encouraged and promoted.</td>
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<td>have a concussion and refer</td>
<td>physicians and athletic</td>
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<td>them to the team physician or</td>
<td>trainers.</td>
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<td>athletic trainer.</td>
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<td>Why does it matter?</td>
<td>Athletes who don’t</td>
<td>The more people who know what to</td>
<td>Early removal from play can</td>
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<td>immediately seek care for a</td>
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<td>more likely a concussion will</td>
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<td>longer to recover.</td>
<td>be identified.</td>
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<td>Tips and strategies</td>
<td>Be present when your</td>
<td>Check in with your team</td>
<td>Provide positive reinforcement</td>
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<td>team physician or athletic</td>
<td>physician or athletic trainer if</td>
<td>when an athlete reports a</td>
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<td>trainer provides concussion</td>
<td>you want to learn more about</td>
<td>suspected concussion.</td>
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<td>education material to your team.</td>
<td>concussion safety.</td>
<td>Tell athletes that decisions</td>
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<td></td>
<td>Tell your team that this matters to you.</td>
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<td>related to their return to play</td>
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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.
Appendix D

Intercollegiate Athletics Concussion Statement

I understand that it is my responsibility to report all suspected injuries and illnesses to a member of the UNCG Sports Medicine staff (i.e. certified athletic trainer or team physician).

I have read, understand, and been given a copy of the NCAA Sport Science Institute’s Concussion Safety, What Coaches Need to Know and the UNCG Concussion Management Policy.

After reading the NCAA Sport Science Institute’s Concussion Safety, What Coaches Need to Know, I am aware of the following information:

A concussion is a brain injury and I am aware of the signs and symptoms of a concussion.

I also acknowledge a concussion is difficult to see and the signs and symptoms may not show up for hours or days.

A concussion can affect a person’s ability to perform everyday activities and affect reaction time, balance, sleep and classroom performance.

Following a concussion, the brain needs time to heal. An athlete is much more likely to have a repeat concussion if he/she returns to play before the symptoms resolve.

In rare cases, repeat concussions can cause permanent brain damage, even death.

The long-term effects of concussions are not fully understood and multiple concussions may lead to degenerative brain disease and cognitive/emotional difficulties later in life.

If I suspect a Student Athlete has a concussion, I will be responsible for reporting these suspicions to my athletic trainer or team physician.

NCAA rules require university medical staffs to manage concussions independent of the coaching staff or other non-medical influence.

If an athlete has received a blow to the head or body that results in known or suspected concussion, I understand that it may not be possible for the athlete to return to play in a game or practice until he/she has received medical clearance from a qualified professional.

I understand that, if a student-athlete is diagnosed with a concussion, the UNCG Student Health Center, Office of Accessibility Resources and Services, Dean of Students Office and their professors may be notified by a member of the athletic department. This is done so that academic modifications may be considered to allow for cognitive rest.

Printed Name of ICA Staff Member

Signature of ICA Staff Member

Date

Revised 08/4/2017
Concussion Information Sheet

You have suffered a head injury and must be watched closely by another person for 24 hours. This could be a roommate, teammate or a parent.

If you show any of the following symptoms or signs after your head injury, you or the person watching you should call your athletic trainer and go to the Emergency Room: Your athletic trainer can be reached at ___________________.

- Any decrease in the level of consciousness
- Any increase in the severity of symptoms
- An increase in the number of symptoms
- Any weakness or numbness in the arms or legs
- Vomiting that will not stop or that starts several hours after your injury
- Abnormal respiration, pulse, blood pressure
- Cannot move parts of your body or face; vision or speech problems
- Seizure (any jerking of the body or limbs)
- Neck pain

You may use acetaminophen (Tylenol) for headache or other pain, but do NOT use ibuprofen, aspirin or any other pain pills.

You may wish to consume 2g-3g/day of DHA Omega 3 supplement capsules.

You may use icepacks on your head and neck for comfort.

Eat a light diet.

Limit texting, watching television and using the computer.

It is ok to go to sleep and get a full night’s rest. There is no need to wake up every hour.

Do not take part in any strenuous activity until cleared by your athletic trainer.

Do not drink alcohol or eat/drink spicy foods or beverages.

Revised 08/4/2017
Call (336-334-5440) and make an appointment to visit the Office of Accessibility Resources and Services during business hours (M-F 8:00am-5:00pm) on _______________.

See your Athletic Trainer ________________ at___________.

______________________________________________________________________________________________________________

Student-Athlete Printed Name   Student-Athlete Signature   Date
______________________________________________________________________________________________________________

Responsible Adult Printed Name   Responsible Adult signature   Date
______________________________________________________________________________________________________________

Athletic Trainer Printed Name   Athletic Trainer Signature   Date
## Faculty Information Sheet for Concussed Student-Athlete

<table>
<thead>
<tr>
<th>Student-Athlete</th>
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</thead>
<tbody>
<tr>
<td>Date of Injury</td>
<td></td>
</tr>
<tr>
<td>Date of Concussion Diagnosis</td>
<td></td>
</tr>
<tr>
<td>Faculty Athletic Representative</td>
<td></td>
</tr>
<tr>
<td>Treating Certified Athletic Trainer</td>
<td></td>
</tr>
<tr>
<td>Treating Physician</td>
<td></td>
</tr>
</tbody>
</table>

Please be advised that the UNCG Student-Athlete (S-A) identified above has sustained a concussion while representing the university in athletic participation. This concussion has been diagnosed by the physician and/or the Certified Athletic Trainer identified above. Please do not hesitate to contact either individual if you have questions.

By signing this document, I hereby consent for the UNCG Department of Athletic Training to discuss my current concussion and concussion history with the Office of Accessibility Resources and Services (OARS), the Faculty Athletic Representative, the Dean of Students Office and my academic professors.

Printed Name_________________________ Date___________________________

Signature___________________________

Revised 08/4/2017
**What is a concussion?**

According to the new consensus statement on concussion in sport, a concussion is a traumatic brain injury induced by biomechanical forces. Several common features that may be utilized in clinically defining the nature of a concussive head injury include:

- 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.
- Concussion typically results in the rapid onset of short-lived impairment of neurological function that resolves spontaneously. However, in some cases, signs and symptoms evolve over a number of minutes to hours.
- Concussion may result in neuropathological changes, but acute clinical signs and symptoms largely reflect a functional disturbance rather than a structural injury and, as such, no abnormality is seen on standard structural neuroimaging studies.
- Concussion results in a range of clinical signs and symptoms that may or may not involve loss of consciousness. Resolution of the clinical and cognitive features typically follows a sequential course. However, in some cases symptoms may be prolonged.


**What are some signs and symptoms of a concussion?**

A concussion can be very difficult to diagnose. Unlike most injuries, a concussion can present with almost no physical signs. Often diagnosis is determined by symptoms only. UNCG Department of Athletic Training staff members consider concussions to be very serious injuries. Signs and symptoms of a concussion include but are not limited to:

- Headache
- Pressure in the head
- Neck Pain
- Nausea/Vomiting
- Dizziness
- Blurred Vision
- Balance Problems
- Sensitivity to light
- Sensitivity to noise
- Feeling slowed down
- Feeling like in a fog
- Don’t feel right
- Difficulty concentrating
- Difficulty remembering
- Fatigue or low energy
- Confusion
- Drowsiness
- Trouble falling asleep
- More emotional
- Irritability
- Sadness
- Nervous or anxious

**Please note that the S-A may only be experiencing some of these signs and symptoms.**

**UNCG Intercollegiate Athletics Concussion Management**

Our concussion management plan is designed to not only protect the S-A on the field of play but also in the classroom. Since many concussions cause cognitive disturbances, we not only take the S-A out of competition, but also recommend modifying his/her classroom activity. As part of our concussion management plan, concussed S-As will meet with OARS to discuss appropriate academic accommodations. If OARS determines accommodations are warranted, a Faculty Accommodation Letter will be created for the athlete’s professors. Once the S-A’s signs and symptoms have returned to normal, an incremental return to learn/play progression will be initiated. This allows the S-A to be successful in both the classroom and on the athletic field.

Revised 08/4/2017
The goal of this management plan is to decrease the length of time signs and symptoms are present and decrease the chance of further brain injury and long term consequences.

If you would like to read the entire concussion management policy, please contact the Assistant Athletic Director for Health and Sports Performance within Intercollegiate Athletics, Jay McCloy MS, LAT, ATC. He can be reached at jmmccloy@uncg.edu