Concussion Management Guidelines
July, 2010

1. UGAA will require student-athletes to sign a statement in which student-athletes accept the responsibility for reporting their injuries and illnesses to the sports medicine staff, including signs and symptoms of concussions (attachment A). During the review and signing process student-athletes will watch a NCAA video on concussions and be provided with educational material on concussions (attachment B).

2. UGAA will have on file and annually update an emergency action plan (attachment C) 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. All athletics healthcare providers and coaches shall review and practice the plan annually. These sessions will be conducted prior to the start of the sport season. Staff will sign up with Ron Courson or Anna Randa. The UGAA compliance office will maintain a list of staff that have completed the requirement on file.

3. UGAA 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 Ron Courson (director of sports medicine) and Fred Reifsteck, MD (head team physician) for remediation.

4. UGAA shall have on file a written team physician–directed concussion management plan (attachment D) that specifically outlines the roles of athletics healthcare staff (e.g., physician, certified athletic trainer, nurse practitioner, physician assistant, neuropsychologist). In addition, the following components have been specifically identified for the collegiate environment:

a. UGAA coaches will receive a copy of the concussion management plan, a fact sheet on concussions in sport, and view a video on concussions annually. The UGAA compliance office will maintain a list of staff that have completed the requirement on file.

b. UGAA sports medicine staff members and other athletics healthcare providers will practice within the standards as established for their professional practice (e.g., team physician, certified athletic trainer, physical therapist, nurse practitioner, physician assistant, neuropsychologist). In addition, a baseline assessment will be recorded for each student-athlete with a known history of concussion. The same baseline assessment tools should be used post-injury at appropriate time intervals. The baseline assessment should include a standardized balance assessment (Neurocom) and neuropsychological testing (computerized IMPACT test). Neuropsychological testing has been shown to be effective in the evaluation and management of concussion. The neuropsychological testing program should be performed in consultation with a neuropsychologist. Post injury neuropsychological test data will be interpreted by a neuropsychologist prior to return to play. Neuropsychological testing has proven to be an effective tool in assessing neurocognitive changes following concussion and can serve as an important component of an institution’s concussion management plan. However, neuropsychological tests should not be used as a standalone measure to diagnose the presence or absence of a concussion as UGAA uses a comprehensive assessment by its sports medicine staff.

c. When a student-athlete shows any signs, symptoms or behaviors consistent with a concussion, the athlete will be removed from practice or competition, by either a member of the coaching staff or sports medicine staff. If removed by a coaching staff member, the coach will refer the student-athlete for evaluation by a member of the sports medicine staff. During competitions, on the field of play injuries will be under the purview of the official and playing rules of the sport. UGAA staff will follow such rules and attend to medical situations as they arise. Visiting sport team members evaluated by UGAA sports medicine staff will be managed in the same manner as UGAA student-athletes.

de. 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. Student-athletes that sustain a concussion outside of their sport will be managed in the same manner as those sustained during sport activity.

f. The student-athlete will receive serial monitoring for deterioration. Athletes will be provided with written home instructions (attachment E) upon discharge: preferably with a roommate, guardian, or someone that can follow the instructions.
g. 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. Academic advisors and professors will be notified of student-athlete’s concussion, with permission for release of information from the student-athlete.

h. The student-athlete will be evaluated by a team physician as outlined within the concussion management plan. Once asymptomatic and post-exertion assessments are within normal baseline limits, return to play shall follow a medically supervised stepwise process.

i. Final authority for Return-to-Play shall reside with the team physician or the physician’s designee as noted in the concussion management flowchart.

5. UGAA will document the incident, evaluation, continued management, and clearance of the student-athlete with a concussion. Aggregate concussion numbers per sport will be reported to the Director of Athletics annually.

6. Athletics staff, student-athletes and officials will continue to emphasize that purposeful or flagrant head or neck contact in any sport should not be permitted.

Approved by: ____________________ Medical Director        Date: ________________
                Fred Reifsteck, M.D.

Approved by: ____________________ Neurosurgeon               Date: ________________
                Kim Walpert, M.D.

Approved by: ____________________ Dir. Sports Medicine        Date: ________________
                Ron Courson, ATC, PT, NREMT-I,CSCS

Approved by: ____________________ Ath. Tr. Curriculum Dir.     Date: ________________
                Mike Ferrara, PhD, ATC

Approved by: ____________________ Neuropsychologist.          Date: ________________
                Steve Macciocchi, PhD

Reference Documents

1. NCAA and CDC Educational Material on Concussion in Sport. Available online at www.ncaa.org/health-safety
**UGAA Concussion Management Plan**

**Obtain Baseline Testing:** Symptom checklist, Neurocom and IMPACT testing data obtained for athletes in high-risk sports for concussion (baseball, basketball, cheerleading, diving, equestrian, football, gymnastics, pole vaulting, soccer and softball) or with pertinent medical history of concussion.

**Concussion Identified and Assessed:** Physical examination and assessment of concussion symptoms by medical staff (athletic trainer, physician assistant and/or physician); if physician not immediately available, athlete should be referred to physician for evaluation within 24 hours of injury if possible if not emergent; if emergent, athlete should be transported to closest emergency department; athlete held from all physical activity; given concussion information home instruction sheet; notify parent/guardian of concussion; Athlete repeats baseline testing with Symptoms checklist, Neurocom and IMPACT (within 24 hours of injury if possible).

**Concussion Management:** Athlete held from all physical activity; implement DHA Omega-3 supplementation (3 grams daily for 30 days or until asymptomatic if longer); re-assess athlete daily by medical staff; administer symptom checklist daily until completely asymptomatic; notify academic advisor (consideration of academic modifications/restrictions).

**Athlete Asymptomatic:** Athlete repeats baseline testing with Symptoms checklist, Neurocom and IMPACT (unless directed otherwise by physician and/or neuropsychologist).

**Test Results Return to Baseline:** Perform exertional testing; re-evaluation by physician for return to play decision.

**Test Results NOT Returned to Baseline:** When medically cleared by physician, repeat test battery; consider neuropsych consult with more detailed test battery.

When medically cleared by physician, repeat exertional testing; re-evaluation by physician for return to play decision.
Exertional Testing Protocol Following Concussion

Symptom checklist, Neurocom and IMPACT testing WNL

Exertional Testing Protocol
1. 10 min on stationary bike; exercise intensity <70% maximum predicted heart rate
2. 10 min continuous jogging on treadmill; exercise intensity <70% maximum predicted heart rate
3. Strength training: (i.e. push-ups, sit-ups, squats thrusts)
4. Advanced cardiovascular training: sprint activities
5. Advanced strength training: weight lifting exercises
6. Sport specific agility drills (no risk of contact)

If no change or increase in symptoms, move to next step.

Non-contact practice following completion of exertional protocol

If no change or increase in symptoms, move to next step.

Limited to full contact practice

If no change or increase in symptoms, final return to play decision made by medical
SRS: Day 1 2 3 4 5 6 7 _____

SRA: Day 1 2 3 4 5 6 7 _____

Day of Testing: Baseline

Name________________________________ Date _______________________________

Symptom Checklist: Circle “YES” if you have experienced the symptom within the last 24 hours or “NO” if you have not experienced the symptom over the last 24 hours.

1. Have you had a **headache** in the last 24 hours? YES / NO
2. Have you experienced **nausea** in the last 24 hours? YES / NO
3. Have you had any **difficulty balancing** in the last 24 hours? YES / NO
4. Have you experienced **fatigue** in the last 24 hours? YES / NO
5. Have you experienced **drowsiness** in the last 24 hours? YES / NO
6. Have you experienced **sleep disturbances** in the last 24 hours? YES / NO
7. Have you had **difficulty concentrating** in the last 24 hours? YES / NO
8. In the last 24 hours have you felt like you are “in a fog”? YES / NO
9. In the last 24 hours have you felt “slowed down”? YES / NO
10. Have your eyes been **sensitive to light** in the last 24 hours? YES / NO
11. Have you felt **sadness** in the last 24 hours? YES / NO
12. Have you experienced **vomiting** in the last 24 hours? YES / NO
13. Have your ears been **sensitive to noise** in the last 24 hours? YES / NO
14. Have you experienced **nervousness** in the last 24 hours? YES / NO
15. Have you had **difficulty remembering** things in the last 24 hours? YES / NO
16. Have you experienced **numbness** in the last 24 hours? YES / NO
17. Have you experienced any **tingling** sensations in the last 24 hours? YES / NO
18. Have you experienced **dizziness** in the last 24 hours? YES / NO
19. Have you experienced any **neck pain** in the last 24 hours? YES / NO
20. Have you been **irritable** in the last 24 hours? YES / NO
21. Have you experienced feelings of **depression** in the last 24 hours? YES / NO
22. Have you experienced **blurred vision** in the last 24 hours? YES / NO
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<th>DURATION</th>
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<td>Briefly</td>
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<td>2) Nausea</td>
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<td>3) Difficulty balancing</td>
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<td>4) Fatigue</td>
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<td>5) Drowsiness</td>
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<td>6) Sleep Disturbances</td>
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<td>7) Difficulty Concentrating</td>
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<td>8) Feeling “in a fog”</td>
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<td>9) Feeling “slowed down”</td>
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<td>10) Sensitive to Light</td>
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<td>11) Sadness</td>
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<td>12) Vomiting</td>
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<td>13) Sensitive to Noise</td>
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<td>14) Nervousness</td>
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<td>15) Difficulty Remembering</td>
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<td>16) Numbness</td>
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<td>17) Tingling</td>
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<td>18) Dizziness</td>
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<td>19) Neck Pain</td>
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<td>20) Irritable</td>
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<td>21) Depression</td>
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<td>22) Blurred Vision</td>
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Concussion Information: Home Instruction Sheet

Name ____________________________ Date ____________________________

You have had a head injury or concussion and need to be watched closely for the next 24-48 hours.

<table>
<thead>
<tr>
<th>It is OK to:</th>
<th>There is no need to:</th>
<th>DO NOT:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use Tylenol (acetaminophen)</td>
<td>Check eyes with a light</td>
<td>Drink Alcohol</td>
</tr>
<tr>
<td>Use an ice pack to head/neck for</td>
<td>Wake up every hour</td>
<td>Eat spicy foods</td>
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<tr>
<td>comfort</td>
<td>Stay in bed</td>
<td>Drive a car</td>
</tr>
<tr>
<td>Eat a light meal</td>
<td></td>
<td>Use aspirin, Aleve, Advil or other</td>
</tr>
<tr>
<td>Go to sleep</td>
<td></td>
<td>NSAID products</td>
</tr>
</tbody>
</table>

Special Recommendations: ____________________________________________________________

__________________________________________________________________________________

If any of these problems develop, call your athletic trainer or physician immediately.

Athletic Trainer ____________________________ Phone ____________________________

Physician ____________________________ Phone ____________________________

You need to be seen for a follow-up examination at ________ AM/PM at: ____________________

Recommendations provided to ____________________________

Recommendation provided by ____________________________

WATCH FOR ANY OF THE FOLLOWING PROBLEMS:

- Worsening headache
- Vomiting
- Decreased level of Consciousness
- Dilated Pupils
- Increased Confusion
- Stumbling/loss of balance
- Weakness in one arm/leg
- Blurred Vision
- Increased irritability
Concussion Awareness Letter

The University of Georgia Sports Medicine and Student Services/Academic Counseling Departments would like to inform you that _______________ sustained a concussion during ________ on __/__/__. He/she was evaluated by_______________, MD, team physician. ________ will undergo additional concussion testing today. A concussion or mild traumatic brain injury can cause a variety of physical, cognitive, and emotional symptoms. Concussions range in significance from minor to major, but they all share one common factor — they temporarily interfere with the way your brain works. We would like to inform you that during the next few weeks this athlete may experience one or more of these signs and symptoms.

- Headache
- Balance Problems
- Diplopia - Double Vision
- Photophobia – Light Sensitivity
- Misophonia – Noise Sensitivity
- Feeling Sluggish or Groggy
- Difficulty Concentrating

- Nausea
- Dizziness
- Confusion
- Difficulty Sleeping
- Blurred Vision
- Memory Problems

As a department, we wanted to make you aware of this injury and the related symptoms that the student athlete may experience. Although the student is attending class, please be aware that the side effects of the concussion may adversely impact his/her academic performance. Any consideration you may provide academically during this time would be greatly appreciated. We will continue to monitor the progress of this athlete and anticipate a full recovery. Should you have any questions or require further information, please do not hesitate to contact us.

Ron Courson, ATC, PT, NREMT-I, CSCS
Director of Sports Medicine
(706) 542-9060
courson@sports.uga.edu

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