Mount Holyoke College Concussion Protocols for Athletics

1) Education
   a) All coaches, administrators, and associated health care professionals will be educated regarding the seriousness of a possible mild traumatic brain injury (MTBI), the use of this policy, and NCAA policy disqualifying an athlete from play in the same day as a suspected MTBI. All personnel will sign the “MHC Acknowledgement and Agreement Form” stating that they have received and understood this information. (Appendix A Student Athlete; Appendix B Coaches/Admin)

   b) At the All-Coaches meetings and the team NCAA Compliance meetings the athletic trainers will review the following information with all Head Coaches, relevant Administrators, and Student-Athletes:
      i) NCAA and CDC handouts will be distributed. Appendix C
      ii) Concussion definition: A concussion or Mild Traumatic Brain Injury (MTBI) is a complex pathophysiological process affecting the brain, induced by traumatic biomechanical forces secondary to direct or indirect forces to the head. Disturbance of the brain function is related to neurometabolic dysfunction, rather than structural brain injury. This injury needs time and rest (physical and mental) to heal properly. Resolution of the clinical and cognitive symptoms typically follows a sequential course; however, it is important to note that in a small percentage of cases, post-concussive symptoms may be prolonged. The long term implications of concussions are still not well known so every precaution must be taken both to prevent and properly treat concussions if they do occur.

         (1) Signs and Symptoms. There are 4 categories of symptoms: physical, cognition, emotional and sleep. Common symptoms:
               (a) Headache 75%
               (b) Difficulty concentrating
               (c) Fatigue
               (d) Drowsiness
               (e) Dizziness
               (f) Fogginess
               (g) Feeling slowed down
               (h) Light sensitivity
               (i) Balance problems
               (j) Difficulty with memory
               (k) Nausea/vomiting

      iii) It is also important to note the following facts related to concussions:

              (1) No direct contact is necessary (egg analogy).
              (2) Helmets have limited capacity to protect the brain (protects the skull-egg shell, not the egg itself).
              (3) Magnitude of impact is not related to severity of injury.
              (4) Women, as well as younger athletes, have increased incidence and prolonged recovery.
              (5) No abnormality on standard structural neuroimaging studies is seen; MRIs and CT scans are usually normal.
“Symptom reporting” low correlation with actuality, i.e. “feeling dizzy.” Many who said “No” did poorly in balance testing. Athletes are unaware of masking symptoms (sometimes). Speaks to conservative care and erring on side of injury.

Cumulative and chronic effects of concussions (0, 1-2, 3+). Significant difference between each category, in terms of delayed healing, headache, and (3+) Quality of Life. Additionally, 3+ concussions has 3xs greater chance of depression and earlier onset of Alzheimer’s.

iv) Recognize, Remove, Refer!
   (1) Recognize concussion: All coaches should be familiar with the signs and symptom of concussions.
   (2) Remove from activity: If the coach suspects an athlete has sustained a concussion, the athlete should be removed from activity until evaluated.
   (3) Refer the athlete to be evaluated: If away, athlete should present signs and symptoms to host athletic trainer. Coaches should report all head injuries to a MHC Certified Athletic Trainer.

2) Baseline Testing
   a) All athletes on a high to moderate risk sport (SC, FH, RD, BB, LX, Diving, TK—pole vaulters and high jumpers only) are required to do baseline testing for ImPACT and Sway prior to the first day of practice
   b) About ImPACT
      i) ImPACT (Immediate Post-Concussion Assessment and Cognitive Testing) is a research-based software tool utilized to evaluate recovery after concussion.
      ii) ImPACT evaluates multiple aspects of neurocognitive function, including memory, attention, brain processing speed, reaction time, and post-concussion symptoms
   c) About Sway Balance
      i) Assesses Balance and Motion Reaction (a function of Cognition). Note: This will be new as of Fall 2015 so all incoming athletes on the above mentioned teams will need to perform 3 baselines test. In following years only new members to the team will have to do the 3 baseline tests; return players can do just one each. Tests must be done on a plain hard surface-no carpeting, grass, etc.

3) Assessment, Care, and Evaluation
   a) “On-Field” Assessment
      i) The following situations require immediate transport. Any athlete who has any of the following symptoms/signs should be transported via ambulance to the hospital designated by the EMTs.
         (1) Deterioration of neurological function
         (2) Decreasing level of consciousness
         (3) Decrease or irregularity in respirations
         (4) Decrease or irregularity in pulse
         (5) Unequal, dilated, or un-reactive pupils
         (6) Any signs or symptoms of associated injuries, spine or skull fracture, or bleeding
         (7) Mental status changes: lethargy, difficulty maintaining arousal, confusion or agitation
         (8) Seizure activity
(9) Cranial nerve deficits
(10) Repetitive emesis.

ii) Note: Any athlete who was sustained a loss of consciousness (LOC) or demonstrates any of the following signs of a cervical spine injury will be immobilized with in-line stabilization techniques until the ambulance arrives:
(1) Unconsciousness or altered level of consciousness
(2) Bilateral neurological findings or complaints
(3) Significant midline spine pain with or without palpation
(4) Obvious spinal deformity
(5) After ruling out a cervical spine injury, the athlete may be assisted to the “sideline” for further evaluation

iii) Evaluation Procedures for those not requiring immediate transportation.
(1) MHC Brain Injury Evaluation Form (Appendix D, including: Symptom checklist, Orientation, Memory, Concentration, Neurological Assessment and a set of vitals.
(2) The Sway testing will be done on a ‘plain’ surface (pavement, indoor floor with no carpeting).
(3) Any athlete who exhibits any signs/symptoms of a concussion for any length of time will be held out of play for the remainder of the day.

iv) Suggested guidelines for management of concussions that happen off campus:
(1) Athlete/coaches will follow recommendations of the host Athletic Trainer. If directed by host ATC, athlete should be taken to closest hospital to site of competition for prompt evaluation.
(2) Mount Holyoke College athletic training staff should be notified as soon as possible. Upon return to campus the athlete should be brought to the Health Center if they are open. Hours are: Monday-Friday: 8:00am-10:00pm; Saturday-Sunday: 11am-6:00pm.
(3) If closed, the coach should give the athlete the Mount Holyoke College Athletic Training Home Instruction Sheet for Concussions. The coach should instruct the athlete that they must be seen the next morning at the Health Center. The coach should leave a message at the Health Center #538-3317 regarding the incident and to expect to see this athlete the next morning.

b) Follow-up Evaluation:
   i) Each day following the injury, the athlete will complete the Graded Symptoms Checklist to monitor recovery.
   ii) Vestibular/Ocular Motor Screening (VOMS) test should be performed within 3 days of the injury. (Appendix D)
   iii) Oral and written home care instructions will be given to the athlete and to the athlete’s teammate/responsible friend as well (Appendix E: Health Services and Athletic Training Health Care Plan)
   iv) All athletes sustaining a concussion will be referred to the Health Center within 48 hours for further evaluation. If symptoms last more than 1 week and/or due to the severity or worsening of symptoms, the athlete should be referred back to the Health Center a second time and be followed once/week until symptoms are resolved. The Health Center will assist the athlete with accessibility and academic issues. If symptoms continue into week 3 the athlete should be referred to a medical provider
with expertise in the treatment of concussions for further evaluation and possible ‘rehab’.

v) During recovery the athlete may be allowed simple exercise, i.e. walking without stimulation or head movement to be determined on an individual basis. VOMS may also be used as a rehab tool; given to athletes with cessation of test when symptoms worsen.

4) Return-to-Play Criteria
a) Once symptom-free for 2 days as measured by the Graded Symptom Checklist, the athlete’s neurocognitive status will be assessed by taking the ImPACT and Sway Balance tests again and results compared to their respective baselines. Results will be evaluated and deemed passable by the Team Physician before the Graduated Return-to-Play Protocol can be initiated.
   i) If the Post Concussion ImPACT test shows deficits, the athlete should wait 4 days before retaking the test and starting the Graduated Return-to-Play Protocol.
   ii) Sway Balance deficits. Will be evaluated on an individual basis and will account for extenuating circumstances as in ankle sprains and other lower extremity injuries that may have been incurred during the season.

b) Mount Holyoke College reserves the right to bar further participation in Athletics based on the following criteria: history of concussions, evidence that smaller forces are incurring concussions, and symptoms lasting longer than 3 months.

5) Graduated Return-to-Play Protocol: Appendix F and G
a) This progression is designed for athletes with a first-time simple concussion and may be altered to take longer depending on the following factors: previous hx of concussion, duration and type of symptoms and nature of sport athlete participates in.

b) If the athlete demonstrates any concussion or neurologic symptoms during the exercise challenge or within 24 hours of the challenge, they will rest till asymptomatic for 24 hours prior to re-challenging them at the previous symptom-free level.
APPENDIXES

Appendix A

MHC Student Athlete’s Concussion Acknowledgement and Agreement Form

Date:_____________  Team:______________

I have received information regarding the signs and symptoms of a concussion. I understand I need to report any such signs and/or symptoms in myself or in a teammate if I am aware of any, to the athletic training staff.

Please sign:  Please print:

_____________________________  ______________________________
_____________________________  ______________________________
_____________________________  ______________________________
_____________________________  ______________________________
_____________________________  ______________________________
_____________________________  ______________________________

Appendix B

MHC Coach’s/Administrator Acknowledgement and Agreement Form

Date:_____________

I have received information regarding the signs and symptoms of a concussion and how I should manage an athlete exhibiting any signs of a concussion. I agree to do my best to recognize a concussion, to remove said athlete from play, and refer to a certified athletic trainer.

Please sign:  Please print:

_____________________________  ______________________________
_____________________________  ______________________________
Appendix C

Educational Handouts (NCAA and CDC)


Appendix D

Brain Injury Evaluation

Name____________________ Year____ Team____ Date: Injury____ Today____

1. Mechanism of injury:________________________________________________
   Competition (if away____) ___Practice ___Conditioning

2. HX:
   a. Do you have a history of prior concussions? No____ Yes (#)____
      i. Longest duration of symptoms: ____days ____weeks ____months
      ii. Most recent ______
   b. Do you have a history of headaches and/or migraines? No____ Yes____
   c. Do you have a history of learning disabilities and/or ADD/ADHD? No____ Yes____
   d. Do you have a history of anxiety, depression, a sleep disorder, or any other psychiatric history? No____ Yes____

3. Amnesia:
   a. Retrograde. Are there any events before the injury that you have no memory of?
      No____ Yes___ Duration____________
   b. Anterograde. Are there any events after the injury that you have no memory of?
      No___ Yes__ Duration____________

4. Did you lose consciousness? No____ Yes___ Duration________

5. Medications:
   a. Do you take any medications? RX: No____ Yes____
      OTC: No____Yes____

List:_____________________________________________________________

Cognitive assessment: Standardized assessment of concussion (SAC)

<table>
<thead>
<tr>
<th>Orientation (one point for each correct answer)</th>
<th>Initial</th>
<th>Follow Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>What month is it? Day? Year?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What is the score? Who scored last?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What is your coach’s name?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What half is it?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Immediate memory

<table>
<thead>
<tr>
<th>List</th>
<th>Alternative words lists</th>
<th>Initial/Delayed</th>
<th>Follow Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elbow</td>
<td>Candle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apple</td>
<td>Paper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carpet</td>
<td>Sugar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saddle</td>
<td>Sandwich</td>
<td></td>
<td></td>
</tr>
<tr>
<td>bubble</td>
<td>Wagon</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Concentration: Digits Backwards**

<table>
<thead>
<tr>
<th>List</th>
<th>Alternate digit lists</th>
<th>Initial</th>
<th>Follow Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-9-3</td>
<td>6-2-9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-8-1-4</td>
<td>3-2-7-9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-2-9-7-1</td>
<td>1-2-5-8-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-1-8-4-6-2</td>
<td>8-3-1-9-6-4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Concentration: Months in reverse order**

<table>
<thead>
<tr>
<th>Date</th>
<th>Initial</th>
<th>Follow Up</th>
</tr>
</thead>
</table>

**Math (100 minus 7’s: 100-93-86-79-72-65-58-51…)**

---

### Symptom Evaluation

<table>
<thead>
<tr>
<th>Date and time</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Headache/Head pressure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neck Pain/numbness/tingling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nausea</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symptom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vomiting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dizziness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor balance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vision problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photophobia (lt. sensitivity)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phonophobia (noise “”)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feels foggy/not right</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor concentration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor memory</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fatigue/Low energy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confusion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drowsiness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleep problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More emotional or sad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irritability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Physical Exam +</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neck</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speech</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EOM/Pupils</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix E: VOMS

On a scale from 0-10, with 0 being no current symptoms and 10 representing the worst symptom you have ever experienced regarding the following

a. Headache
b. Dizziness
c. Nausea
d. Fogginess

ii. **Vestibulo-ocular movements** stabilize the eyes relative to the external world, thus compensating for head movements. The eyes automatically compensate for the head movement by moving the same distance but in the opposite direction, thus keeping the image of the object at more or less the same place on the retina.

iii. **Smooth pursuit** movements are much slower tracking movements of the eyes designed to keep a moving stimulus on the fovea.
   1. Stand 1 yard away from patient.
   2. Patient keeps head still during the test.
3. Practitioner slowly and steadily moves an object within field of vision (X pattern).

4. Positive Test: Nystagmus or symptoms

iv. Saccades are rapid, ballistic movements of the eyes that abruptly change the point of fixation.
   1. Stand 1 yard from patient.
   2. Patient keeps head still during the test.
   3. Practitioner holds two fingers 6” apart.
   4. Patient looks back and forth with eyes only, with head stable for 20 seconds.
   5. Positive test: Eyes over- or undershoot stationary fingers, or symptoms

v. Vergence movements align the fovea of each eye with targets located at different distances from the observer. **Near Point Convergence (Distance):**
   1. Patient will focus on an object.
   2. Practitioner will slowly move the object closer to the patient’s eyes.
   3. Patient will indicate when a single object becomes 2.
   4. Patient will hold the object at the point of vision change.
   5. Practitioner will measure distance.
   6. Positive test:
      a. >9cm indicates convergence insufficiency
      b. >20cm neuro-ophthalmology referral

vi. **Vestibular-Ocular Reflex (VOR): Horizontal and Vertical**
   1. Stand 1 yard from patient.
   2. Patient keeps eyes fixed on an object 1 foot away from patient in center of visual field.
   3. Patient moves head back and forth for 20 seconds.
   4. Positive test: Nystagmus, slowed eye movement, or symptoms

vii. **Visual Motion Sensitivity**
   1. Body, head, and focus point move with fixed gaze on focus point.
   2. 20 seconds.
3. Rotation pattern 120 degrees in the frontal plain, right to left.

Appendix F

Health Services and Athletic Training
Concussion Care Plan

You have suffered a concussion, a jarring injury to the head that results in brain dysfunction. These guidelines will help you to prevent further injury and to speed your recovery. Most people recover completely within seven days. Unfortunately you can’t rush the recovery process. The key is to rest the mind and the body.

1. Get plenty of SLEEP at night and nap during the day if needed.

2. DRINK plenty of fluids and EAT regularly to provide appropriate blood sugar levels to your recovering brain cells.

3. You may take ACETAMINOPHEN (Tylenol) 650mg to 1000 mg every 6 hours if needed for your headache. Do not exceed recommended doses. Avoid ibuprofen and aspirin as they can increase the chances of bleeding.

4. Avoid physical activity until the symptoms have cleared completely. Intercollegiate athletes should consult the athletic trainer daily during the recovery period. Club sports and recreational

<table>
<thead>
<tr>
<th>Vestibular/Ocular Motor Test</th>
<th>Not Tested</th>
<th>Headache 0-10</th>
<th>Dizziness 0-10</th>
<th>Nausea 0-10</th>
<th>Fogginess 0-10</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline Symptoms</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smooth Pursuits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saccades - Horizontal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saccades - Vertical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convergence (Near Point)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Measure 1: ____cm</td>
</tr>
<tr>
<td>VOR – Horizontal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Measure 2: ____cm</td>
</tr>
<tr>
<td>VOR – Vertical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Measure 3: ____cm</td>
</tr>
<tr>
<td>Visual Motion Sensitive Test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7. If you have concerns about keeping up with your academic work be sure to inform your professors. You may also wish to contact your academic dean. The health center clinician can help you work with your dean during the recovery period.

**RED FLAGS**

It is important to monitor your symptoms and to ask friends or family members to watch for changes in mood and behavior.

Call the Health Center (413-538-2242) or go to the Emergency Room (413-538-2304 or x2304 from a campus line for ambulance/public safety) if you experience any of the following:

- Sudden worsening of your headache
- Seizure
- Increased drowsiness
- Vomiting
- Slurred speech
- Dizziness or difficulty walking
- Visual disturbances such as blurred or double vision
- Inability to recognize people or places
- Increasing confusion
- Weakness or numbness of the arms or legs
- Unusual behavior changes
- Increasing irritability
- Loss of consciousness
- Bleeding or clear drainage from your nose or ears
Follow-up plan:
Health Center staff will work with you to schedule regular follow-up visits in person and by phone to monitor your progress as you recover. For intercollegiate athletes health center clinicians and athletic trainers will work together to monitor your symptoms and plan for your return to play. Athletes should be reporting to the Athletic Training Room on a daily basis for a symptom check.

Appendix G

![5 Stage Post-Concussion Exertion Program Table]

**Figure 1.** Graduated Return-to-Play Protocol for athletes with a first-time, simple concussion.
Appendix H

Suggested Concussion Guidelines for Non-Traditional Sports

1. Crew
   a. Day 1- bike
   b. 2-bike
   c. 3-erg
   d. 4-row
2. Riding
   a. Day 1-bike
   b. 2-Strength Training
   c. 3-run
   d. 4-horse/walk
   e. 5-horse/canter/jumps
3. Swimming/Diving
   a. Bike
   b. Elliptical
   c. Swim, no flip turns or starts off blocks /trampoline work
   d. Full swim/Dive 1 meter
   e. Dive 3 meter
4. Track and Field
   a. Bike
   b. Run
   c. Throw. Weight training.
   d. Jump