
EAGLE CARE – A SPORT CLUB CONCUSSION MANAGEMENT MODEL

Concussion awareness has increased significantly in recent years. The National Collegiate Athletic Association (NCAA), National Athletic Trainers' Association (NATA), Centers for Disease Control and Prevention (CDC), and other professional and medical organizations have established guidelines for concussion management. The Department of Campus Recreation at the University of Mary Washington (UMW) recognizes the importance of having an appropriate concussion management model in place to safeguard the well-being of all student athletes participating in the Eagle Sport Clubs program. The Department of Campus Recreation has partnered with Mary Washington Healthcare and its Neurological Institute to create and sustain a viable concussion management program that respects the requirements of HIPPA (Health Insurance Portability Accountability Act) and FERPA (Family Educational Rights and Privacy Act) while guaranteeing the safe return-to-play of all student athletes following a mild Traumatic Brain Injury (mTBI). The program is titled Eagle Care.

CARE lays the groundwork for and provides an outline for the key components of the program.

C – Collaborate. UMW Campus Recreation collaborated with Mary Washington Healthcare to recognize the need for better concussion management for our 23 Eagle Sport Club teams. This collaboration led to the development of the Eagle Care model.

A – Acknowledge. UMW Campus Recreation and Mary Washington Healthcare acknowledge the importance of accurate assessment and management of all head injuries and the potential long-term effects of this injury on brain function. Preseason baseline brain function assessment is provided by the ImpACT (Immediate Post-Concussion Assessment and Cognitive Testing) program. The post-injury assessment and monitoring of all head injuries is performed by appropriately trained medical personal of the Mary Washington Healthcare system.

R – Recognize and Respond. The Eagle Care model allows for the timely recognition and response to any mTBI sustained by a student-athlete during their participation in a Department of Campus Recreation sponsored Sport Club practice or event. The model allows for the timely recognition and response of injuries sustained on our home venue and well as any away venue. The model recognizes that medical information is private and cannot be freely shared with third parties without the expressed written approval of an individual.

E – Educate. The Campus Recreation Professional Staff recognizes that compliance to any initiative requires knowledge of the need and importance of the initiative. Therefore, a thorough education component has been developed and utilized to educate student athletes, coaches, parents, staff, and UMW faculty and staff to the etiology of mTBI and to the appropriate follow-up management of the injury. This provides the best guarantee for the safe return of the student athlete to sports and academic endeavors.

Eagle Care is the product of the collaborative efforts of the following individuals:

- Mark Mermelstein, UMW Campus Recreation Director
- Bob Liebau, UMW Campus Recreation Associate Director

- Ian Rogol, UMW Head Athletic Trainer for Intercollegiate Athletics
- Dianne McKee, Mary Washington Healthcare Neurodiagnostics Manager
- Nicole Hall, Mary Washington Healthcare Neurodiagnostics Supervisor

The program was designed over the course of 2010 and 2011 with implementation of the program beginning August 2011. The following is a description of the components of the program.

EDUCATION AND BASELINE TESTING

The summary items for this component are:

1. Concussion education session for all sport club officers and coaches presented by the Department of Campus Recreation and UMW Hospital
2. Student-athlete signs participation agreement to include ImPACT baseline testing
3. ImPACT baseline testing for the following high risk sports: Cheerleading, Lacrosse, Rugby, Boxing, Field Hockey, Soccer, Polo, Women's Volleyball
4. Many sport-related concussions do not result in a loss on consciousness

Detailed points for education and baseline testing include the following:

- Concussions and other brain injuries can be serious and potentially life threatening injuries. Research indicates that these injuries can also have serious consequences later in life if not managed properly at the time of the initial incident.
- A concussion occurs when there is a direct or indirect insult to the brain. As a result, impairment of mental functions such as memory, balance/equilibrium and vision may occur. It is important to recognize that **many sport-related concussions do not result in a loss of consciousness**. As a result, all suspected head injuries must be taken seriously.
- Coaches and teammates are critical in identifying those student-athletes who may have a concussion because a concussed athlete may not be aware of their condition or may be trying to hide their injury to remain in practice or competition.
- All Eagle Sport club officers and coaches will be required to attend the concussion education session presented by the Department of Campus Recreation and Mary Washington Healthcare during the first week of fall classes.
- All Eagle Sport Club student-athletes and coaches must read the NCAA Concussion Fact Sheet provided by the Department of Campus Recreation and sign the statement acknowledgement regarding sport club concussion management protocol.
- Every first-year or transfer student-athlete in the sports of boxing, cheerleading, field hockey, lacrosse (men and women), polo, rugby (men and women), soccer, and women's volleyball will be required to take a supervised pre-season baseline assessment for concussion using the ImPACT (Immediate Post-Concussion Assessment and Cognitive Testing) system. Student-athletes who have already had ImPACT testing must provide a copy of the test results to the Director of Campus Recreation.

- ImPACT is a software tool utilized to evaluate recovery after concussion. ImPACT evaluates multiple aspects of neurocognitive function; including memory, attention, and brain processing speed, reaction time, and post concussion symptoms. This data will help physicians evaluate recovery following concussions and assist in making recommendations for return to play.
- ImPACT testing will be conducting by the professional staff of the Department of Campus Recreation. Each Eagle Sport Club president will be contacted with the date and time(s) of their club's testing sessions. The test administrator will confirm that all tests are certified as valid.
- The student-athlete will maintain a copy of the baseline test and the data will be stored in the ImPACT data base. This information will be available to Mary Washington Healthcare staff in the event the student-athlete presents to the hospital with a concussion or other head trauma.

CONCUSSION MANAGEMENT AND ASSESSMENT

The summary items for this component are:

1. Student-athlete is immediately removed from play
2. Club first responder or coach will provide sideline assessment following SCAT guidelines
3. A student-athlete that loses consciousness or whose condition worsens will immediately be transported to UMW hospital by ambulance
4. A student-athlete who is conscious but has exhibited signs and/or symptoms of a concussion is to be referred to UMW hospital for evaluation
5. Student-athlete will notify physician upon arrival if ImPACT data is available

Detailed points for concussion management and assessment include the following:

- A student-athlete suspected of sustaining a concussion will immediately be removed from play. The sport club's first responder or coach will provide sideline assessment following the SCAT guidelines.
- A student-athlete suspected of having a concussion is not permitted to return-to-play on the day of the injury.
- The following situations indicate a medical emergency and require immediate activation of the Emergency Medical System (call UMW Public Safety at 540-654-4444):
 - Any student-athlete with a witnessed loss of consciousness of any duration
 - Any student-athlete who has symptoms of a concussion, and who is not stable (i.e. condition is worsening
 - An student-athlete who exhibits any of the following symptoms:
 - *Deterioration of neurological function: headaches that worsen, seizures, focal neurologic signs, looks very drowsy or can't be awakened, repeated vomiting,*

slurred speech, can't recognize people or places, increasing confusion or irritability, weakness or numbness in arms or legs, neck pain, unusual behavior change, significant irritability, any loss of consciousness greater than 30 seconds or longer

- *Decreasing level of consciousness*
 - *Decrease or irregular respirations*
 - *Any signs or symptoms of associated injuries, spine or skull fracture, or bleeding*
 - *Mental status changes: lethargy, difficulty maintaining arousal, confusion or agitation*
 - *Seizure activity*
- A student-athlete who is conscious but has exhibited signs and/or symptoms of a concussion is to be referred to Mary Washington Hospital immediately for evaluation.
 - The injured student-athlete will notify the physician upon arrival at the hospital that ImPACT testing data is available.
 - All sport club presidents are responsible for making certain that visiting sport clubs receive a copy of our concussion policy prior to travel and for providing the same concussion care for visiting student-athletes.
 - Any sport club student-athlete who sustains a suspected concussion at practice or competition away from UMW will be treated according to the emergency protocol on-site.

POST CONCUSSION TREATMENT PLAN

The summary items for this component are:

1. Return to play is a medical decision that must be made by a physician
2. Student-athlete MAY NOT return to practice or competition without the written consent of a concussion specialist or other physician
3. The Sport Club President must ensure that the student-athlete does not return to play until the date specified by the physician
4. A follow-up ImPACT test will be given post-concussion

Detailed points for the post concussion treatment plan include the following:

- Return to play is a medical decision that must be made by a concussion specialist.
- **A student-athlete MAY NOT return to practice or competition without the written consent of a concussion specialist or other physician.**

- Once the physician has cleared the student-athlete to return to play, it is strongly recommended that the athlete is progressed back to full activity following the step-wise process detailed below. Progression is individualized, and will be determined on a case by case basis. Factors that may affect the rate of progression include: previous history of concussion, duration and type of symptoms, age of the athlete, and sport in which the athlete participates. An athlete with a prior history of concussion, one who has had an extended duration of symptoms, or one who is participating in a collision or contact sport may be progressed more slowly.
 - Complete cognitive rest. Activities requiring concentration and attention may worsen symptoms and delay recovery.
 - Light exercise. This step should not begin until the athlete is no longer having concussion symptoms and is cleared by a physician for further activity. At this point the athlete may begin walking or riding an exercise bike. No weight-lifting.
 - Running without gear or equipment.
 - Non-contact training drills in full equipment. Weight-training can begin.
 - Full contact practice or training.
 - Return to competition.
- The Sport Club President must ensure that the student-athlete does not return to play until the date specified by the physician.
- A follow-up ImPACT test will be given post-concussion 24 to 48 hours after the injury.
- If post-concussion symptoms occur at any stage, the student-athlete should stop the activity and the treating physician should be contacted for additional evaluation.

RETURN-TO-PLAY OPTIONS FOR THE PHYSICIAN

1. Cleared to return to play without restriction
2. Follow-up ImPACT test required
3. Cleared to return to play with restrictions
4. Cleared to return to play without restriction on a specific date
5. Return appointment with physician required

Due to FERPA and HIPAA guidelines, the department of Campus Recreation professional staff does not have consent to view a medical diagnosis without the expressed written consent of the student-athlete. The physician is required to limit return to play notes with this in understanding.

FERPA – <http://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html>

HIPPA – <http://www.hhs.gov/ocr/privacy/>