NMU Department of Athletics
Concussion Management Protocol
Concussion Management Protocol

The Northern Michigan University (hereinafter, “NMU”) Department of Athletics is dedicated to the safety of its student-athletes and has established the following Concussion Management Protocol.

The purpose of this document is to establish the proper standard of care to serve as a guide in protecting our student-athletes’ health and well-being, specifically in the care and treatment of concussion and concussion related symptoms.

This comprehensive Protocol follows the guidelines and recommendations set forth by the National Athletic Training Association, the American Medical Association, the National Collegiate Athletic Association and the practicing physician and allied health professionals of NMU.

This Protocol consists of seven parts, including: 1) Pre-Season Education; 2) Pre-Participation Assessment; 3) Recognition and Diagnosis of Concussion; 4) Post-Concussion Management; 5) Return-to-Play; 6) Return-to-Learn; and 7) Reducing Exposure to Head Trauma.

Pre-Season Education

Concussion Management Team

The NMU Concussion Management Team will consist of the director of athletics (or designee), dean of students (or designee), head athletic trainer, team physician, a coaching staff member, a student-athlete advisory committee member, and a counseling services staff member. The Concussion Management Team will review the Concussion Management Protocol before the start of each academic year. The Concussion Management Team will have the authority to suggest Concussion Management Protocol changes to the NMU medical director.

Student-Athletes

NMU will conduct a preseason meeting no later than 24 hours prior to the start of countable athletically related activity each fall semester. The preseason meeting will provide the NCAA concussion fact sheet (Appendix A) and other applicable materials. Student-athletes will provide a signed acknowledgement and commitment statement (Appendix B) confirming that they have read and understand the concussion materials and Concussion Management Protocol. Student-athletes will also be provided an example of the post-concussion care form that will be reviewed with an athletic trainer if a concussion is sustained (Appendix C).

Coaches

NMU will review the Concussion Management Protocol and expectations once a year with all full-time coaching staff before the start of countable athletically related activity. In addition to the Concussion Management Protocol, the concussion fact sheet (Appendix D) will be reviewed by all full-time coaching staff before the start of countable athletically related activity. If a new coach is hired mid-year, the new coach will be required to complete a new coach’s orientation session conducted by the head athletic trainer (or designee) before the new coach is allowed to conduct countable athletic related activity. Each academic year, all full-time coaching staff will sign the acknowledgement and commitment statement (Appendix E) confirming that they have read and understand the concussion materials and Concussion Management Protocol. Coaches will be provided an example of the post-concussion care form that will be reviewed with an athletic trainer if a student-athlete on their team sustains a concussion (Appendix C).
Pre-Participation Assessment

Medical Exam

Prior to participation, each student-athlete is required to undergo a medical examination each year as required by NCAA Bylaw 17. Playing and Practice Seasons. The pre-participation exam must be conducted and signed by a physician, physician’s assistant or nurse practitioner and will include: a review of medical history including injuries, illnesses, concussion history, evaluation of current injuries or illnesses, and an opportunity to discuss any other health related issues. In addition, the BESS Test will be completed for student-athletes on the following teams:

- Football
- Men’s Basketball
- Men’s Ice Hockey
- Men’s Soccer
- Women’s Basketball
- Women’s Soccer
- Women’s Lacrosse

Cognitive Assessment

Sports medicine staff will administer an ImPACT Test to each varsity student-athlete before countable athletically related activity.

Recognition and Diagnosis of Concussion

Any student-athlete who exhibits signs or symptoms of a concussion must be removed immediately from practice or competition and evaluated by sports medicine staff. The minimum evaluation conducted will include a clinical exam, symptom inventory, and a cognitive and balance assessment. If the student-athlete exhibits concussion related symptoms the student-athlete must be evaluated by a physician as soon as possible. If the student-athlete exhibits progressive decline in neurological or clinical status, the student-athlete will be transported to the appropriate medical facilities available for further evaluation.

Role of NMU Sports Medicine Staff

A sports medicine staff member will be available for all required student-athlete home practices and competitions in the following sports:

- Football
- Men’s Basketball
- Men’s Ice Hockey
- Men’s Soccer
- Women’s Basketball
- Women’s Soccer
- Women’s Lacrosse

If a sports medicine staff member determines that a student-athlete has concussion related symptoms, the student-athlete will not be permitted to participate in athletic activities of any kind that day. The student-athlete will be monitored for worsening concussion signs and symptoms. Sports medicine staff will have the unchallengeable authority to remove student-athletes from athletic participation and may only be

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reinstated by the NMU team physician. No student-athlete will be allowed to return-to-play until the Return-to-Play Protocol requirements are satisfied.

**Role of the Student-Athlete**

If a student-athlete is conscious and experiencing concussion related symptoms, they should immediately remove themselves from practice or competition and consult with sports medicine staff. The student-athlete must be honest and forthright with concussion signs and symptoms at all times.

Student-athletes that sustain a concussion or exhibit concussion related signs and symptoms due to outside participation (e.g., intramurals or car accident) must report the incident to sports medicine staff and will be evaluated by the NMU team physician. Return-to-Play Protocol will be followed.

**Role of the Coaching Staff**

The coaching staff will adhere to the Concussion Management Protocol and will remove student-athletes from participation with practice or competition if concussion related signs and symptoms are recognized or suspected. If a member of the NMU sports medicine staff is not present, the coaching staff will facilitate communication with the sports medicine staff or the activation of emergency medical services.

The coaching staff will not question the authority of the NMU sports medicine staff if a student-athlete is removed from practice or competition due to concussion related signs and symptoms.

**Post-Concussion Management**

Any student-athlete who exhibits concussion related signs and symptoms will be removed from practice and competition and will be evaluated by a sports medicine staff member. Any student-athlete found to have a concussion will not be eligible to return-to-play until cleared through the Return-to-Play Protocol.

The Emergency Action Plan will be activated for any student-athlete found to have:

- Spinal Injury;
- Prolonged loss of consciousness;
- Focal neurological deficit suggesting intracranial trauma;
- Repetitive emesis;
- Progressively diminishing or worsening mental status or other neurological signs or symptoms; or
- Other medical emergencies emerging on an individual case basis.

**Early Management**

Once a student-athlete is determined to be clinically stable, they will be discharged with oral and written instructions for home care and follow-up. These instructions will be provided to both the student-athlete and a responsible adult (e.g., roommate or parent). These are the same instructions presented at the initial concussion meeting that occurs before the start of countable athletically related activity. The student-athlete will be required to report to sports medicine staff the following day.

**Follow-Up Assessment**

All student-athletes that sustain a concussion will follow-up with sports medicine staff on a daily basis for concussion monitoring and reassessment. Follow-up physician evaluation will occur on an individualized basis. In the event that a student-athlete’s signs or symptoms worsen, further clinical testing may occur. Return-to-Play Protocol will not start until approved by the NMU team physician.

Updated 1/11/2016
Return-to-Play

Final decision regarding clearance to return-to-play from concussion or concussion related signs and symptoms is the responsibility of the NMU team physician. In the event that a student-athlete obtains written approval from an outside physician, the NMU team physician must be notified and the student-athlete will only be approved for the Return-to-Play Protocol with the recommendation of the NMU team physician. No other health care provider outside of NMU sports medicine will have authority to approve final clearance to enter the Return-to-Play Protocol. Once approved, the student-athlete will enter the five step graduated exertional Return-to-Play Protocol.

For visiting teams with an athletic trainer or team physician present, the Return-to-Play Protocol of that program will be referred to for the visiting team student-athletes. In the event that a visiting team does not send an athletic trainer or team physician, NMU sports medicine staff will follow the NMU Concussion Management Protocol. NMU sports medicine staff will follow-up with the visiting team sports medicine staff to provide clinical findings.

The five-step gradual Return-to-Play Protocol may begin once the student-athlete is symptom free and cleared by the NMU team physician. This exertional Protocol allows for a gradual increase in intensity during the return-to-play process. The student-athlete will be monitored, at each step, for any concussion related signs and symptoms during and after each exertional activity. In the event that concussion signs and symptoms return, the student-athlete will return to step 1. Student-athletes may only advance to the next exertional step if they are found to be asymptomatic. The following steps will NOT be allowed to occur within a 24 hour period.

<table>
<thead>
<tr>
<th>Exertional Stages</th>
<th>Exertional Exercise</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recovery</td>
<td>REST</td>
<td>To allow for both physical and cognitive functions to return to normal</td>
</tr>
<tr>
<td>Exertional Step 1</td>
<td>Aerobic Exercise (e.g., 20 minute stationary bike ride)</td>
<td>Increase Heart Rate not to exceed 60% of max heart rate (220-Age)</td>
</tr>
<tr>
<td>Exertional Step 2</td>
<td>Sport specific activity with no head impact (e.g., plyometrics, sport specific drills for 15 minutes)</td>
<td>To add movement to exertion</td>
</tr>
<tr>
<td>Exertional Step 3</td>
<td>Individual based, controlled return to non-contact practice.</td>
<td>Exercise, coordination and &amp; cognitive load, monitor for signs and symptoms</td>
</tr>
<tr>
<td>Exertional Step 4</td>
<td>Full sport participation</td>
<td>Coaches assessment of functional skill</td>
</tr>
<tr>
<td>Exertional Step 5 (Return-to-Play)</td>
<td>Normal Game Play</td>
<td></td>
</tr>
</tbody>
</table>

Return-to-Learn

Return-to-Learn Protocol will be managed in a stepwise program that fits the needs of the individual. Cognitive stressors such as academic work, video games, reading, texting and watching television should be avoided for rest. The need for academic accommodations will be recommended by the NMU team physician. Sports medicine staff will notify the NMU coordinator of disability services, dean of students (or designee), faculty athletics representative and the appropriate coach. The guidelines below will be followed on an individual basis:
• If the student-athlete cannot tolerate light cognitive activity, he or she should remain at home or in the residence hall.
• Once the student-athlete can tolerate cognitive activity without the return of symptoms he or she may return to the classroom, often in gradual increments.

A holistic multi-disciplinary team of NMU faculty and staff will aid in the adjustment of an individual’s educational plan. These individuals may include:

• Team Physician;
• Dean of Students (or designee);
• Faculty Athletics Representative;
• Director of Academic and Career Advising;
• Student-Athlete’s Academic Adviser; and/or
• Coordinator of Disabilities Services.

The multi-disciplinary team can establish an individual’s educational plan based on concussion signs and symptoms for up to two weeks. Student-athletes found to need further accommodations due to concussion related signs and symptoms greater than two weeks will be re-evaluated by the NMU team physician and may require the engagement of other campus resources.

**Reducing Exposure to Head Trauma**

NMU is dedicated to the safety and well-being of all student-athletes and will adhere to safety procedures set forth by NMU sports medicine staff and inter-association consensus guidelines to help minimize the risk of head trauma. NMU emphasizes the importance of minimizing head trauma exposure by:

• Taking a “Safety First” approach to sport;
• Reducing gratuitous contact during practice;
• Adherence to inter-association consensus guidelines for medical care; and
• Educating athletics staff and student-athletes regarding safe practice and competition.

**Contact Information**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Phone Number</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
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<td><a href="mailto:fkarr@nmu.edu">fkarr@nmu.edu</a></td>
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</tr>
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<tr>
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</tr>
<tr>
<td>Chris Greer</td>
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<td>(906) 227-1700</td>
<td><a href="mailto:cgreer@nmu.edu">cgreer@nmu.edu</a></td>
</tr>
</tbody>
</table>

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Appendix A

CONCUSSION
A FACT SHEET FOR STUDENT-ATHLETES

WHAT IS A CONCUSSION?
A concussion is a brain injury that:
- Is caused by a blow to the head or body.
- From contact with another player, hitting a hard surface such as the ground, ice or floor, or being hit by a piece of equipment such as a bat, lacrosse stick or field hockey ball.
- Can change the way your brain normally works.
- Can range from mild to severe.
- Presents itself differently for each athlete.
- Can occur during practice or competition in ANY sport.
- Can happen even if you do not lose consciousness.

HOW CAN I PREVENT A CONCUSSION?
Basic steps you can take to protect yourself from concussions:
- Do not make contact with your head or helmet. You can still get a concussion if you are wearing a helmet.
- Avoid striking an opponent in the head. Undercutting, flying elbows, stepping on a head, checking an unprotected opponent, and sticks to the head all cause concussions.
- Follow your athletics department's rules for safety and the rules of the sport.
- Practice good sportsmanship at all times.
- Practice and perfect the skills of the sport.

WHAT ARE THE SYMPTOMS OF A CONCUSSION?
You can't see a concussion, but you might notice some of the symptoms right away. Other symptoms can show up hours or days after the injury.
Concussion symptoms include:
- Amnesia.
- Confusion.
- Headache.
- Loss of consciousness.
- Balance problems or dizziness.
- Double or fuzzy vision.
- Sensitivity to light or noise.
- Nausea (feeling that you might vomit).
- Feeling sluggish, foggy or groggy.
- Feeling unusually irritable.
- Concentration or memory problems (forgetting game plays, facts, meeting times).
- Slow reaction time.

Exercise or activities that involve a lot of concentration, such as studying, working on the computer, or playing video games may cause concussion symptoms (such as headache or tiredness) to appear or get worse.

WHAT SHOULD I DO IF I THINK I HAVE A CONCUSSION?
Don’t hide it. Tell your athletic trainer and coach. Never ignore a blow to the head. Also, tell your athletic trainer and coach if one of your teammates might have a concussion. Sports have injury timeouts and player substitutions so that you can get checked out.

Report it. Do not return to participation in a game, practice or other activity with symptoms. The sooner you get checked out, the sooner you may be able to return to play.

Get checked out. Your team physician, athletic trainer, or health care professional can tell you if you have had a concussion and when you are cleared to return to play.

A concussion can affect your ability to perform everyday activities, your reaction time, balance, sleep and classroom performance.

Take time to recover. If you have had a concussion, your brain needs time to heal. While your brain is still healing, you are much more likely to have a repeat concussion. In rare cases, repeat concussions can cause permanent brain damage, and even death. Severe brain injury can change your whole life.

IT'S BETTER TO MISS ONE GAME THAN THE WHOLE SEASON. WHEN IN DOUBT, GET CHECKED OUT.
For more information and resources, visit www.NCAA.org/health-safety and www.CDC.gov/Concussion.
Appendix B

Student-Athlete Acknowledgement of NMU Concussion Management Protocol

I, ________________________________________________, was present at my team certification meeting and I received a copy of *Concussion A Fact Sheet For Student-Athletes.*

_____ I hereby acknowledge that it is my responsibility to immediately self-report any signs or symptoms of a concussion to the NMU sports medicine staff.

_____ I will honestly report any and all possible symptoms of a concussion to the NMU sports medicine staff.

_____ I understand that failure to self-report any concussion or concussion related symptoms may put my health and well-being at risk.

I understand that I may choose not to sign this form. If I do not sign this form, I understand that I will not be able to participate in intercollegiate athletics at NMU and that I will, therefore, have to forfeit my athletic scholarship and/or grant-in-aid.

________________________________________             __________________
Signature of Student-Athlete     Date

________________________________________             __________________
Parent or Guardian Signature (if student is under 18) Date

________________________________________
Parent or Guardian Printed Name
Appendix C

Post-Concussion Care Form

Student-Athlete Name: _____________________________________ Date:________________________

You have been evaluated and/or diagnosed with a concussion by a member of the Northern Michigan University sports medicine staff. The following are signs and symptoms that may occur within hours or days of your injury:

<table>
<thead>
<tr>
<th>Physical</th>
<th>Thinking</th>
<th>Emotional</th>
<th>Sleep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headaches</td>
<td>Feeling Foggy</td>
<td>Irritability</td>
<td>Drowsiness</td>
</tr>
<tr>
<td>Nausea</td>
<td>Problems concentrating</td>
<td>Sadness</td>
<td>Sleeping more than usual</td>
</tr>
<tr>
<td>Fatigue</td>
<td>Problems remembering</td>
<td>Nervousness</td>
<td>Sleeping less than usual</td>
</tr>
<tr>
<td>Visual disturbances</td>
<td>Feeling slowed down</td>
<td>Feeling more emotional</td>
<td>Trouble falling asleep</td>
</tr>
<tr>
<td>Balance problems</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

We ask you to identify a designated caregiver or responsible adult (e.g., family member, roommate, friend, and teammate) that will have the availability to check on you periodically. Please give this sheet to your designated caregiver who is monitoring you so they are able to help recognize signs or symptoms that may develop.

Designated Caregiver: ________________________________ Phone Number: ____________________

It is OK to

| Use acetaminophen (Tylenol) | Take Ibuprofen (Advil, Aleve, Aspirin, Excedrin, etc.) |
| Eat a light meal | Drink alcohol |
| Rest | Drive a car or operate machinery |
| Use an ice pack for neck pain or discomfort | Engage in mental activity that make symptoms worse |
| Go to sleep (no need to wake up hourly) | Listen to loud music |

DO NOT

| | Engage in physical activity |
| | Stay alone tonight |

If any of the above signs or symptoms develop and/or worsen after the initial injury, please contact your sports medicine staff at the number below. In the event of an emergency, call 911.

Athletic Trainer: _______________________________________ Phone Number:___________________

Specific Recommendations:
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________

Recommendations provided by:___________________________________________________________
Signature:_________________________________________________________  Date:______________
Appendix D

CONCUSSION
A FACT SHEET FOR COACHES

THE FACTS
• A concussion is a brain injury.
• All concussions are serious.
• Concussions can occur without loss of consciousness or other obvious signs.
• Concussions can occur from blows to the body as well as to the head.
• Concussions can occur in any sport.
• Recognition and proper response to concussions when they first occur can help prevent further injury or even death.
• Athletes may not report their symptoms for fear of losing playing time.
• Athletes can still get a concussion even if they are wearing a helmet.
• Data from the NCAA Injury Surveillance System suggests that concussions represent 5 to 10 percent of all reported injuries, depending on the sport.

WHAT IS A CONCUSSION?
A concussion is a brain injury that may be caused by a blow to the head, face, neck, or elsewhere on the body with an "impulsive" force transmitted to the head. Concussions can also result from hitting a hard surface such as the ground, ice or floor, from players colliding with each other or being hit by a piece of equipment such as a bat, increase stick or field hockey ball.

RECOGNIZING A POSSIBLE CONCUSSION
To help recognize a concussion, watch for the following two events among your student-athletes during both games and practices:
1. A forceful blow to the head or body that results in rapid movement of the head;
2. Any change in the student-athlete’s behavior, thinking or physical functioning (see signs and symptoms).

SIGNS AND SYMPTOMS

Signs Observed by Coaching Staff
• Appears dazed or stunned.
• Is confused about assignment or position.
• Forgets plays.
• Is unsure of game, score or opponent.
• Moves clumsily.
• Answers questions slowly.
• Loses consciousness (even briefly).
• Shows behavior or personality changes.
• Can’t recall events before hit or fall.
• Can’t recall events after hit or fall.

Symptoms Reported by Student-Athlete
• Headache or "pressure" in head.
• Nausea or vomiting.
• Balance problems or dizziness.
• Double or blurry vision.
• Sensitivity to light.
• Sensitivity to noise.
• Feeling sluggish, hazy, foggy or groggy.
• Concentration or memory problems.
• Confusion.
• Does not "feel right."
Appendix E

Coach Acknowledgement of NMU Concussion Management Protocol

I, __________________________________________, was present at our staff concussion informational session and received a copy of the Northern Michigan University Intercollegiate Athletics Concussion Management Protocol.

________ I acknowledge that it is my responsibility to report all injuries and illnesses including concussions of a student-athlete to the sports medicine staff.

________ I will openly and honestly report any and all possible symptoms of a concussion observed in a student-athlete to the sports medicine staff.

________ If I suspect a student-athlete has a concussion, I am responsible for notifying the sports medicine staff.

________ I will not allow a student-athlete to return-to-play in a game or practice if they have received a blow to the head or body that results in concussion related symptoms.

________ I have read and understand the NCAA Concussion Fact Sheet for Coaches.

I acknowledge that I have received and reviewed the educational material regarding concussions and the sports medicine staff has given me an opportunity to ask questions regarding areas and issues not clear to me.

___________________________________________ ____________________
Signature of Coach Date