

Mount Michael Benedictine

Concussion Management Policy & Protocol

- I. Definition of Concussion
 - a. A concussion is a type of traumatic brain injury caused by a bump, blow, or jolt to the head. A concussion is any head trauma that causes an altered mental state that may or may not involve a loss of consciousness. Only 10% of concussions involve a loss of consciousness.
 - b. Concussions can also occur following a fall or a blow to the body that causes the head and brain to move back and forth quickly.
 - c. This sudden movement can cause the brain to bounce around in the skull, stretching and damaging the brain cells and creating chemical changes in the brain.
 - d. Health care professionals may describe a concussion as a “mild” brain injury because concussions are usually not life-threatening. Even so, their effects can be serious.
- II. Education
 - a. Parents and Student Athletes
 - i. Prior to the start of the athletic season, all student athletes and their parents will have access to educational information regarding concussions.
 - ii. The information will include:
 1. Signs and symptoms of a concussion
 2. Risks posed by sustaining a concussion
 3. Actions that should be taken in response to sustaining a concussion
 - b. Coaches
 - i. Online education classes for all head, assistant, and volunteer aids, needs to be completed prior to the beginning of the sports season the coach is involved in each school year. Each coach will be required to complete the online course only one time per year.
 - ii. The school shall ensure that coaches at all levels of athletic teams have training and information available for learning how to:
 1. Recognize the Signs & Symptoms of a concussion or brain injury
 2. Seek proper medical treatment for a concussion or brain injury
- III. Neurocognitive Test
 - a. ImPACT concussion testing is a computer based, neurocognitive exam designed specifically for the management of sports related concussions. It is more sensitive to brain function than the pencil and paper tests.
 - b. All student athletes who participate in football, basketball, wrestling, soccer, physical education class, and/or strength and conditioning class will take the ImPACT test and establish a baseline test prior to the start of their season/class. Once the student athlete has been tested the test will be valid for all sports/classes the student athlete participates in the entire academic school year. Each student athlete will be tested to establish a new baseline at two year intervals (freshmen & junior year).

- c. A new student athlete at the school will be baseline tested prior to the start of the sport/class that they will be joining if it falls into one of those designated for testing.
- d. After the designation of a concussion the student athlete will be tested when they complete the return to learn protocol. If their post injury testing is not at baseline levels, they will be tested again in 24-48 hours.

IV. Signs and Symptoms of a Concussion

- a. A list of signs and symptoms will be provided to all coaches and athletic administration prior to the start of the season/class. A list of signs and symptoms is included below:
 - i. Signs (observed by coach, teammate, etc.) include but not limited to:
 - 1. Appears to be dazed or stunned
 - 2. Confusion
 - 3. Moves clumsily
 - 4. Loss of consciousness
 - 5. Behavior/personality changes
 - 6. Forget events prior to injury (retrograde amnesia)
 - 7. Forget events after injury (anterograde amnesia)
 - ii. Symptoms (reported by athlete) include but not limited to:
 - 1. Headache
 - 2. Nausea
 - 3. Balance problems or dizziness
 - 4. Double or fuzzy vision
 - 5. Sensitivity to light
 - 6. Tinnitus (ringing in ears)
 - 7. Feeling "foggy"
 - 8. Concentration or memory issues
 - 9. Change in sleep pattern
 - 10. Feeling fatigued
- b. Any one or multiple of these signs and symptoms are indicative of possible concussion and therefore give cause for an athlete to be immediately removed from activity and directed to an appropriate licensed healthcare provider.
- c. Symptoms may be delayed several hours or days following injury, and therefore need to remain monitored.

V. Appropriate Licensed Health Care Provider (LHCP)

- a. The school, in accordance with LB260 – the Nebraska Concussion Awareness Act – shall consider an appropriate licensed healthcare provider as those appropriate to evaluate, assess, manage, and provide healthcare services to a concussed student athlete, and lawfully allowed to provide written clearance for return to participation to be a:
 - i. Medical Physician (MD), Doctor of Osteopathy (DO), or licensed practitioner under the supervision of an MD or DO i.e. Physician Assistant (PA-C) or Nurse Practitioner (APRN)
 - ii. Athletic Trainer (ATC)
 - iii. Neuropsychologist (PhD)

- VI. Guidelines and Procedures if Concussion is suspected
- a. Recognize Concussions
 - i. Coaches should understand the contemporary definition of a concussion
 - ii. Coaches are to be familiar with the signs and symptoms of a concussion
 - iii. Coaches should be familiar with conducting basic cognitive and balance sideline testing to recognize cognitive and balance abnormalities
 - iv. Coaches may refer to information provided to them for conducting basic cognitive and balance testing for recognizing cognitive and balance abnormalities
 - v. A coach may seek assistance from the host site athletic trainer, other healthcare providers, or medical staff onsite to conduct an appropriate sideline assessment if at an away contest
 - b. Removal of Student Athlete
 - i. If a coach reasonably suspects an athlete has sustained a concussion, or notes any signs or symptoms of a concussion, including cognitive or balance abnormalities, the athlete is to be immediately removed from activity.
 1. An athlete does not have to display all of the signs or symptoms to be assessed as a concussion
 - ii. Sideline or training room evaluation/assessment will be done by the appropriate health care professional (certified athletic trainer, a medical doctor, or neurologist)
 - iii. If an appropriate sideline evaluation/assessment is unable to be conducted for an athlete suspected of potential head injury, the athlete is to be removed from further activity until such assessment can be made.
 1. "When in doubt, sit them out"
 - iv. The student athlete will not return to participation for a period of 24 hours whether assessed as having suffered a concussion or not, unless a health care professional clears them to return to play.
 - c. Direct to an Appropriate Licensed Healthcare Provider
 - i. Any athlete having sustained a concussion, or reasonably suspected of having a concussion upon being removed from activity is to be directed to an appropriate licensed healthcare provider
 1. The time frame for determining when such care is sought may involve the athlete seeking such care:
 - a. Immediately by activating the EMS and transport by ambulance (unstable)
 - b. Reporting to an emergency department transported by a parent or responsible adult (stable)
 - c. By instructing athlete to follow up with the school's athletic trainer in a reasonable period of time upon allowing the athlete to go home with a responsible adult having been provided appropriate instructions (stable)

- d. Recommend to parent referral to their primary care physician if the school's athletic trainer is not available in a reasonable period of time.
 2. Please refer to Section V as to who the school considers an appropriate licensed healthcare provider for the purpose of assessing and managing an athlete's care for a suspected concussion
- d. Inform Parents
- i. The coach, the school's athletic trainer, or other designated school personnel will contact the parents to inform them of:
 1. The date and time of the injury
 2. Observed signs and symptoms
 3. Action taken, and, should the student athlete be a day student, make arrangements for the athlete to travel home safely
 - ii. If in the event that an athlete's parents cannot be reached, and the athlete is in a stable condition and does not require a trip to the ER or the EMS does not need to be activated:
 1. The coach or ATC will insure that the athlete will be with a responsible adult capable of monitoring the athlete before allowing the athlete to leave practice
 2. The coach, ATC, or school personnel should continue efforts to reach the parents
 3. If there is any question about the status of the athlete, or if the athlete is not able to be monitored appropriately, the athlete should be referred to an emergency department for evaluation. A coach or designated school personnel is to accompany the athlete and remain with the athlete until the parents or adult family member, or other responsible adult arrives.
 - iii. If the school ATC or medical staff is unavailable, or the athlete is injured at an away event, the coach is responsible for notifying the athlete's parents of the injury

- VII. Guidelines and Procedures after the Designation of Concussion
- a. Upon the identification of a concussion the student athlete will be placed in the concussion management protocol as set up by Mount Michael Benedictine School.
 - b. Student athletes who have been assessed as having a concussion will be encouraged to seek consultation with the family's choice of a primary care physician or a neurologist at their earliest convenience
 - c. ImPACT testing will be conducted when the athlete is asymptomatic and has completed the Return to Learn portion of the Mount Michael concussion management protocol
 - d. A post concussion information sheet will be given to the student athlete and/or parent, which provides information regarding concussions, suggestions for treatment and information regarding their specific injury
 - e. Athletes with a concussion will report to the ATC for continued monitoring as need specified by the ATC
 - f. The Mount Michael ATC will have the final authority to progress the athlete through the concussion management protocol and release to full activity as warranted by return to activity protocol after cleared by a physician
 - g. A concussion management return to play protocol will be filled for each student athlete who has suffered a concussion
 - h. Notice will be given to the Mount Michael Head of School and Guidance Counselor with information regarding the student athlete's injury so that they may inform the teachers of that student-athlete's injury and progress into the Return to Learn protocol.
 - i. Written permission form must be signed by parent/guardian and an approved health care professional and returned to the ATC before clearing the student athlete to begin the concussion management return to play protocol

VIII. Return to Learn Protocol/Progression

- a. Progression is individual. All concussions are different. Students may start at any of these steps, depending on symptoms, and may remain at a step longer if needed. If symptoms worsen, the ATC/CMT should reassess. If symptoms quickly improve, a student may also skip a step or two. Be flexible!

Steps	Progression	Description
1	HOME – Cognitive and Physical rest	<ul style="list-style-type: none"> - Stay at home - No driving - Limited mental exertion-computer, texting, video games, and homework
2	HOME – Light Mental Activity	<ul style="list-style-type: none"> - Stay at home - No driving - Up to 30 minutes mental exertion - No prolonged concentration
Progress to Step 3 when student athlete handles up to 30 minutes of sustained mental exertion without worsening of symptoms.		
3	SCHOOL – Part Time <ul style="list-style-type: none"> - Maximum Adjustments - Shortened day/schedule - Built in breaks 	<ul style="list-style-type: none"> - Provide quiet place for scheduled mental rest - Lunch in quite environment - No significant classroom or standardized testing - Modify rather than postpone academics - Provide extra time, help and adjustment of assignments
Progress to Step 4 when student athlete handles 30-40 minutes of sustained mental exertion without worsening of symptoms		
4	SCHOOL – Part Time <ul style="list-style-type: none"> - Maximum Adjustments - Shortened day/schedule 	<ul style="list-style-type: none"> - No standardized tests - Modified classroom testing - Moderate decrease of extra time, help and medication of assignments
Progress to Step 5 when student handles 60 minutes of mental exertion without worsening of symptoms		
5	SCHOOL – Part Time <ul style="list-style-type: none"> - Minimal Adjustments 	<ul style="list-style-type: none"> - No standardized testing/routine tests are ok - Continued decrease of extra time, help and adjustments of assignments - May require more support in academically challenging subjects
Progress to Step 6 when student athlete handles all class periods in succession without worsening of symptoms AND receives medical clearance for full return to academics and athletics		
6	SCHOOL – Full Time <ul style="list-style-type: none"> - Full Academics - No adjustments 	<ul style="list-style-type: none"> - Attends all classes - Full homework and testing
When symptoms continue beyond 3-4 weeks, prolonged in-school supports are required.		

IX. Return to Play Protocol/Progression

- a. Return to play is a medical decision. The ATC/CMT will be familiar with state concussion laws and understand which healthcare providers may clear a student. To begin Return to Play protocol/progression, the student must be free of all symptoms (see signs and symptoms of concussion), have no academic adjustments in place, and be cleared by an approved healthcare provider. The student may spend 1-2 days at each step before advancing to the next. If post-concussion symptoms occur at any step, stop activity and have the ATC/CMT reassess.

Rehabilitation Stage	Functional exercise at each stage of rehabilitation	Objective of each stage
1. No activity	Symptom limited physical and cognitive rest	Recovery
2. Light aerobic exercise	Walking, swimming or stationary cycling keeping intensity <70% maximum permitted heart rate. No resistance training	Increase HR
3. Sport-specific exercise	Running drills in soccer, etc. No head impact activities	Add movement
4. Non-contact training drills	Progression to more complex training drills, passing drills in football and basketball, etc. May start progressive resistance training.	Exercise, coordination and cognitive load
5. Full contact practice	Following medical clearance Participate in normal training activities	Restore confidence and assess functional skills by coaching staff
6. Return to play	Normal game play	