**MERCY HIGH SCHOOL**

**CONCUSSION MANAGEMENT PROTOCOL**

The goal of this protocol is to safely return the athlete to academics and play following a concussion through the implementation of a comprehensive concussion management program in accordance with Nebraska Legislative Bill 782(LB 782).

**NEBRASKA CONCUSSION AWARENESS ACT (LB 782)**

The State of Nebraska Concussion Awareness Act (LB 782) is an extension of LB 260. It states:

* All schools need to make training available to coaches on how to recognize a concussion or brain injury and how to seek proper treatment.
* Concussion information needs to be supplied on an annual basis to athletes and parent/guardian prior to practices and competitions. This information should include, but is not limited to:
  + Signs and symptoms of a concussion.
  + Risks posed by sustaining a concussion.
  + Actions a student should take if they receive a concussion.
* A Return to Learn (RTL) Protocol should be implemented for athletes who have sustained a concussion. This should include, but is not limited to:
  + Any formal or informal accommodations in school.
  + Modifications of curriculum. (i.e. extensions on homework, alternate testing dates)
  + Monitoring by medical and academic staff until athlete is fully recovered.
* Athlete needs to be removed from activity immediately if she is suspected of having a concussion and may not return to activity that day.
* If an athlete is suspected of having a concussion, the parent/guardian needs to be contacted with the date and approximate time of the injury.
* Athlete will not be allowed to return to any school supervised team athletic activities until she has:
  + Completed the Return to Learn (RTL) Protocol.
  + Completed the Return to Play (RTP) Protocol.
  + Been evaluated by a licensed health care professional. (\*\*A **licensed healthcare professional** is defined as a physician, an athletic trainer, a neuropsychologist, or some other qualified individual who is registered, licensed, certified or otherwise statutorily recognized by the State of Nebraska to provide medical treatment and is experienced in the diagnosis and management of traumatic brain injuries among a pediatric population.)
  + Received written clearance by a licensed health care professional.
  + Submitted written clearance to participate in athletics signed by the athlete and parent/guardian.

**DEFINITION OF CONCUSSION/MILD TRAUMATIC BRAIN INJURY (MTBI)**

A concussion/MTBI is a type of brain injury that can range from mild to severe and can disrupt the way that a brain normally works. Concussions can occur in any organized or unorganized sport or recreational activity and can result from a fall or from players colliding with each other, the ground or obstacles. Concussions occur with or without loss of consciousness, but the vast majority occurs without loss of consciousness.

Although most concussions are short lived, experience has shown that if a second injury occurs during the recovery phase of the initial injury, an uncommon phenomenon known as "second-impact syndrome" can occur. Second-impact syndrome is often fatal. If an individual survives she/he may suffer life-long neurologic deficits.

**SIGNS AND SYMPTOMS OF A CONCUSSION/MTBI**

Below are listed the signs and symptoms of a concussion. This is not an exhaustive list of all signs and symptoms. If these are observed or reported, take the following actions listed in this protocol.

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| **SIGNS OBSERVED BY ATHLETIC TRAINER/COACH/PARENT/OTHER** | **SYMPTOMS FELT/EXPERIENCED AND REPORTED BY STUDENT ATHLETE** |
| Appears disoriented: dazed or stunned | Headache or “pressure” in head |
| Nystagmus: Uncontrolled eye movement | Nausea or vomiting |
| Generalized confusion: forgets instruction, slowed responses, vacant/glassy stare | Balance problems or dizziness |
| Troubles concentrating: easily distracted, repeatedly asking questions | Vision Disturbances: Double or blurry vision |
| Uncoordinated movements: clumsy movements, slurred speech, balance problems, | Photosensitivity: Sensitivity to light |
| Sleep disturbances | Tinnitus: Ringing in Ears. Hyperacusis: Sensitivity to noise |
| Loses consciousness (even briefly) | Feeling sluggish, hazy, foggy or groggy |
| Shows behavior, mood, or personality changes such as; agitation, irritability, depression, emotional instability | Concentration or memory problems: fatigued, drowsiness, difficulty concentrating or remembering |
| Anterograde amnesia: Unable to recall events before injury | Confusion |
| Retrograde amnesia: Unable to recall events after injury | Just not “feeling right” or “feeling down” |
| Seizure activity | Increased emotions: nervousness, anxiety, sadness |
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**MERCY HIGH SCHOOL REQUIREMENTS**

Prior to athlete supervision, coaches are required to take the National Federation of State High School Association's "Concussion in Sports - What you need to know" ([www.nfhslearn.com](http://www.nfhslearn.com)). Coaches will submit the completion sheet to the athletic director. Coaches will be required to retake the course every year.

At each pre-season parent/athlete meeting, all attendees will receive a concussion information sheet. Information includes definition, signs, symptoms and suggested parent actions. This document will also be available on the school website.

**PRESEASON BASELINE ASSESSMENT**

Mercy High School freshmen, juniors, transfer students, new athletes, and any athlete that received a concussion the previous year will take a neurological baseline assessment at the beginning of their first athletic season for the academic year. They will then be tested every two years after that as long as they do not receive a concussion.

**ACTION PLAN OF A SUSPECTED CONCUSSION/MTBI**

If the Athletic Trainer (AT) is NOT present:

1. Remove the athlete from the activity immediately
   * If the following signs/symptoms are seen, 911 is to be called and the athlete transported to the nearest emergency department:
     + Loss of consciousness
     + Deterioration of neurologic function: Difficulty in talking, swallowing and facial weakness
     + Decreasing level of consciousness
     + Decrease or irregularity in respiration and/or pulse
     + 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
     + Any other signs/symptoms that the coach/parent/etc. feels require immediate medical attention
   * The athlete is not permitted to return to activity that requires physical exertion until evaluated by a **licensed healthcare provider** who is experienced in the diagnosis and management of traumatic brain injuries.
   * The athlete will be kept under constant supervision by a coach, looking for signs of any change in mental status.
   * Once removed from the activity the parent or guardian, ATC, and Athletic Director will be notified of the date, time, extent of injury, and any actions taken.
   * Any athlete suspected of having a concussion/MTBI should refrain from operating a motor vehicle on the day of the suspected concussion/MTBI.

If the Athletic Trainer (AT) is present:

1. Remove athlete from the practice or game immediately
   * If the following signs are seen, 911 is to be called and the athlete transported to the nearest emergency department:
     + Loss of consciousness
     + Deterioration of neurologic function
     + Decreasing level of consciousness
     + Decrease or irregularity in respiration and/or pulse
     + Deterioration of PEARL (Pupils Equal And Reactive to Light)
     + 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
     + Any other signs/symptoms that the AT feels require immediate medical attention
   * The athlete is removed from play and is not permitted to return to the practice or game on the same day.
   * The athlete will be kept under constant supervision by the AT, looking for any change in signs/symptoms.
   * Once removed from the game or practice, the parent or guardian and the Athletic Director will be notified of the date, time, extent of injury and any actions taken.
   * Any athlete suspected of having a concussion/MTBI should refrain from operating a motor vehicle on the day of the suspected concussion/MTBI.

**POST-CONCUSSION PROCEDURES**

1. When an athlete receives a concussion Mercy High School’s athletic trainer will notify all designated people and document the incident.
2. If ATC is not present and there is a suspected concussion/MTBI, coaches need to notify ATC and AD and refer athlete to see ATC as soon as able.
   * If an athlete believes they do not have a concussion/MTBI after a suspected head injury and see a physician within the first 24 hours of injury and provide documentation of no concussion, they will not have to complete Mercy’s RTP protocol.
   * Parents will sign a waiver releasing liability from all Mercy High School personnel involved.
3. The athlete must complete the RTL Protocol before she can advance to RTP protocol.
   * Progression is individual and steps may be skipped or take longer depending on the student’s symptoms.
4. An athlete who sustains a concussion should take the first post-injury neurological test when asymptomatic.
5. When the athlete passes the RTL Protocol, is asymptomatic (without the use of medication), and performs within the normal limits on the neurological test, she can begin the RTP Protocol under direct supervision of a Mercy High School staff member.
   * Asymptomatic is defined as being free of symptoms for at least 24 hours without any medications used to alleviate concussion symptoms.
   * If signs or symptoms appear during the functional progression, the activity should be stopped immediately and the athlete monitored until all signs and symptoms resolve. No further activity should be performed that day. The progression will begin again at least 24 hours after symptoms have resolved and will begin at the previous phase where athlete did not experience symptoms.
   * Each phase should be at the minimum 1 day apart.
6. The athlete will not be cleared for participation until she has completed the RTL Protocol, completed the RTP Protocol, and has written clearance from Mercy High School’s athletic trainer. Any additional notes received from another healthcare professional will be considered supplemental documentation in Mercy High School’s athletic trainer’s final decision.
7. Upon being cleared for participation by Mercy High School’s athletic trainer the athlete and parent/guardian will acknowledge the clearance by signing a clearance to participate form.

**RETURN TO LEARN PROTOCOL (This could take 0 days up to months)**

**Phase 1:** Home: Cognitive and physical rest.

* No driving, limited mental exertion-computers, texting, video games, homework.

**Phase 2:** Home: Light mental activity.

* Up to 30 minutes of mental exertion, no prolonged concentration

**Phase 3:** School: Part-time, maximal adjustments, shortened day/scheduled breaks.

* Provide quiet place for scheduled mental rest.
* Lunch in quiet environment.
* No standardized testing.
* Modify, rather than postpone academics.
* Provide extra time, help, and modified assignments.

**Phase 4:** School: Part-time, moderate adjustments, shortened day/schedule

* No standardized testing.
* Modified classroom testing.
* Moderate decrease of extra time, help, and modification of assignments.

**Phase 5:** School: Full-time, Minimal adjustments

* No standardized testing, routine testing OK.
* Continued decrease time, help, modification of assignments.
* May require more support in academically challenging subjects.

**Phase 6:** School: Full-time, Full academics, no adjustments.

**RETURN TO PLAY PROTOCOL (5-6 day protocol depending on sport)**

**Phase 1:** Light activity: walking, exercise bike, light jog…no resistance training

**Phase 2:** Moderate activity: anaerobic exercise, continuous jogging, sport specific exercise

**Phase 3:** Heavy activity: sprinting, running 20 to 30 minutes

**Phase 4:** Non-contact sport specific drills

**Phase 5:** Full contact participation: full contact practice

**Phase 6:** Full participation in competition

**SOURCES**

Oregon Concussion and Management Program (OCAMP) and .Slocum Sports Concussion Program.

NebraskaLegislature.gov-http://nebraskalegislature.gov/FloorDocs/102/PDF/Intro/LB260.pdf

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