

Ferndale Area Junior/Senior High School



Concussion Management Protocol



A central illustration of a human brain with a yellow bandage on the forehead.

Headache
Amnesia
Fatigue
Vomiting
Mood changes
Sensitivity to light
Decreased reaction time
Knocked out
Lack of concentration
Sensitivity to noise
Inappropriate emotions

Seeing stars
Slurred speech
Lack of orientation
Blurred vision
Difficulty sleeping
Nausea
Lack of energy
Loss of consciousness
Dizziness
Irritability
Reduced coordination
Getting your "bell rung"
Easily distracted

Confusion

Concussion

CONCUSSION-U 2014

This Concussion Management Protocol developed in accordance with Ferndale Area School District Policy 123.1

The Ferndale Area School District seeks to provide a safe return to activity for all students after an injury, particularly head injuries. In order to effectively and consistently manage these injuries, the Ferndale Area School District will abide by the following protocols that have been developed to ensure head injuries are identified, treated, and referred appropriately. As well as to ensure students receive proper follow-up medical care during the school day, including academic assistance, and are fully recovered prior to returning to activity.

The primary documents consulted in developing this policy include Pennsylvania Senate Bill 200, ImPACT Applications Inc., and Center for Disease Control and Prevention. Along with these documents, Ferndale Area School District has followed the recommendations of our concussion certified school physicians.

Ferndale Area Concussion management team (CMT) will review the concussion protocol yearly. Members of the CMT include Administrators, School Physician, Athletic Director, School Nurse and Certified Athletic Trainer. Any changes or modifications will be reviewed and given to the athletic department staff and appropriate school personnel in writing.

All athletic coaches/staff will attend a yearly in-service meeting in which procedures for managing sport-related concussions are discussed. In addition, all coaches/athletic staff shall annually complete a certified concussion management course.

A concussion is defined as a complex pathophysiological process affecting the brain, induced by biomechanical forces. Several common features that incorporate clinical, pathologic, and biomechanical injury constructs that may be utilized in defining nature of a concussive head injury:

- 1) Concussion may be caused either by a direct blow to the head, face, neck, or elsewhere on the body with an “impulsive” force transmitted to the head.
- 2) Concussion typically results in the rapid onset of short-lived impairment of neurological function that resolves spontaneously. However, in some cases, signs and symptoms may evolve over a number of minutes to hours.
- 3) Concussion may result in neuropathological changes, but the acute clinical symptoms largely reflect a functional disturbance rather than a structural injury and, as such, no abnormality is seen on standard structural neuroimaging studies.
- 4) Concussion results in a graded set of clinical symptoms that may or may not involve loss of consciousness. Resolution of the clinical and cognitive symptoms typically follows a sequential course. However, it is important to note that in some cases symptoms may be prolonged.

Not every head injury results in a concussion. However, all head injuries should be reported to the athletic trainer, coach or medical professional immediately. Any student-athlete exhibiting signs and symptoms of a head injury/concussion will be removed from play and referred for further evaluation.

Signs that may be observed by the medical and coaching staff are:

- Appears dazed/stunned
- Confusion
- Memory problems
- Clumsy movements
- Slow response time to questions
- Behavior/personality changes
- Loss of consciousness (any duration)

Symptoms that may be reported by the student-athlete are:

- Headache
- Pressure in the head
- Difficulty with concentration
- Nausea / Vomiting
- Confusion
- Balance problems/dizziness

- Vision disturbances (fuzzy/double vision)
- Sensitivity to light and/or sound
- Feeling sluggish or slowed down
- Feeling foggy or groggy
- Does not “feel right”

Along with using the above signs and symptoms, the athletic department may utilize the following additional measures to evaluate suspected concussions during events at Ferndale Area Jr./Sr. High School athletic events.

- a. Athletic Trainer may utilize sideline cognitive testing such as SCAT, SAC, ImPACT, or others to help determine the status of the injury.
- b. Coaches should utilize the on-field cognitive testing procedures.

Signs and symptoms are not always present immediately. It is important to continue to monitor the student-athlete after they have sustained a head injury to see if there are any changes in their mental and physical status.

Signs of deteriorating neurological function

- Not all suspected head injuries/concussions need immediate referral, but if any of the following symptoms are present, the student-athlete should be taken to an emergency department for immediate attention.
 - Severely worsening headaches
 - Seizures
 - Drowsy appearance/difficulty waking them up
 - Repeated vomiting
 - Slurred speech
 - Inability to recognize people/places
 - Increasing confusion/irritability
 - Weakness/numbness in extremities
 - Neck pain
 - Facial swelling/bruising
 - Fluid from the ears or nose
 - Unusual behavior changes
 - Loss of consciousness

After evaluating the student-athlete, if the Athletic Trainer or medical professional suspects a head injury/concussion, the student-athlete will be referred for further evaluation. Once a student-athlete has been referred, they **WILL NOT** be permitted to return to play until they have written clearance from a physician.

Emergency room clearances **WILL NOT** be accepted for the student-athlete to return to play.

In the event that a head injury occurs the suggested guidelines for management are as follows:

1. Any student-athlete with a witnessed loss of consciousness (LOC), of any duration, should be transported immediately to the nearest emergency department via emergency vehicle.
2. Any student-athlete who has symptoms of a concussion, but is unstable (i.e., condition changes or deteriorates), should be transported immediately to the nearest emergency department via emergency vehicle.
3. Any student-athlete, who is symptomatic but stable, may be transported by their parent/guardian.
 - a. Parents will always have the option of emergency transportation, even if the medical staff does not feel it is necessary.
 - b. When an emergency vehicle is recommended but refused by the injured student-athlete's parent, the staff should have the parent sign the **Transportation Refusal form**.

“When in doubt sit them out!”

Guidelines and procedures for staff:

❖ Coaches

- All coaches should become familiar with the signs and symptoms of a concussion
- If a coach suspects the student-athlete may have sustained a concussion, they **MUST** remove the student-athlete, until the Athletic Trainer can evaluate them.
 - Any student-athlete, who exhibits signs or symptoms of a concussion shall be removed immediately, assessed, and shall not return to activity that day.
- Coaches should report all possible head injuries to the Athletic Trainer, as soon as possible, for medical assessment and management, and for coordination of home instruction, and follow-up information.

- If at an away competition Coaches should seek assistance from the host Athletic Trainer.
- Coaches must generate an injury report immediately following the practice or game and notify Athletic Trainer and Athletic Director.
- Coaches should contact parents to inform them of the injury and make arrangements for the student-athlete to be picked up if necessary.
 - Ensure student-athlete is with an emergency contact that is capable of monitoring student-athlete if parents are unavailable.
 - Continue to try to reach the parents.
 - If no one can monitor student-athlete they may need to be referred to the emergency department.
- Don't allow student-athletes to drive home with a suspected concussion.
- Remind student-athlete to report to nurse the next school day.

❖ Athletic Trainer:

- If the Athletic Trainer is present during the initial injury they will evaluate the student-athlete using on field assessments.
- After evaluating the student-athlete, if a head injury/concussion is suspected the student-athlete will be referred to the emergency room or primary care physician.
 - Once a student-athlete has been referred to a physician they **WILL NOT** be permitted to return to play until they have a written clearance from that physician. Emergency room clearances **WILL NOT** be accepted for the student-athlete to return to play.
- The Athletic Trainer will inform the student-athlete's parents, Athletic Director, and School Nurse of the injury.
 - The School Nurse will initiate appropriate follow-up upon the student's return to school.
- The Athletic Trainer and School Nurse will provide coordinated care for the duration of the injury.
 - They will also be responsible for administering any post-concussion ImPACT testing.
 - Any testing results may be forwarded to the athlete's treating physician.
- Athletic Trainer will monitor the student-athlete and keep the School Nurse informed of symptomatology and neurocognitive status, for the

purpose of developing or modifying an appropriate health care plan for the student.

- Athletic Trainer is responsible for monitoring recovery and coordinating the appropriate return to play progression as recommended by student's physician and the district's return to play protocol.
- Athletic Trainer will maintain appropriate documentation regarding assessment and management of injury.

❖ School Nurse

- The student-athlete should report to the School Nurse upon return to school and the nurse will:
 - Assist in developing an individualized health care plan for school, based on the student-athlete's current condition, and initial injury information provided by the Athletic Trainer, parents, Coach, and/or treating physician.
 - Notify the student-athlete's guidance counselors and teachers of the injury and implement the individualized health care plan, as soon as possible.
 - Monitor the student-athlete on a regular basis during the school day.
 - Will maintain appropriate documentation from treating physician regarding student-athlete's progression to be kept with student's PIAA physical form. A copy will be provided to the Athletic Director, Coach and Athletic Trainer.
 - Keep the Athletic Trainer informed of any changes in symptomatology and neurocognitive status.

If a student-athlete suffers a concussion the first few days after their injury may include cognitive and physical rest. Cognitive rest can be obtained by significantly decreasing time on electronic devices (cell phones, tablets, computers), television, video games, studying and any other activity that may stimulate the brain.

Physical rest can be obtained by refraining from physical education classes, athletic competitions, fitness activity and any other activity that may pose a risk of a head injury. Cognitive and physical rest is recommended until the athlete can get an appointment to see a physician for further evaluation.

Neuropsychological testing is utilized to help determine recovery after concussions. All athletes at the Ferndale Area Jr./Sr. High School are required to take a baseline ImPACT test prior to participation in any sport. Athletes will then take the ImPACT test every two years, replacing the previous baseline. A post-injury test may be administered after a concussion is suspected at the discretion of the treating physician. It may be done 48-72 hours post injury. It will not be performed more than once a week, unless requested by the treating physician.

ImPACT Applications, Inc. is the maker of ImPACT® (Immediate Post-Concussion Assessment and Cognitive Testing), the most widely used and most scientifically validated computerized concussion management tool available. The test is used to help evaluate and manage concussions. ImPACT is not a diagnostic tool; only a licensed healthcare professional can diagnose and treat a concussion. The ImPACT test scores can be used as an important component of assessment of an injury.

ImPACT measures multiple aspects of neurocognitive function, including working memory, attention span, reaction time, sustained and selective attention time, and non-verbal problem solving. The test also records current severity of concussion symptoms using a point scale. It detects and flags attempts to manipulate the test scores. At the end of the test it produces a comprehensive report of test results.

Any student at the Ferndale Area Jr./Sr. High School, who does not participate in the athletic program, may receive baseline ImPACT testing upon written consent from their parents.

Every injury and student-athlete is different. Not everyone will exhibit the same signs and symptoms. It is crucial that the injury is completely resolved prior to the athlete returning to full activity. Returning to sports must be a gradual process to ensure the body is capable of handling the demands that will be placed on it. Each sport will place different demands on the body so the graduated return to play will follow the same guidelines but may be individualized based on each sport.

After a written clearance is obtained permitting the student to return to participation they must complete the graduated return to play protocol. No student will be permitted to return to play until the protocol guidelines have been met. **NO EXCEPTIONS!**

Graduated Return to Play Protocol

- 1. No Activity**
- 2. Light Aerobic Exercise**
- 3. Sport Specific Exercise**
- 4. Non-contact Training Drills**
- 5. Full Contact Practice**
- 6. Return to Play**

Every stage of the protocol must be done under supervision of the Athletic Trainer. Stages 2 thru 5 will be no less than 1 day per stage. All stages of the protocol must be completed symptom free for the student to be fully able to return to play. If during a stage the student gets any symptoms they will stop immediately and rest for a 24-hour period. If they remain symptom free for 24 hours after that the student may return to the protocol, however they will need to start from the beginning. If symptoms continue to occur and the return to play protocol cannot be completed the student-athlete will be referred back to the physician.

**** Athletes must participate in a full contact practice prior to returning to competition; walk through practices will not count as full contact practice. ****

Once the following criteria are completed the athlete may fully return to competition with no restrictions.

- Student-athlete has a written clearance from a physician (not from an emergency room) stating the student-athlete may return to play.
- Post injury ImPACT test have met baseline score requirements per treating physician
- Student-athlete has completed the return to play protocol and remained asymptomatic throughout the stages.

Ferndale Area Junior/Senior High School

Graduated Return to Play Protocol

Stage	Functional Exercise	Objective	Symptoms
No Activity	Complete physical and cognitive rest	Recovery	
Light Aerobic Exercise	<70% intensity No resistance	Increase heart rate	
Sport-Specific Exercise	No head impact Drills related to sport	Add movement	
Non-contact Training Drills	More complex training drills within sport Resistance training	Exercise, condition, and cognitive load	
Full Contact Practice	Participate in normal training activities	Restore confidence and assess functional skill by staff	
Return to Play	Normal game play	No restrictions	

Each stage must be completed without symptoms. Stages 2 thru 5 will be no less than 1 day per stage. If asymptomatic, the student-athlete may proceed to the next stage. If any symptoms occur the activity will stop and the student-athlete will have a 24-hour rest period. If they remain symptoms free for the 24-hour rest period they may continue the protocol, but start from the beginning.

****The student-athlete will not be permitted to return to competition until they have been symptom free through a full contact practice. Walkthroughs will not count. NO EXCEPTIONS! ****

Ferndale Area School District
Refusal of Emergency Transportation

I _____, parent of _____,
am refusing emergency transportation of my child for a suspected injury
on (date) _____.

Parent Signature _____

Parent Contact # _____

