



Concussion Care Protocol

General Information:

A concussion means a complex pathophysiological process affecting the brain caused by a traumatic physical force or impact to the head or body, which may include temporary or prolonged altered brain function resulting in physical, cognitive, or emotional symptoms or altered sleep patterns and which may or may not involve a loss of consciousness.

A student's best chance of a full recovery from a concussion involves two critical components: **cognitive and physical rest**. Continued research has shown cognitive rest to be essential in the quick resolution of concussion symptoms. Cognitive stimulation includes: driving, playing video games, computer use, text messaging, cell phone use, loud and/or bright environments, watching television, reading, and studying. These stimuli must be limited, and in most cases, completely avoided for a period of time during recovery. Physical activity such as physical education, athletics, strength or cardiovascular condition, and performing art practices/performances must be completely avoided or regulated while recovering from a concussion.

Points of Emphasis:

- **It is recommended that this protocol is shared with the student's primary care physician (licensed to practice medicine in all its branches) during the initial visit.**
- Recovery from a concussion is a very individualized process. Caution must be taken not to compare students with concussions as they progress through the recovery process.
- **For the concussion care protocol to be initiated the student must be initially evaluated by a primary care physician** (licensed to practice medicine in all of its branches) and documentation must be provided to the school nurse or athletic trainer. An emergency room/acute care note is only temporary until seen by the student's primary care physician within one week. A student may be referred to a physician specializing in concussion care for further recommendations and eventual clearance for full return to learning (academics) and return to play (athletics).
- Reduction in work volume, modifications and accommodations for academic work will be necessary to promote healing and reduce the student's anxiety level related to perceived course workload.
- **For the student athlete:** Upon return to school, the student must report to the athletic trainer **and** the school nurse daily to monitor symptoms and determine progression to the next stage within the concussion care protocol.
- **For the non-athletic student:** report only to the school nurse daily.

Four Stage Progressions to the Full Return to Academic and Athletic Activity

Stage 1 - Complete Rest

- Characteristics
 - Severe symptoms at rest
 - Symptoms may include but are not limited to:
 - Headache or pressure in head, dizziness, nausea, photosensitivity, auditory sensitivity, inability to focus/concentrate, memory/lack of recall, feeling mentally foggy, unusual changes in mood, fatigue
 - Students may complain of intense and continuous/frequent headaches
 - Students may not be able to read for more than 10 minutes without an increase in symptoms
- Initial evaluation by primary care physician (not ER)
- No PE or athletic participation (includes practices or attending events)
- Interventions:
 - No school attendance for *at least* one full day – emphasis on cognitive and physical rest
 - Sports – does not participate or attend any PE/sports events
 - NO TESTS, QUIZES OR HOMEWORK at this stage
 - Parent and student receive copy of MHS Concussion Care Protocol
 - School Nurse will notify student's teachers and appropriate staff

Progress to stage 2 when:

- ✓ Decreased sensitivity to light or noise
- ✓ Decreased intensity and frequency of headaches and dizziness
- ✓ Ability to do light reading for 10 minutes without increased symptoms
- ✓ Decreased feeling of foggiess or confusion

If the student remains in Stage 1 longer than 2 weeks, the learning support team will present the student's case to the Multi-Tiered Systems Support (MTSS) personnel for review and possible need for further assistance. The school nurse will consult with the primary care physician.

Stage 2 - Return to School (Options for altered daily class schedule)

- Characteristics
 - Mild symptoms at rest, but increasing with physical and mental activity
- Modified class schedule
 - Limited attendance for 1-2 weeks. Example: alternate afternoon classes and morning classes and repeat as symptoms warrant
- No PE or athletic participation – study hall is strongly recommended
- No Performing Arts class participation (may attend if does not experience increase of symptoms, but not participate)
- No Behind the Wheel (Driver's Ed) until cleared by primary physician.
- For the Student athlete: report daily to the athletic trainer and the school nurse.
- For the non-student athlete: report daily to the school nurse for the assessment checklist.
- Interventions/Accommodations according to level of symptoms:
 - Offer quieter setting instead of choir, band, PE areas or cafeteria (i.e., study hall, nurse's office, media center)
 - Reduce weight of backpack (student, family) or provide second set of books (teachers)
 - Obtain a "five minute pass" from the school nurse to avoid noisy, crowded hallways between class periods
 - Provide alternatives to computer work, videos/movies in class
 - Divide up work into smaller portions (15-20 minutes at a time)
 - Allow use of sunglasses when viewing Smartboards, PowerPoint presentations as needed to help reduce light sensitivity.
 - NO TESTS, QUIZES OR HOMEWORK during Stage 2 regardless whether the student says he or she is able to do so
 - Math and science computations may be more difficult during recovery
 - Provide student with copies of class notes (teacher or student generated)
 - Audio books are helpful for students struggling with visual processing
 - May wear hat or sunglasses to reduce light sensitivity

Progress to stage 3 when:

- ✓ School activity does not increase symptoms
- ✓ Overall symptoms continue to decrease

Stage 3 – Full Day of School Attendance

- Characteristics
 - Symptom free at rest
 - Mild to moderate symptoms with cognitive and school day activity
- No PE or athletic participation (may attend class/practices/events as tolerated, but no participation)
- No band, chorus, theatrical plays or musicals (may attend, but no participation)
- No driver's education behind the wheel (may ride as passenger)
- For the student athlete: report daily to athletic trainer and school nurse.
- For the non-athlete student: report daily to the school nurse for assessment checklist.
- Interventions/accommodations:
 - Continue with interventions listed in Stage 2 as needed
 - Progress to limited homework, tests, quizzes
 - Split tests into halves
 - Limit to 1 test per day (Nurse and Guidance Counselor will help coordinate)

Progress to Stage 4 when:

- ✓ Symptom free with cognitive and physical activity
 - Student should report any return of symptoms with cognitive or school day activity
- ✓ Written clearance by primary care physician or neurologist for return to physical and full academic activities.

If unable to progress to Stage 4 after 3 weeks, and it is unlikely the student will be able to make up required work, the Learning Support Team, MTSS, and parents will consider possible course level changes, or class withdrawal.

Consider a 504 Plan after 8-10 weeks of residual symptoms with educational impact.

Stage 4 – Full Academic and Athletic Participation

- Characteristics:
 - Asymptomatic with academic/cognitive and physical activities
- For the student-athlete: report daily to the athletic trainer and school nurse. Student will begin the Illinois High School Association's (IHSA) required Return to Play Protocol with the athletic trainer.
- For the non-athlete student: report daily to the school nurse for assessment checklist.

- Interventions/accommodations:
 - Resumption of full academic responsibilities once symptoms have resolved completely as determined by primary care physician. School nurse will notify teachers.
 - Create plan for possible modification and gradual completion of required make-up work (guidance counselor, teacher, department chair)
 - Consider tutoring services if student has more than 3 weeks of required academic work to make up
 - Teachers have the discretion to identify essential academic work for their course.
 - Students are exempt from needing to make up missed PE classes due to a concussion.
 - For the student athlete: required to follow the IHSA Return to Play Protocol under the direction of the athletic trainer.
 - For the non-athlete student: written clearance to full participation from the primary care physician will be required for return to PE participation. Upon receipt of clearance, school nurse will consult with PE teacher regarding appropriate return to full participation within current activity (no formal gradual return to physical activity regarding PE classes or performing arts classes, but discretion is recommended).

- IHSA Return to Play Protocol (**required**)
 - Written clearance from the primary care physician is required to begin physical activity
 - The IHSA Return to Play Protocol includes 5 phases of activity with increasing intensity. Each phase will take place 24 hours following the previous step. If symptoms return during any phase, a 24 hour period of rest is required before repeating that phase.
 - For the student athlete: This protocol will be performed under the supervision of the athletic trainer.
 - Stage 1: Light aerobic activity
 - Stage 2: Increased aerobic activity
 - Stage 3: Non-contact activity related to specific sport/skill
 - Stage 4: Full contact activity
 - Stage 5: Return to competition

Follow Up:

- The athletic trainer and/or school nurse will conduct a follow-up assessment with the student one week after he/she returns to full academic and athletic activity.
- The student is encouraged to meet with the guidance counselor regularly to discuss progress, grade, and status of make-up work.
- The student is encouraged to meet with the athletic trainer or school nurse to assess any recurring symptoms.

For additional questions, please contact the student's school counselor, the school nurse, or the athletic trainer.

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Resources:

Heads Up Concussion Training, Centers for Disease Control
Libertyville High School Concussion Care Protocol, May 2016
Illinois General Assembly - Public Act 099-0245
Return to Learn After a Concussion – A Guide for Teachers and School Professionals, Ann & Robert H. Lurie, Children's Hospital of Chicago, Institute for Sports Medicine, 2016

Updated on 8/3/18