

CONCUSSION MANAGEMENT REGULATION

The following concussion management protocols shall be followed for all students in the Wallkill Central School District who display signs and symptoms of a concussion. This includes student-athletes as well as students in physical education classes and participants other school activities.

On Field Evaluation

According to the US Department of Health and Human Services - Center for Disease Control and Prevention (CDC), "a forceful bump, blow or jolt to the head or body that results in rapid movement of the head" is cause to look for signs of a possible concussion. During various activities, including athletic practices and contests, participants demonstrating one or more of the signs and symptoms of a concussion identified by the CDC, as outlined below, should be evaluated immediately by the coach, the athletic trainer, or the school nurse:

Signs Observed by Coach, Teacher or Other Staff Member: appears dazed or stunned; is confused about assignment or position; forgets instructions; is unsure of game, score or opponent; moves clumsily; answers questions slowly; loses consciousness (even briefly); shows mood, behavior, or personality changes; can't recall events prior to or after hit or fall.

Symptoms reported by Student: headache or "pressure" in the head; nausea or vomiting; balance or dizziness; double or blurry vision; sensitivity to light; sensitivity to noise; feeling sluggish, hazy, foggy or groggy; concentration or memory problems; confusion; just not "feeling right" or "feeling down."

If determined to have a possible concussion, the participant shall not be permitted to continue any activity until consultation with, and clearance by, a physician has occurred.

Pediatric Concussive Injury

Concussions in the pediatric and adult individuals differ. Children are not "little adults." They are actively developing organisms that respond differently, have different needs, and face different expectations after injury. An appreciation of these differences and their implications is crucial for providing optimal care to the young athlete or participant after concussion. Children (ages 5-18 years old) should not be returned to playing, training or other physical activity until they are clinically completely symptom-free. Because of the physiological response during childhood to head trauma, a conservative return-to-play approach is recommended.

The Nature of Concussive Head Injury

1. Concussions may be caused either by a direct blow to the head, face or neck, or elsewhere on the body, with an impulse-like force transmitted to the head.
2. Concussions typically result in the rapid onset of short-lived impairment of neurologic function that resolves spontaneously.

3. Concussions may result in neuropathological changes, but the acute clinical symptoms largely reflect a functional disturbance rather than structural changes.
4. Concussions result in a graded set of clinical syndromes that may or may not involve loss of consciousness. Resolution of the clinical and cognitive symptoms typically follows a sequential course.
5. Concussion is typically associated with grossly normal structural neuroimaging studies.

Grading Concussions

Simple concussion refers to an injury that progressively resolves without complication over 7-10 days. Simple concussions represent the most common form of this injury. Simple concussions can be managed appropriately by primary care physicians or by certified athletic trainers working under medical supervision. Management of a simple concussion includes rest until all symptoms resolve, followed by a step-by-step program of exertion before return to sport or other physical activity. All concussions mandate evaluation by a medical doctor.

Complex concussion encompasses cases where the participant suffers persistent symptoms, including persistent symptom recurrence with exertion. A complex concussion will typically have characteristics such as concussive convulsions, prolonged loss of consciousness lasting longer than one minute, or prolonged cognitive impairment. If a student exhibits these characteristics, the athletic trainer, coach, school nurse, or any other District employee in charge of or supervising the activity will call 911 and summon emergency responders. The student should be assessed by emergency responders at the scene of the injury and immediately be referred to and managed by a physician with specific expertise in the management of concussive injury. Such experts may include sports physicians, sports neurologists, or neurosurgeons.

Concussion Management

A player should never return to play while symptomatic. When a participant shows ANY symptoms or signs of a concussion, as outlined above:

1. The participant will not be allowed to return to play in the current game, practice, or activity;
2. The participant will not be left alone; regular monitoring for deterioration is essential over the initial few hours following injury;
3. The participant should be medically evaluated following the injury using the concussion checklist on the sideline, in trainer's office, or in the nurse's office **(Appendix B)**;
4. Return to play must follow a recommended medically-supervised step-by-step plan **(Appendix D)**;
5. A head injury warning sheet will be given to each athlete or other student and the parent who picks up athlete **(Appendix A)**;
6. The student must be picked up by someone over the age of 18, preferably by the parent or guardian. The individual will not be released by themselves or with a friend.

7. A follow up call will be made later in the day/evening by the medical staff or the person who cared for the student to check his/her status.
8. The incident must be reported to the nurse's office by the adult responsible for the student at the time of the concussive incident no later than the next school day and ensure that an accident report is completed.

Return-to-Play Protocol

During the recovery period, in the first few days following the injury, it is important to emphasize to the student that physical and cognitive rest is required. Activities that require concentration and attention may exacerbate the symptoms and, as a result, delay recovery.

The student shall not return to school or activity until he/she is symptom free for at least 24-hours. Return-to-play following a concussion involves the following six step process. This progression will be over 7-10 days for return to play, with a minimum of 7 days.

1. No activity, complete rest; once asymptomatic, proceed to next level;
2. Light aerobic exercise such as walking, or stationary biking; no resistance training;
3. Sport specific exercise (skating in hockey, running in soccer etc.);
4. Non-contact drills, followed by a medical check by the school nurse;
5. Full contact training and/or exertional testing, followed by a medical check by the school nurse;
6. Game play or full activity participation

With this progression, the student should continue to the next level if asymptomatic at the current level. If any post-concussion symptoms occur, the student should drop back to the previous asymptomatic level and try to progress again after 24 hours. The student should be symptom-free without the use of any medication to mask the pain. The program and return to play will be monitored either by the athletic trainer, coach, physical education teacher or the school nurse, as appropriate.

These protocols will be followed by **all** Wallkill Central School District health care professionals (athletic trainers, nurses, school physician), coaches and teachers who are responsible for returning a student to active participation after a concussion, as appropriate. The District's concussion management/return-to-play protocol is to be followed even if the student presents a prescription and/or other note from his/her primary care physician or emergency room physician authorizing a return to play or other physical activity sooner than required by this policy.

Students must present a medical clearance from his/her primary care physician to the appropriate health office (**Appendix C**). Prior to the student's return to full participation, the student will need to have the return-to-play form signed by the District-Wide Nurse Practitioner (**Appendix D**), which will permit the student to begin on step 2 of the Return-to-Play Protocol.

Training

Coaches, Physical Education Teachers, Nurses, Athletic Trainers and other appropriate staff must receive training in NYSED approved courses every two (2) years. Prior to coaching, each coach must show proof that he/she completed the required training.