

Waynesboro Public Schools Sports Concussion Management Plan

Medical Management of Sports Related Concussions continues to evolve as more and more research is done on the effects of head trauma (short & long term), especially in the school aged patient. Waynesboro Public Schools (WPS) recognizes that a concussion is a serious injury to the brain resulting from a force applied directly or indirectly to head (i.e. a mechanism of injury) producing a set of signs and symptoms reflecting the brain's dysfunction. WPS is committed to safe practice and provides a Sports Concussion Management Plan to educate parents, student-athletes, coaches and teachers about the nature and risks of concussions, and procedures to detect and treat these brain injuries prior to safe return to play. Central office and school administrators, athletic directors, coaches, school nurses, teachers, parents, student-athletes, certified athletic trainers (ATC), and other health care providers form a team to work together to identify concussions once they occur and to ensure safe return to play.

WPS guidelines mandate that, following a concussive mechanism of injury, if a student-athlete exhibits or reports any sign or symptom of a concussion; he/she will be removed from practice or play. Parents are notified on the day of the injury. The student-athlete will undergo medical evaluation by an appropriate licensed health care professional, as defined by the Virginia Board of Education, i.e. either a physician, physician assistant, osteopathic physician, or athletic trainer licensed by the Virginia Board of Medicine; a neuropsychologist licensed by the Board of Psychology; or a nurse practitioner licensed by the Virginia Board of Nursing per the WPS Sports Concussion Management Plan described in this document. WPS will not allow the student-athlete to participate in a practice or game while experiencing any lingering or persisting symptoms of a concussion, no matter how slight. The student-athlete must be completely symptom free at rest and during physical and mental exertion, with neurocognitive functioning that has returned to normal baseline prior to return to sports training, practice, play, or competition.

The WPS Sports Concussion Program includes the following five fundamental components:

- (1) Verified training of coaches on concussion risks, recognition, and management.
- (2) Education of parents and student-athletes on concussion risks, signs and symptoms, and post-injury management for sports and school. Parents and student-athletes will read, sign, and submit to the school the Waynesboro Public Schools Concussion Information Sheet prior to season opening.
- (3) Immediate removal from play by the student-athlete's coach, ATC, or team physician of any student-athlete suspected of sustaining a concussion in a practice or game (i.e. exhibiting signs and/or symptoms). "When in doubt, sit them out" is the operating principle.
- (4) Treatment of the Student-Athlete in School. School personnel will be trained on concussion management in the school. They will be informed of the student-athlete's injury and its specific symptom manifestations- physical, cognitive, emotional, sleep. A school care plan will be used to assist the student athlete's recovery, providing maximally tolerated academic activities per Virginia Board of Education Protocol for Return to Learn 2016. (see Appendix B: Protocol for Return to Learn per Virginia Board of Education 2016 guidelines).

- (5) Graduated Return to Sports Participation program involving stepwise increase in physical activity when athlete is symptom free at rest and attending school full-day. (see Appendix C: Gradual Return to Sports Participation Program Following a Concussion).

Education of Parents and Student-Athletes

1. Student-athlete and Parent or guardian: a. In order to participate in any extracurricular athletic activity, WPS will require student-athletes and the student-athlete's parent or guardian to review information on concussions on an annual basis (every 12 months). This information will include a parent and student-athlete fact sheet along with watching a concussion video provided by WPS. After having reviewed the materials describing the short and long-term health effects of concussions, each student-athlete and the student-athlete's parent or guardian shall sign a statement acknowledging receipt; review and understanding of such information (see Appendix F]. b. By signing this form the student-athlete and the student-athlete's parent or guardian will accept the responsibility for reporting their injuries and illnesses to the coaching staff, school nurse and school ATC, including signs and symptoms of concussions.
2. A student-athlete suspected by that student-athlete's coach, ATC, team physician or school nurse of sustaining a concussion or brain injury in a practice or game shall be removed from the activity at that time. The student-athlete who has been removed from play, evaluated by the school ATC or school team physician, and suspected to have a concussion or brain injury shall not return to play that same day. A student-athlete suspected of sustaining a concussion by the coach, ATC, team physician or school nurse will be treated according to the WPS Sports Concussion Management Plan.
3. The Waynesboro School Division's Concussion Management Team ("CMT")
 - a. shall be appointed by the superintendent and shall consist of a school administrator, an athletic administrator, a licensed health care provider, a coach, a parent or guardian of a student-athlete, a student-athlete and any such other person or persons the superintendent determines will assist the CMT in its actions.
 - b. The CMT shall develop concussion training materials for school personnel, volunteers, student-athletes and parents of student-athletes. Those materials may address the proper fitting and maintenance of helmets. The CMT shall also develop concussion reporting, management and review protocols for the school division. The CMT shall maintain a record of all incidents where a student-athlete has been removed from a game, competition or practice because he or she has been suspected of sustaining a concussion.
 - c. The CMT shall meet at least once per semester and shall evaluate the division's training materials, concussion reporting, management and review protocols annually.
4. WPS recognizes that a concussion can affect the student-athlete's ability to function in many activities in the school setting. Therefore, WPS will assist the student-athlete with his/her academic needs and provide a school care plan for the gradual reintroduction of cognitive demands for student-athletes who have sustained a concussion. (See Appendix B. for Virginia Board of Education Protocol for Return to Learn).

Protocol for Return to Play

The WPS has established a Gradual Return to Sports Participation Program Following a Concussion that describes in detail the protocol for return to play. That protocol is shown in Appendix C of this Plan. Per Virginia Board of Education Guidelines for Policies on Concussions in Students 2016:

1. No member of a school athletic team shall participate in any athletic event or practice the same day he/she is injured and:

- a. exhibits signs, symptoms, or behaviors attributable to a concussion; or
- b. has been diagnosed with a concussion.

2. No member of a school athletic team shall return to participate in an athletic event or training on the days after he/she experiences a concussion unless all of the following conditions have been met:

- a. the student attends all classes, maintains full academic load/homework, and requires no instructional modifications;
- b. the student no longer exhibits signs, symptoms, or behaviors consistent with a concussion, at rest or with exertion;
- c. the student is asymptomatic during, or following periods of supervised exercise that is gradually intensifying; and
- d. the student receives a written medical release from an appropriate licensed health-care provider (defined as “a physician, physician assistant, osteopath physician, or athletic trainer licensed by the Virginia Board of Medicine; a neuropsychologist licensed by the Board of Psychology; or a nurse practitioner licensed by the Virginia State Board of Nursing.)

The Zurich Consensus Statement (November 2012) return-to-play guidelines and the American Academy of Pediatrics (AAP) Concussion Guidelines (August 2010), are available online to assist healthcare providers, student-athletes, their families, and school divisions, as needed.

Helmet Replacement and Reconditioning Policies and Procedures

Helmets will be National Operating Committee on Standards for Athletic Equipment (NOCSAE) certified by the manufacturer at the time of purchase. Reconditioned helmets will be NOCSAE recertified by the reconditioner.

Training Required for Personnel and Volunteers

WPS will require that school nurses, applicable teachers, coaches, ATC, team physicians and licensed health care provider volunteers receive current training annually on recognizing the signs and symptoms of a concussion, strategies to reduce the risks of concussions, how to seek proper medical treatment for a student-athlete suspected of having a concussion, and when the student-athlete may safely return to full sports participation.

Coaches:

- * Review WPS Sports Concussion Management Plan Policy and Procedures
- * NFHS Concussion in Sports: What You Need To Know Coaches will complete online video training regarding concussions and all related training components. A certificate of completion will be submitted to the Athletic Trainer. CDC Coach Fact Sheet, clipboard stickers, CDC Heads Up: Concussion in High School Sports tool kits will be provided

- * Teach safe technique & skills; proper use of equipment

Written verification/ acknowledgement will be provided to school administration prior to the first practice and on an annual basis.

School nurses, school counselors and applicable teachers:

- * Review WPS Sports Concussion Management Plan policy and procedures
- * CDC Heads Up to Schools: Know Your Concussion ABCs tool kits will be provided. Written verification/ acknowledgement will be provided to school administration prior to the start of school year and on an annual basis.

Volunteers:

- * Review WPS Sports Concussion Management Plan policy and procedures
- * CDC Heads Up: Concussion in High School Sports tool kits will be provided. Written verification/ acknowledgement will be provided to school administration prior to the start of school year (or when first possible) and on an annual basis.

ATC:

- * Review WPS Sports Concussion Management Plan policy and procedures
- * American Academy of Pediatrics (AAP) Sport-Related Concussion in Children and Adolescents 2010
- * Continuing education programs through the National Athletic Trainers Association (NATA), and other professional organizations.

Team Physicians:

- * Review WPS Sports Concussion Management Plan policy and procedures
- * AAP Sport-Related Concussion in Children and Adolescents 2010
- * CDC Heads Up: Concussion in High School Sports tool kits
- * CDC Heads Up: Brain Injury in Your Practice tool kits * Continuing education programs through professional organizations

Community Involvement

WPS will provide these guidelines to organizations sponsoring athletic activity for student-athletes on school property and encourage the organization comply with concussion policies.

APPENDIX A. Recognition and Management of Concussion

Common Signs and Symptoms

Thinking/Remembering: Emotional: Physical: Sleep:*

- *Difficulty thinking clearly*
- *Difficulty concentrating or remembering*
- *Feeling more slowed down*
- *Feeling sluggish, hazy, foggy, or groggy*

Signs (observed by others):

- *Athlete appears dazed or stunned*
- *Confusion*
- *Forgets plays*
- *Unsure about game, score, opponent*
- *Moves clumsily (altered coordination)*
- *Balance problems*
- *Personality change*
- *Responds slowly to questions*
- *Forgets events prior to hit*
- *Forgets events after the hit*
- *Loss of consciousness (any duration)*

Symptoms (reported by athlete):

- *Headache*
 - *Fatigue*
 - *Nausea or vomiting*
 - *Double vision, blurry vision*
 - *Sensitive to light or noise*
 - *Feels sluggish*
 - *Feels “foggy”*
 - *Problems concentrating*
 - *Problems remembering*
 - *Irritable*
 - *Sad*
 - *More emotional than usual*
 - *Nervous*
 - *Headache or “pressure” in head*
 - *Nausea or vomiting*
 - *Balance problems or dizziness*
 - *Fatigue or feeling tired*
 - *Blurry or double vision*
 - *Sensitivity to light or noise*
 - *Numbness or tingling*
 - *Does not “feel right”*
 - *Drowsy*
 - *Sleeps less than usual*
 - *Sleeps more than usual*
 - *Has trouble falling asleep*
- *Only ask about sleep symptoms if the injury occurred on a prior day.*

Concussion Management for Athletic Trainers:

Any student-athlete who sustains a hard blow or trauma to the head that results in signs or symptoms consistent with a concussion is advised to report the injury to their coach or Athletic Trainer immediately. Concussions, no matter how mild they may seem, must be taken seriously. Any athlete suspected of having sustained a concussion shall be immediately removed from participation and shall not return to play that day and also not until cleared by an appropriate health care professional (Athletic Trainer, Physician, Physician Assistant or Nurse Practitioner). The student athlete will not be allowed to drive and the coach or athletic trainer should insure that the athlete will be accompanied by a responsible adult over the next 24-48 hours.

When a student-athlete sustains a concussion or is suspected by the athletic trainer, coach or school nurse of having a concussion, the management plan outline below will be followed.

1. Scene Size-up – Scene Safety, BSI

Initial Assessment – Mental Status, Airway, Breathing, Circulation and Stabilization of cervical spine as needed.

2. Evaluation by Certified Athletic Trainer (ATC) with a standardized concussion sideline assessment instrument per Virginia Board of Education Guidelines 2016. Sideline Concussion Assessment Tool (SCAT-II, SCAT III, ChildSCAT3), the Standardized Assessment of Concussion (SAC), and the Balance Error Scoring System (BESS) are examples of sideline concussion assessment tools that test cognitive function and postural stability.

3. If an ATC is not on scene then the coach will remove the student-athlete from the game or practice. The coach will immediately contact the ATC and relay information concerning the athlete's condition (signs and symptoms). If signs and symptoms are suspected to be those of an emergent head injury, the coach will activate EMS (911) and accompany the athlete with emergency care card in the ambulance, if parents/guardians are not available on scene. If signs and symptoms are non-emergent (i.e. signs and symptoms of a concussion uncomplicated by emergent head injury), then the ATC will contact the parent/guardian as soon as possible. The coach or ATC will release the athlete directly to the parent with Form 1 (see Appendix D). If the parent/guardian is not available, then the coach or ATC will release the athlete to a responsible adult with the parent's permission if possible.

4. The student-athlete MUST be evaluated by the appropriate licensed health care provider (as defined by Virginia Board of Education 2016 Guidelines) on subsequent days to determine the date when the athlete is symptom free. The athlete must undergo an at least 5-day stepwise return to play protocol and receive written clearance to return to play by a licensed healthcare provider, preferably the same health care provider.

5. All student-athletes who have had a prior concussion at any time must be evaluated by a physician.

6. Student-athletes who have been evaluated for a concussion by a physician must bring written documentation of medical clearance (Form 2: Appendix E) from the physician and be cleared by the school athletic trainer prior to starting the Gradual Return to Sports Participation Program.

7. The student-athlete must have no symptoms for a minimum of 24 hours prior to considering medical clearance for starting the Gradual Return to Sports Participation Program.

8. All student-athletes must follow a Gradual Return to Sports Participation Program (minimum of 5 days) prior to returning to full participation.

9. If the student-athlete develops any signs or symptoms during the Gradual Return to Sports Participation Program after they have rested for 24 hours and tried a second time to progress they must be evaluated by a physician.

After the school ATC evaluates the student-athlete, on the sideline, management will follow one of three possible pathways depending on the assessment (per 2010 AAP Sport-Related Concussion in Children and Adolescents, 2008 Zurich Concussion in Sport Group Consensus):

1. Immediate referral to EMS (911)

EMERGENCY Management - When to refer the athlete immediately (i.e. by rescue squad)

An athlete who exhibits any of the following symptoms should be transported immediately to the nearest emergency department, via emergency vehicle; spine board for those with LOC or neurologic symptoms.

- *deterioration of neurological function*
- *loss of consciousness on the field*
- *decreasing level of consciousness or unresponsiveness*
- *decrease or irregularity in respirations or decrease or irregularity of pulse*
- *unequal, dilated, or unreactive pupils*
- *cranial nerve abnormalities*
- *any signs or symptoms of associated injuries, spine injury, skull fracture, or bleeding*
- *mental status diminishes: lethargy, difficulty maintaining arousal, confusion or agitation*
- *seizure activity*
- *sudden onset of headache that worsens*
- *repetitive, forceful vomiting*
- *slurred speech*
- *cannot recognize people or places*

It is not recommended that the student-athlete who was referred to the emergency department due to the severity of their symptoms, per the referral signs/ symptom list above, be cleared for the Gradual Return to Sports Participation Program by the emergency department due to the possibility of delayed signs or symptoms not being present in the first 24 hours. Under normal circumstances, the school athletic trainer will monitor the concussed athlete on subsequent days, be in consultation with the athlete's coach, guidance counselor, and other school personnel as deemed necessary, and provide clearance for the athlete to enter the Gradual Return to Sports Participation Program (Appendix C) when the athlete is symptom free, has returned to full day school participation and no longer requires academic accommodations, in re: the concussion.

2. Referral to student's physician for second or subsequent concussion.

a. The ATC will contact the student-athlete's parent and give them the Athletic Training Concussion Information for Parents and Guardians (Appendix D: Form #1).

b. The physician can clear the student-athlete for a Gradual Return to Sports Participation (Form #3) (minimum 5 day progression) per WPS protocol, or may refer an athlete with second or subsequent concussion for additional management, e.g. a neuropsychologist licensed by the Board of Psychology.

c. Per WPS protocol, the ATC will perform a post injury evaluation and determine readiness to start the Gradual Return to Sports Participation Program. The ATC examination will include the symptom checklist, neurologic examination, and balance testing.

3. Management by ATC

The ATC shall manage the concussion using the following steps:

a. The ATC will contact the student-athlete's parent and give them the Athletic Training Concussion Information for Parents and Guardians (Form #1).

b. The ATC will perform the post injury evaluation and determine the student-athlete's readiness to start the Gradual Return to Sports Participation Program. The ATC examination will include the symptom checklist, neurologic examination, and balance testing.

c. The ATC will monitor the student-athlete's progress with the symptom checklist, physical and cognitive examination, and balance test on subsequent days after the injury. D. The student-athlete will begin the supervised Gradual Return to Sports Participation Program when cleared by the ATC.

Transport disposition is dependent on ATC assessment

- *amnesia lasting longer than 15 minutes*
- *motor deficits subsequent to initial on-field assessment*
- *sensory deficits subsequent to initial on-field assessment*
- *balance deficits subsequent to initial on-field assessment*
- *cranial nerve abnormalities subsequent to initial on-field assessment*
- *post-concussion symptoms that worsen*
- *additional post-concussion symptoms as compared with those on the field*
- *athlete is still symptomatic at the end of the game*

Referral after the Day of Injury

- *Any of the above findings*
- *Post-concussion symptoms that become present*

APPENDIX B. Virginia Board of Education: Protocol for Return to Learn

School personnel shall be alert to cognitive and academic issues that may be experienced by a student who has suffered a concussion or other head injury, including (i) difficulty with concentration, organization, and long-term and short-term memory; (ii) sensitivity to bright lights and sounds; and (iii) short-term problems with speech and language, reasoning, planning, and problem solving. Local school boards shall accommodate the gradual return to full participation in academic activities as appropriate, based on the recommendation of the student's licensed health care provider as to the appropriate amount of time that such student needs to be away from the classroom, and would benefit from these accommodations to promote recovery following a concussion.

1. A student recovering from a brain injury shall gradually increase cognitive activities progressing through some or all of the following phases. Some students may need total rest with a gradual return to school, while others will be able to continue doing academic work with minimal instructional modifications. The decision to progress from one phase to another should reflect the absence of any relevant signs or symptoms, and should be based on the recommendation of the student's appropriate licensed health-care provider in collaboration with school staff, including teachers, school counselors, school administrators, psychologists, nurses, clinic aides, or others as determined by local school division concussion policy.

a. Home: Rest

Phase 1: Cognitive and physical rest may include minimal cognitive activities – limit reading, computer use, texting, television, and/or video games; no homework; no driving; and minimal physical activity.

Phase 2: Light cognitive mental activity may include up to 30 minutes of sustained cognitive exertion; no prolonged concentration; no driving; and limited physical activity. Student will progress to part-time school attendance when able to tolerate a minimum of 30 minutes of sustained cognitive exertion without exacerbation of symptoms or reemergence of previously resolved symptoms.

b. School: Part-time

Phase 3: Maximum instructional modifications including, but not limited to shortened days with built-in breaks; modified environment (e.g., limiting time in hallway, identifying quiet and/or dark spaces); established learning priorities; exclusion from standardized and classroom testing; extra time, extra assistance, and/or modified assignments; rest and recovery once out of school; and elimination or reduction of homework. 6 Student will progress to the moderate instructional modification phase when able to tolerate part-time return with moderate instructional modifications without exacerbation of symptoms or re-emergence of previously resolved symptoms.

Phase 4: Moderate instructional modifications including, but not limited to established priorities for learning; limited homework; alternative grading strategies; built-in breaks; modified and/or limited classroom testing, exclusion from standardized testing; and reduction of extra time, assistance, and/or modification of assignments as needed. Student will progress to the minimal instructional modification phase when able to tolerate full-time school attendance without exacerbation of existing symptoms or reemergence of previously resolved symptoms.

c. School: Full-time

Phase 5: Minimal instructional modification - instructional strategies may include, but are not limited to built-in breaks; limited formative and summative testing, exclusion from standardized testing; reduction of extra time, assistance, and modification of assignments; and continuation of instructional modification and supports in academically challenging subjects that require cognitive overexertion and stress. Student will progress to non-

modified school participation when able to handle sustained cognitive exertion without exacerbation of symptoms or re-emergence of previously resolved symptoms.

Phase 6: Attends all classes; maintains full academic load/homework; requires no instructional modifications.

2. Progression through the above phases shall be governed by the presence or resolution of symptoms resulting from a concussion experienced by the student including, but are not limited to:

- a. difficulty with attention, concentration, organization, long-term and short-term memory, reasoning, planning, and problem solving;
- b. fatigue, drowsiness, difficulties handling a stimulating school environment (e.g., sensitivity to light and sound);
- c. inappropriate or impulsive behavior during class, greater irritability, less able to cope with stress, more emotional than usual; and
- d. physical symptoms (e.g., headache, nausea, dizziness).

3. Progression through gradually increasing cognitive demands should adhere to the following guidelines:

- a. increase the amount of time in school;
- b. increase the nature and amount of work, the length of time spent on the work, or the type or difficulty of work (change only one of these variables at a time);
- c. if symptoms do not worsen, demands may continue to be gradually increased;
- d. if symptoms do worsen, the activity should be discontinued for at least 20 minutes and the student allowed to rest
 - If the symptoms are relieved with rest, the student may reattempt the activity at or below the level that produced symptoms; and
 - If the symptoms are not relieved with rest, the student should discontinue the current activity for the day and reattempt when symptoms have lessened or resolved (such as the next day).

4. If symptoms persist or fail to improve over time, additional in-school support may be required with consideration for further evaluation.

- If the student is three to four weeks post injury without significant evidence of improvement, a 504 plan should be considered.

5. A student shall progress to a stage where he or she no longer requires instructional modifications or other support before being cleared to return to full athletic participation (return-to-play). The American Academy of Pediatrics (AAP) Return to Learn Following a Concussion Guidelines (October 2013), and the American Medical Society for Sports Medicine (AMSSM) Position Statement (2013), are available online to assist healthcare providers, students, their families, and school divisions, as needed.

APPENDIX C. GRADUAL RETURN TO SPORTS PARTICIPATION

Gradual Return to Sports Participation Program Following a Concussion

After a student-athlete has sustained a concussion they will be started on a supervised Gradual Return to Sports Participation Program only after they have received written medical clearance from the appropriate licensed health care provider, i.e. the ATC, or the physician to whom the athlete initially referred. Ideally the program will be supervised by the certified athletic trainer (ATC).

Waynesboro Public Schools, in conjunction with our Certified Athletic Trainer use the following return to play protocols when dealing with head injuries.

1. Time of Injury - Student-athlete immediately removed from ALL activity.
2. Complete physical and cognitive rest while symptomatic. This may include staying home from school or limiting school hours (and studying) for several days. Activities requiring concentration and attention may worsen symptoms and delay recovery.
3. Student-athlete must have no symptoms (be asymptomatic) for 24 hours before progressing to the following steps.

Stepwise progression:

Step 1 – Student-athlete may begin 30 minutes of light exertion cardio activity (ie. aerobic walking or exercise bike riding - no jogging or weight conditioning).

Step 2 – Student-athlete may begin 1 hour of jogging, lightweight training and sports-specific training that do not exceed 50% of full exertion.

Step 3 – Student-athlete may participate in 2 hours of non-contact practice that does not exceed 75% of full exertion.

Step 4 – Full practice participation with limited contact and 100% exertion (an individualized session should be devised when the regular team practice plan does not meet this criteria).

Step 5 - Return to full participation (limitations possible).

➤ Athlete must remain asymptomatic to progress to next level

**➤ If symptoms recur, stop for 24 hours and student-athlete must return to previous asymptomatic level ➤
Medical evaluation needed, if athlete's symptoms have recurred when progressing to next step on succeeding days.**

APPENDIX D. Form 1: Parent Information Following Concussion of Athlete

Parent/Guardian Information Following Concussion of Athlete (FORM 1 FRONT)

Dear Parent or Guardian,

While participating in athletics on (date) _____ your son/daughter _____ sustained a head injury that appears to be a concussion or brain injury. This fact sheet should answer your questions about concussions and how to treat them.

Your student-athlete's safety is our main priority. Your student-athlete will not be able to return to activity until a medical physician or your child's school athletic trainer (depending on their assessment) has determined that it is safe to do so with written clearance. Your student-athlete must complete the WPS supervised Gradual Return to Sports Participation Program prior to being allowed to compete.

To make sure he/she recovers, please follow these important instructions.

- Athlete reports to the training room tomorrow (next practice day) and subsequent days for follow-up evaluation.
- Please review the symptom list below. If any of these problems develop, contact the local emergency medical system or your physician immediately. Otherwise, follow the Home Care Instructions below.

Respectfully, _____ ATC Contact phone number: _____

Email: _____ 540-946-4629 - WHS Waynesboro High School

Emergency (911) Referral Checklist:

1. Loss of consciousness on the field; not aroused by verbal or painful stimuli
2. Amnesia (loss of memory) lasting longer than 15 minutes
3. Deterioration of balance/coordination
4. Decreasing level of consciousness
5. Numbness in extremity
6. Decrease or irregularity of breathing or pulse
7. Increase in blood pressure
8. Unequal, dilated, or unreactive pupils
9. Signs or symptoms of spine or skull injuries, bleeding or drainage from nose or mouth
10. Mental status changes (confusion, agitation, lethargic, etc)
11. Seizure activity
12. Repeated or forceful vomiting
13. Severe or worsening headache, not relieved by acetaminophen

Physician Referral (same day, or next day if occurring overnight)

14. Failure of symptoms to improve or symptoms worsen
15. Athlete is still symptomatic after 48 hours

(FORM 1 BACK)

Home Care Instructions

1. Use acetaminophen (Tylenol) for headache
2. Do NOT use aspirin or NSAIDs for headache.
3. Use an ice pack on head and neck as needed
4. Eat a light diet
5. Get plenty of sleep
6. REST (no strenuous activities, exercise, or sports)

IMPORTANT:

1. DO NOT drink alcohol or use narcotic pain relievers
2. AVOID use of electronic devices such as computers, video games, cell phone texting, etc. to allow for full cognitive recovery. Avoid exposure to loud music, especially through headphone devices.
3. Sunglasses should be considered if the athlete is experiencing sensitivity to light.
4. AVOID driving.
5. COGNITIVE REST is important. Speak with the Athletic Trainer to assure your teachers have been notified of your concussion as it may be necessary to stay home from school, have a shortened school day, a reduction in workload, or extended due dates. This depends on the severity of symptoms.

What is a concussion?

A concussion is a brain injury which results in a temporary disruption of normal brain function. A concussion is caused by a bump, blow or jolt to the head or body. Even what seems to be a mild bump to the head can be serious. A student-athlete does not have to lose consciousness (“knocked-out”) to suffer a concussion. Many concussion symptoms appear immediately after the injury, while others may develop over the next several days or weeks. The symptoms may be subtle and are often difficult to fully recognize. After suffering a concussion, no student-athlete should return to play or practice on that same day. Studies have shown us that a young brain does not recover quickly enough for a student-athlete to return to activity in such a short time. Your student-athlete should not participate in any HIGH risk activities that may result in head injury such as driving, physical education class, recess, ride a bike or skateboard until cleared by an appropriate licensed health care professional. Once a student-athlete no longer has symptoms of a concussion for a minimum of 24 hours and is cleared to return to physical activity by an appropriate licensed health care professional, he or she should proceed with activity in a supervised step-wise fashion to allow the brain to re-adjust to exertion. This should occur over a minimum of 5 days. (See Appendix C. Gradual Return to Sports Participation Program Form)

*****If the athlete sees a physician complaining of concussion, then the Form 2 (Appendix E.) and Form 3 (Appendix E.) Physician Clearance for the Gradual Return to Sports Participation must be signed and returned to the ATC prior to beginning the progression.***

How can a concussion affect schoolwork? Following a concussion, many student-athletes will have difficulty in school. These problems may last from days to months and often involve difficulties with short and long-term memory, concentration, and organization. In many cases it is best to lessen the student-athlete’s class load early on after the injury. This may include staying home from school for a few days, followed by a lightened schedule for a few days, or perhaps a longer period of time, if needed. Decreasing the stress on the brain early on after a concussion may lessen symptoms and shorten the recovery time.

Why is it so important that a student-athlete not return to play until they have completely recovered from a concussion? A second concussion that occurs before the brain recovers from the first can slow recovery or increase the chances of long-term problems. In rare cases, brain swelling can result leading to permanent brain damage or even death (“second impact syndrome”).

What is the best treatment to help my student-athlete recover more quickly from a concussion? The best treatment for a concussion is rest, both physically and mentally. There are no medications that can speed the recovery from a concussion. Exposure to loud noises, bright lights, computers, video games, television and phones (including text messaging) all may worsen the symptoms of a concussion. Your student-athlete should rest as much as possible in the days following a concussion. As the symptoms lessen, you can allow increased use of computers, phone, video games, etc., but not if symptoms worsen.

How long do the symptoms of a concussion usually last? The symptoms of a concussion will usually go away within one week of the initial injury. However, in some cases symptoms may last for several weeks, or even months.

Is a “CT scan” or MRI needed to diagnose a concussion? Diagnostic testing, which includes CT (“CAT”) and MRI scans, are rarely needed following a concussion. While these are helpful in identifying life-threatening brain injuries (e.g. skull fracture, bleeding, swelling), they are not essential for most student-athletes who have sustained severe concussions. A concussion is diagnosed based upon the student-athlete’s description/story of the injury/event and an appropriate licensed health care provider’s physical examination. *Some of this information has been adapted from the CDC’s “Heads Up: Concussion in High School Sports” and the NFHS’s Sports Medicine Advisory Committee. Please go to www.cdc.gov for more info.*

APPENDIX E. Form 2: Clearance, and Form 3: Physician Stepwise Progression Information and Orders

Medical Clearance for Gradual Return to Sports Participation Following Concussion

Student-Athlete _____ DOB _____

Date of injury _____ Today's Date _____

Sport _____

The above-named student-athlete sustained a concussion. The purpose of this form is to provide initial medical clearance before starting the Gradual Return to Sports Participation Program, as directed by current medical evidence (2010 AAP Sport-Related Concussion in Children and Adolescents, 2008 Zurich Concussion in Sport Group Consensus).

History of Injury

Mechanism of Injury: History of Previous Concussions:

Head to head contact _____ How many previous concussions suffered? _____ Head to ball contact _____

At what age(s) did each previous concussion occur? _____ Head to object contact _____ Date of last concussion? _____

Head to upper body contact _____ Loss of consciousness reported? YES or NO
Head to lower body contact _____ Head to ground contact _____ Initial SCAT3 Score: _____

Notes:

Criteria for Medical Clearance for Gradual Return to play

(Check each) The student-athlete must meet all of these criteria to receive medical clearance.

1. No Symptoms at rest for minimum 24 hours/ no medication use to manage symptoms (e.g., headaches)
2. No return of symptoms with typical physical and cognitive activities of daily living
3. Neurocognitive functioning at typical baseline
4. Normal Balance and coordination
5. No other medical/neurological complaints/findings

Detailed Guidance

To be completed by the student's physician or school athletic trainer (This cannot be a parent or guardian)

1. Symptom checklist: None of these symptoms should be present. Assessment of symptoms should be broader than athlete report alone. Also consider observational reports from parents, teachers, others:

- Physical Cognitive Emotional Sleep
- Headache o Feeling mentally foggy Irritability
- Drowsiness o Nausea/vomiting
- Feeling slowed down
- Sadness
- Sleeping more than usual
- Dizziness
- Difficulty remembering o More emotional
- Sleeping less than usual o Balance problems

- Difficulty concentrating
- Nervousness or Trouble falling asleep
- Visual problems
- Fatigue/tiredness
- Sensitivity to light
- Numbness or tingling

2. Exertion assessment (Check): The student-athlete exhibits no evidence of return of symptoms with:

___ Cognitive activity: concentration on school tasks, home activities (e.g. TV, computer, pleasure reading).

___ Physical activity: walking, climbing stairs, activities of daily living, endurance across the day.

3. Neurocognitive Functioning (Check):

The student-athlete's cognitive functioning has been determined to have returned to its typical pre- injury level by one or more of the following:

___ Reports of appropriate school performance/ home functioning (concentration, memory, speed) in the absence of symptoms listed above.

4. Balance & Coordination Assessment (Check):

The student-athlete is able to successfully perform:

_____ Romberg Test OR SCAT2 (Double leg, single leg, tandem stance, 20 seconds, no deviations from proper stance)

_____ 5 successive Finger-to-Nose repetitions < 4 sec _____

Tandem Walk Time: _____

Reaction time: _____ Eyes: Smooth pursuit y / n

Form 3: PHYSICIAN

Physician Stepwise Progression Information and Orders

After a student-athlete has sustained a concussion they will be started on a supervised Gradual Return to Sports Participation Program only after they have received written medical clearance from the licensed health care provider. Ideally the program will be supervised by the school certified athletic trainer (ATC).

Important Note to Attending Physician: Waynesboro Public Schools, in conjunction with our Certified Athletic Trainer use the following return to play protocols when dealing with head injuries. Please review our protocol and provide any further instructions as you see necessary.

1. Time of Injury - Student-athlete immediately removed from ALL activity.
2. Complete physical and cognitive rest while symptomatic. This may include staying home from school or limiting school hours (and studying) for several days. Activities requiring concentration and attention may worsen symptoms and delay recovery.
3. Student-athlete must have no symptoms (be asymptomatic) for 24 hours before progressing to the **following steps.**

Stepwise progression:

Step 1 – Student-athlete may begin 30 minutes of light exertion cardio activity (ie. aerobic walking or exercise bike riding - no jogging or weight conditioning).

Step 2 – Student-athlete may begin 1 hour of jogging, lightweight training and sports-specific training that do not exceed 50% of full exertion.

Step 3 – Student-athlete may participate in 2 hours of non-contact practice that does not exceed 75% of full exertion.

Step 4 – Full practice participation including full contact and 100% exertion (an individualized session should be devised when the regular team practice plan does not meet this criteria)

Step 5 - Return to full participation (limitations possible).

➤ Athlete must remain asymptomatic to progress to next level ➤ If symptoms recur, stop for 24 hours and student-athlete must return to previous asymptomatic level ➤ Medical evaluation needed if symptoms recur during progression or as directed by attending physician.

Attending Physician – See front of this page for Injury Information (please provide further instructions if needed, and sign)

The above-named student- athlete has met all the above criteria for medical clearance for his/her recent concussion, and as of this date is ready to return to a progressive Gradual Return to Sports Participation Program as above:

Please indicate any further instructions given below.....

Physician Name (PRINT) _____ Phone # _____

Signature of attending Physician: _____ Date: ____/____/____

APPENDIX F: ANNUAL CONCUSSION EDUCATION

****Parents and Student-Athletes:** Please read, sign and keep a copy. You must turn in a signed copy **Prior** to the start of practice.

Waynesboro Public Schools Concussion Information Sheet

A Concussion is a brain injury and all brain injuries are serious. They are caused by a bump, blow, or jolt to the head, or by a blow to another part of the body with the force transmitted to the head. They can range from mild to severe and can disrupt the way the brain normally works. Even though most concussions are mild, all concussions are potentially serious and may result in complications including prolonged brain damage and death if not recognized and managed properly. In other words, even a “ding,” “getting your bell rung,” or a bump on the head can be serious. You can’t see a concussion and most sports concussions occur without loss of consciousness. Signs and symptoms of concussion may show up right after the injury or can take hours or days to fully appear. If your student-athlete reports any symptoms of concussion, or if you notice the symptoms or signs of concussion yourself, seek medical attention right away.

***Signs observed by teammates, parents and coaches include:**

> Appears dazed > Shows behavior or personality changes > Vacant facial expression > Can’t recall events prior to event > Confused about assignment > Can’t recall events after event > Forgets plays > Seizures or convulsions > Is unsure of game, score, or opponent > Any change in typical behavior or personality > Moves clumsily or displays poor coordination > Loses consciousness > Answers questions slowly > Slurred speech

***Symptoms may include one or more of the following:**

> Headaches > “Don’t feel right” > “Pressure in head” > Fatigue or low energy > Nausea or vomiting > Sadness > Neck pain > Nervousness or anxiety > Balance problems or dizziness > Irritability > Blurred, double, or fuzzy vision > More emotional > Sensitivity to light or noise > Confusion > Feeling sluggish or slowed down > Concentration or memory problems > Feeling foggy > Repeating the same question/comment > Drowsiness > Change in sleep patterns > Amnesia

*Adapted from the CDC, AAP and 3rd International Conference on Concussion in Sport

Parent/ Guardian Copy

WPS Concussion Information Sheet

What can happen if my student-athlete keeps on playing with a concussion or returns too soon? Student-athletes with the signs and symptoms of concussions should be removed from play immediately. Continuing to play with the signs and symptoms of a concussion leaves the student-athlete especially vulnerable to greater injury. There is an increased risk of significant damage from a concussion for a period of time after the concussion occurs, particularly if the student-athlete suffers another concussion before completely recovering from the first one. This can lead to prolonged recovery, or even to severe brain swelling (second impact syndrome) with devastating and even fatal consequences. It is well known that adolescent or teenage student-athletes will often under report symptoms of injuries. And concussions are no different. As a result, education of administrators, coaches, parents and student-athletes is the key for the student-athlete's safety.

If you think your student-athlete has suffered a concussion Any student-athlete even suspected of suffering a concussion should be removed from the game or practice immediately. No student-athlete may return to activity after an apparent head injury or concussion, regardless of how mild it seems or how quickly symptoms clear, without medical clearance. Close observation of the student-athlete should continue for several hours. WPS requires the consistent and uniform implementation of well-established "return to play" concussion guidelines that have been recommended for several years:

"A student-athlete who is suspected of sustaining a concussion or head injury in a practice or game shall be removed from competition at that time"

and

"...may not return to play until the student-athlete is evaluated by a licensed health care provider trained in the evaluation and management of concussion and received written clearance to return to play from that health care provider, which will initiate the 'Gradual Return to Sports Participation Program'.

You should also inform your child's coach if you think that your child may have a concussion. Remember... it's better to miss one game than miss the whole season. And..."When in doubt, the athlete sits out."

For current and up-to-date information on concussions you can go to: <http://www.cdc.gov/Concussions>

I have read and understand the Concussion Information Sheet. Further, I understand that Waynesboro Public Schools requires written medical clearance and follows a 5 day step-wise return to play program for any athlete who suffers a concussion. Furthermore, I and my student athlete agree to immediately report suspected concussion to the coach, athletic trainer or administrator.

_____ Student-Athlete Name Printed
Student-Athlete Signature Date

_____ Parent/Legal Guardian Name
Printed Parent/Legal Guardian Signature Date

Adapted from the CDC, AAP and 3rd International Conference on Concussion in Sport

Parent/ Guardian Copy

WPS Concussion Information Sheet

What can happen if my student-athlete keeps on playing with a concussion or returns too soon? Student-athletes with the signs and symptoms of concussions should be removed from play immediately. Continuing to play with the signs and symptoms of a concussion leaves the student-athlete especially vulnerable to greater injury. There is an increased risk of significant damage from a concussion for a period of time after the concussion occurs, particularly if the student-athlete suffers another concussion before completely recovering from the first one. This can lead to prolonged recovery, or even to severe brain swelling (second impact syndrome) with devastating and even fatal consequences. It is well known that adolescent or teenage student-athletes will often under report symptoms of injuries. And concussions are no different. As a result, education of administrators, coaches, parents and student-athletes is the key for the student-athlete's safety.

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For current and up-to-date information on concussions you can go to: <http://www.cdc.gov/Concussions>

I have read and understand the WPS Concussion Information Sheet. Further, I understand that Waynesboro Public Schools requires written medical clearance and follows a 5 day step-wise return to play program for any athlete who suffers a concussion. Furthermore, I and my student athlete agree to immediately report suspected concussion to the coach, athletic trainer or administrator.

_____ Student-Athlete Name Printed
Student-Athlete Signature Date

_____ Parent/Legal Guardian Name
Printed Parent/Legal Guardian Signature Date

Adapted from the CDC, AAP and 3rd International Conference on Concussion in Sport

School Copy

APPENDIX G: CONCUSSION PROCEDURES FOR COACHES

Concussion Procedures for Coaches

RECOGNIZE • REMOVE • REFER

Recognize concussion

All coaches should become familiar with the signs and symptoms of concussion that are described above. Annual training will occur for coaches of every sport.

Remove from activity

Any athlete who exhibits signs, symptoms, or behaviors consistent with a concussion (such as loss of consciousness, headache, dizziness, confusion, or balance problems) shall be immediately removed from participation and shall not return to play until cleared by an appropriate health care professional. Notify the Certified Athletic Trainer immediately.

REMEMBER...When in doubt, sit 'em out

Refer the athlete for medical evaluation

In the absence of the ATC, the supervising coach is responsible for the initial assessment of the athlete, determining if immediate medical referral is needed, and for notifying the athlete's parents of the injury.

Depending on the injury, either an emergency vehicle will transport the athlete or parents will pick the athlete up at the event for transport. A medical evaluation by an ATC, physician, physician's assistant, or nurse practitioner is required to begin the process of "Return to Play".

In the event that an athlete's parents cannot be reached, and the athlete is able to be sent home (rather than directly to MD):

- *The coach should ensure that the athlete will be with a responsible individual, who is capable of monitoring the athlete and understanding the home care instructions, before allowing the athlete to go home.*
- *The coach should continue efforts to reach a parent.*
- *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, adult staff member, or ATC should accompany the athlete and remain with the athlete until a parent arrives.*
- *Athletes with suspected head injuries should not be permitted to drive home.*
- *Coaches should seek assistance from the host site certified athletic trainer (ATC) or team physician, if available at an away contest.*

APPENDIX H. CONCUSSION PROCEDURES FOR TEACHERS AND SCHOOL ADMINISTRATORS

Concussion Procedures for Teachers & School Administrators

Waynesboro Public Schools recognizes that a concussion can affect the student-athlete's ability to function in many activities in the school setting. WPS will assist the student-athlete with his/her academic needs and provide a school care plan when needed for the gradual reintroduction of cognitive demands for student-athletes who have sustained a concussion. Many athletes will report increased symptoms with cognitive activities after a concussion. Refer to Appendix B. Virginia Board of Education 2016 Protocol for Return to Learn.

Athletes with concussions often have difficulty:

- attending school and focusing on schoolwork
- taking tests
- keeping up with assignments, especially in Math, Science, and Foreign Language classes
- reading, even for pleasure

While at home encourage the student to turn off all electronic devices to allow for complete cognitive rest, i.e. television, cell phones, computers, etc.

Decreasing the stress on the brain early on after a concussion may lessen symptoms and shorten the recovery time. To allow for recovery, the American Academy of Pediatrics recommends "cognitive rest". This may include:

- Temporary leave of absence from school
- Taking rest breaks as needed or being excused to the school nurse
- Shortening the athlete's school day
- Reduction of workload in school
- Allowance of more time to complete assignments or take tests
- Avoid taking standardized tests during recovery
- Receiving teacher approved help with schoolwork
- Reduction of time spent on computer, reading, or writing
- Allowing adequate time to make up missed work upon return to school

In cases where these classroom and studying modifications are indicated, the athletic trainer, coach, building administrator, or activities director will have a designated individual (i.e. school nurse or school counselor) send an e-mail to all of the involved student's teachers notifying them of the situation.

References

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Halstead, Mark E. and Kevin D. Walter. "Clinical Report Sport Related Concussion in Children and Adolescents." (online)

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2008" (online) <http://www.sportconcussions.com/html/Zurich%20Statement.pdf>

National Federation of High Schools "Concussions, What You Need to Know" (online)

http://nfhslearn.com/courses/concussion/v1_0/concussion.aspx?lid=238806

Virginia Board of Education Guidelines for Policies on Concussions in Students 2016 pursuant Code of Virginia amendments 22.1-271.5 and 22.1-271.6

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