

Virginia Beach City Public Schools

Protocol and Procedures for
Management of Sports-Related Concussion
(Revised 6-8-2017)

Virginia Beach City Public Schools
Concussion Management Team

Dr. Joel Brenner

Sports Medicine Medical Director
CHKD

Mitch Callis

Sports Medicine/Athletic Trainer Manager
CHKD

Connie Drago

Teacher and Certified Athletic Trainer
Floyd E. Kellam High School

Dr. Nancy Farrell

Principal
First Colonial High School

Martha Mansfield

Teacher and Certified Athletic Trainer
Kempsville High School

Cindy Midkiff

Certified Athletic Trainer
CHKD

John Parkman

Principal
Landstown Middle School

Jim Long

Coordinator of Student Activities
Office of Student Leadership

David Rhodes

Coordinator of Student Activities
Office of Student Leadership

Mary Shaw

Coordinator of School Health Services
Office of Student Leadership

David Siock

Student Activities Coordinator
Landstown High School

Tony Splendore

Teacher and Athletic Coach
Great Neck Middle School

Jonathan White

Teacher and Athletic Coach
Bayside High School

Sherry White

Student Activities Coordinator
Great Neck Middle School

Protocol and Procedures for Management of Sports-Related Concussion

Purpose

In accordance with the Student-Athlete Protection Act, Code of Virginia §22.1-271.5, as amended, and the Virginia Board of Education’s Guidelines for Policies on Concussions in Student-Athletes¹, Virginia Beach City Public Schools (hereinafter “VBCPS”) has established this Protocol and Procedures for Management of Sports-Related Concussion. The goals of the Protocol and Procedures are to ensure that student-athletes who sustain concussions are properly diagnosed, given adequate time to heal, and are comprehensively supported until they are symptom free. Definitions for words and phrases used in the Protocol and Procedures are found in the appendix. There are four main components to the Protocol and Procedures:

- A. Development of Policies and Procedures
- B. Protocol for Return to Play
- C. Helmet Replacement and reconditioning policies and procedures
- D. Training Required for Personnel and Volunteers

VBCPS has established a protocol to provide education about and management of concussion for student-athletes, families, athletic department staff and other school personnel. This Protocol and Procedures outlines the procedures and guidelines for VBCPS staff to follow in managing head concussions, and outlines the schools’ responsibilities as they pertain to return to play issues after concussion.

VBCPS seeks to provide a safe return to activity protocol for all student-athletes after injury, particularly after a concussion. In order to effectively and consistently manage these injuries, procedures have been developed to aid in ensuring that concussed student-athletes are identified, treated and referred appropriately, receive appropriate follow-up medical care during the school day, including academic assistance, and are fully recovered prior to returning to activity.

Central office and school administrators, athletic directors, coaches, school nurses, teachers, parents, student-athletes, certified athletic trainers (ATC)*, neuropsychologists and other health care providers form a team to work together to identify concussions once they occur and to ensure safe return to play. In the Commonwealth of Virginia, a public school student-athlete must be cleared by a Licensed Health Care Provider (LHCP) in order to return to sports and educational activities. An appropriate Licensed Health Care

¹ The Virginia Board of Education Guidelines for Policies on Concussions in Student-Athletes were adopted on January 13, 2011. The VBOE Guidelines are adopted and incorporated into the VBCPS Protocol and Procedures for Management of Sports-Related Concussions.

Provider means “a physician, a physician’s assistant, osteopath or athletic trainer licensed by the Virginia Board of Medicine; a neuropsychologist licensed by the Virginia Board of Psychology; or a nurse practitioner licensed by the Virginia State Board of Nursing.”

In addition to recent research, four (4) primary documents were consulted in developing these Protocol and Procedures. The “Consensus statement on concussions in sport – The 4th international conference on concussion in sports, Zurich, 2012” (referred to as the Zurich Consensus Statement), the National Athletic Trainers’ Association Position Statement: management of sports-related concussion (referred to as the NATA Statement), Halstead, Walter, and the Council on Sports Medicine and Fitness “Sports-related concussion in children and adolescents” (referred to as the AAP Statement), and the Halstead, McAvoy, et al “Returning to Learning Following a Concussion”. Some forms and structural adaptations were adopted with permission from Brenner, J. (2011) Chesapeake Public Schools Sports Concussion Management Plan.²

The Protocol and Procedures will be reviewed annually by the VBCPS Concussion Management Team (herein after “CMT”), and any changes or modifications will be provided to athletic department staff and appropriate VBCPS personnel in writing.

A. Development of Policies and Procedures

1. Verified training of identified personnel. Training will occur, to include:
 - a. Student Activities Coordinators (SACs) – Referral procedures; Return to play (RTP) procedures;
 - b. Athletic Coaches – Recognition of concussion; Referral procedures; RTP procedures;
 - c. Athletic Trainers (ATCs) – Referral procedures; RTP procedures;
 - d. School Nurses – Referral procedures; RTP procedures;
 - e. Physical Education Teachers – Recognition of concussion; Referral procedures; RTP procedures; and
 - f. Guidance Counselors – Referral procedures
2. Education of parents/legal guardians and student-athletes. Annual education for parents/legal guardians and student-athletes will include:
 - a. Video presentations about concussions, the VBCPS concussion protocol, and information about the ImPACT program will be made

² All citations to articles, studies, training materials and forms are subject to change at VBCPS’ discretion.

available at pre-season meetings for parents/legal guardians and student-athletes.

- b. Information packets, which will include written information about concussions (HeadsUp Fact Sheet for Parents, HeadsUp Fact sheet for student-athletes), the VBCPS concussion protocol, and information about ImPACT baseline testing. (ImPACT The best approach to concussion management form);
 - c. Parents/legal guardians or adult students will be required to sign a statement of understanding acknowledging the information presented, consent for ImPACT baseline testing and release of ImPACT testing results to appropriate licensed health care providers. (Forms 1 and 3); and
 - d. Information and supplemental resources will be available online and in writing (resource page).
3. Immediate removal from play. VBCPS guidelines mandate that, if a student-athlete exhibits or reports any sign or symptom of a concussion, he/she will be immediately removed from practice or play and will not return the same day (Current Consensus Statement on Concussions). A parent/legal guardian or emergency contact will be notified on the day of the injury. The parent/legal guardian or the adult student-athlete will be responsible for having the student-athlete obtain a proper medical evaluation by a Licensed Health Care Provider with training in concussion evaluation and management per the VBCPS Protocol and Procedures for Management of Sports-Related Concussion described in Table 1: Activities and Responsibilities for Management of Concussion (Appendix).

VBCPS acknowledges that clearance to return to play is a medical decision. Clearance must be provided by a Licensed Health Care Provider who has evaluated the student-athlete. This will then place the student-athlete in the care of the Certified Athletic Trainer to oversee the Concussion Graduated Return to Play Program found in Table 3 located in the Appendix of this document. The Licensed Health Care Provider cannot be the student-athlete's parent/legal guardian. VBCPS 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, or back to their pre-injury baseline, at rest and during physical and mental exertion, in school full-time without any new academic accommodations (excluding physical education class) and with neurocognitive functioning that has returned to their normal baseline or presumed baseline, as determined by the results from the Immediate Post Concussion Assessment and Cognitive Testing (ImPACT), or other neurocognitive evaluation prior to return to sports training, practice, play, or competition. The student-athlete cannot return to physical education class

until they have completed the Gradual Return to Sports Participation Program. If a Certified Athletic Trainer confirms the athlete has as concussion, it will be treated as such.

4. Written clearance to return to play. It is required that the student-athlete have written clearance by a Licensed Health Care Provider trained in the management of concussion. The written clearance must be received by the Certified Athletic Trainer before the student-athlete is allowed to begin the Gradual Return to Play Program. After being released for participation by a Licensed Health Care Provider, the student-athlete must also be cleared by the school's Certified Athletic Trainer. The student-athlete must pass all stages of the Graduated Return to Play Progression before being allowed to return to play.
5. The Gradual Return to Sports Participation Program will be monitored by the ATC unless the student athlete has completed the program as part of a prescribed physical therapy program. If physical therapy was completed, the final phases of the Gradual Return to Sports Participation will still need to be completed with the ATC.
6. Treatment of the student-athlete in school. Appropriate VBCPS personnel will be trained in concussion management in the academic setting with particular attention to the need for cognitive and physical rest. Appropriate school personnel will be informed of the student-athlete's injury and its specific symptom manifestations- physical, cognitive, emotional, sleep. An individualized plan will be developed and implemented to assist the student-athlete's recovery, providing maximally tolerated academic activities.
7. Management and referral guidelines. VBCPS will utilize the following guidelines for management and referral:
 - a. Student-athlete and parent/legal guardian. In order to participate in any extracurricular athletic activity, VBCPS will require student-athletes and the minor student-athlete's parent/legal guardian to review information on concussions on an annual basis (every twelve months). This information will be provided by VBCPS. After having reviewed the materials describing the short and long term health effects of concussions, each student-athlete and the minor student-athlete's parent/legal guardian shall sign a statement acknowledging receipt, review, and understanding of such information. [Virginia Board of Education VBOE Guideline A2] ((Heads Up Concussion in High School Sports Fact Sheet for Parents, Fact Sheet for Athletes; Concussion in Sports Information Sheet for Parents/Guardians form for sign off)).
 - i. By signing this form the student-athlete and the minor student-athlete's parent/legal guardian will accept the responsibility for reporting the student-athlete's injuries and illnesses to the

- coaching staff, school nurse and school ATC, including signs and symptoms of concussions.
- ii. In order to participate in any extracurricular athletic activity listed below, VBCPS will require the student-athlete to take a baseline neurocognitive test (ImPACT) as early in the season as possible. Any student-athlete who participates in a sport not listed in Table 1 can opt to take a baseline neurocognitive test.
- iii. ImPACT testing will start in 7th grade due to the minimum age of the test.

Table 1 – High Risk Sports for Concussions

FALL	WINTER	SPRING
Cheerleading	Basketball	Baseball
Field Hockey	Diving	Soccer
Football	Gymnastics	Softball
Volleyball	Wrestling	Track - Field Events
	Indoor Track	

Middle School Sports

1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Football	Basketball	Wrestling	Baseball
Soccer		Girls Volleyball	Softball
Cheerleading			Field Hockey
			Track-Long Jump

- b. Coach, Certified Athletic Trainer, Team Physician. A student-athlete suspected by that student-athlete's coach, athletic trainer, school nurse, or team physician of sustaining a concussion or brain injury in a practice or game shall be removed from the activity at that time. A student-athlete who has been removed from play, evaluated by the school Certified Athletic Trainer or school team physician, and suspected to have a concussion or brain injury shall not return to play that same day. The student-athlete's concussion care will follow the VBCPS Protocol and Procedures for Management of Sports-Related Concussions. Any student-athlete suspected of sustaining a concussion by the Coach, Certified Athletic Trainer, team physician, neuropsychologist or school nurse must be treated according to the VBCPS Protocol and Procedures for Management of Sports-Related Concussions (VBOE Guideline A3). A Licensed Health Care Provider evaluating a student-athlete suspected of having a concussion or brain injury may be a volunteer.
- c. Concussion management team. VBCPS has established a concussion management team (CMT) including school administrators, Central Office Administrators, Certified Athletic Trainers, the Coordinator of

Health Services, coaches, and Physicians. The team will review and refine the VBCPS Protocol and Procedures for Management of Sports-Related Concussion on an annual basis (VBOE Guideline A5).

- d. Return to school setting and academics. VBCPS recognizes that a concussion can affect the student-athlete's ability to function in many activities in the school setting. Therefore, VBCPS will assist the student-athlete with his/her academic needs and provide an individualized health care plan (with possible student-support team involvement) for the gradual reintroduction of cognitive demands for student-athletes who have sustained a concussion. (VBOE Guideline A 1).
8. Concussion management and referral procedures for all staff. All VBCPS staff will utilize the following concussion management and referral procedures with student-athletes suspected of having a concussion or brain injury:
 - a. Any student-athlete who has symptoms of a concussion, and who is not stable (i.e., condition is changing or deteriorating), is to be immediately transported to the nearest emergency department via emergency vehicle.
 - b. A student-athlete who exhibits any of the following symptoms should be transported immediately to the nearest emergency department, via emergency vehicle:
 - i. deterioration of neurological function;
 - ii. decreasing level of consciousness;
 - iii. decrease or irregularity in respirations;
 - iv. decrease or irregularity in pulse;
 - v. unequal, dilated, or unreactive pupils;
 - vi. any signs or symptoms of associated injuries, spine or skull fracture, or bleeding;
 - vii. mental status changes: lethargy, confusion or agitation or difficulty maintaining arousal;
 - viii. seizure activity; and/or
 - ix. Cranial nerve deficits.
 - c. A student-athlete who is symptomatic but stable, may be transported by his/her parent/legal guardian or emergency contact. The transporting party should be advised to contact the student-athlete's primary care physician, or seek care at the nearest emergency department, on the day of the injury. **THE OPTION OF EMERGENCY TRANSPORTATION SHOULD ALWAYS BE GIVEN.**

- d. A student-athlete with a suspected head injury **will not** be permitted to drive home.
9. Procedures for Coaches. Coaches will use the “Recognize, Remove, Refer” procedure;
- a. Recognize Concussion. All Coaches must become familiar with the signs and symptoms of concussions. Information sheets will be provided to all coaches for sideline reference (Heads-Up Fact Sheet for Coaches, Concussion Signs and Symptoms palm card and clipboard stickers);
 - b. Remove from activity. Any student-athlete who exhibits signs or symptoms of a concussion **must be removed immediately**, assessed, and **not be allowed** to return to activity that day;
 - c. Refer the athlete for medical evaluation. Coaches must report all head injuries to the Certified Athletic Trainer (ATC), as soon as possible for medical assessment and management, and for coordination of home instructions and follow-up care.
 - i. The Certified Athletic Trainer or Coach in the absence of Certified Athletic Trainer will be responsible for contacting the minor student- athlete’s parent/legal guardian or adult student-athlete’s emergency contact;
 - ii. The Coach must seek assistance from the host site Certified Athletic Trainer;
 - iii. If the Certified Athletic Trainer is unavailable, the Coach is responsible for notifying the minor student-athlete’s parent/legal guardian or the adult student-athlete’s emergency contact and the Student Activities Coordinator of the injury;
 - iv. The Coach must contact the home school’s Certified Athletic Trainer with the student-athlete’s name and home phone number, so that follow-up can be initiated;
 - v. The Coach must remind the adult student-athlete and/or the minor student-athlete’s parent/legal guardian that the student-athlete must report directly to the school nurse on the first day that he/she returns to school after the injury;
 - vi. In the event that a minor student-athlete’s parent/legal guardian or an adult student-athlete’s emergency contact cannot be reached, and the student-athlete is able to be sent home (rather than directly to a physician), the Coach or Certified Athletic Trainer must ensure that the student-athlete will be with a responsible individual, who is capable of monitoring the student-athlete and understanding the home care instructions, before allowing the student-athlete to go home;

- vii. The Coach or Certified Athletic Trainer must continue efforts to reach the parent/legal guardian or emergency contact if the student-athlete leaves with any other person; and
- viii. If there is any question about the status of the student-athlete, or if the student-athlete is not able to be monitored appropriately, the student-athlete must be referred to the emergency department for evaluation. A Coach or Certified Athletic Trainer must accompany the student-athlete and remain with the student-athlete until a parent/legal guardian or emergency contact arrives.

10. Procedures for the Certified Athletic Trainer (ATC). The Certified Athletic Trainer will assess the injury or provide guidance to the Coach if unable to personally attend to the student-athlete.

- a. Immediate referral to the student-athlete's primary care physician or to the hospital will be made when medically appropriate (1-3 above);
- b. The Certified Athletic Trainer will perform serial assessments following recommendations in the NATA Statement, and utilize the SCAT3 (Sport Concussion Assessment Tool), or later version, as recommended by the Zurich Concussion in Sport Group Consensus Statement;
- c. The Certified Athletic Trainer will notify the minor student-athlete's parent/legal guardian or adult student-athlete's emergency contact and give written and verbal home and follow-up care instructions (Form 4).
- d. The Certified Athletic Trainer will notify the school nurse of the injury via email or voicemail, prior to the next school day, so that the school nurse can initiate appropriate follow-up in school immediately upon the student-athlete's return to school;
- e. The Certified Athletic Trainer will continue to provide coordinated care with the school nurse, for the duration of the injury;

B. Protocol for Return to Play.

After the school certified Athletic Trainer evaluates the student-athlete, management will follow four (4) possible pathways depending on the assessment (per 2010 AAP Sport-Related Concussion in Children and Adolescents, 2012 Zurich Concussion in Sport Group Consensus):

1. Immediate referral to emergency department. The Certified Athletic Trainer will contact the minor student-athlete's parent/legal guardian or the adult student-athlete's emergency contact and give him/her the Parent/Guardian Home Instructions (Form 4).

The student-athlete must be seen by and have the Medical Clearance for Gradual Return to Sports Participation Program Form (Form 6) signed by the student-athlete's Primary Care Physician or sports concussion specialist prior to starting a Concussion Graduated Return to Play Program (Table 2). If a student presents with a signed Medical Clearance for Gradual Return to Sports Participation Program (Form 6), it will remain the responsibility of the Certified Athletic Trainer to evaluate the student-athlete prior to beginning a Concussion Graduated Return to Play Program.

2. Referral to Primary Care Physician. The Certified Athletic Trainer will contact the minor student-athlete's parent/legal guardian or the adult student-athlete's emergency contact and give them the Parent/Guardian Home Instruction Sheet (Form 4).

If requested by the Primary Care Physician, a post-injury ImPACT, conducted by the Certified Athletic Trainer, will be offered to the Primary Care Physician as part of the student-athlete's concussion management. (via written and oral communication).

The ImPACT post injury test must be interpreted by the ordering physician prior to starting the Graduated Return to Play Program.

The Gradual Return to Play Program can be started by the ATC if there is a delay in the interpretation of the post-injury ImPACT test by the PCP. However, no contact or collision may occur until the ImPACT test is interpreted.

The student-athlete may begin some exercise prior to clearance if a physician has diagnosed the student-athlete with PCS or deem it medically appropriate. The exercise must be supervised by the ATC to be included in the Gradual Return to Play Program.

The Primary Care Physician can clear the student-athlete for a Concussion Graduated Return to Play Program **OR** refer to a sports concussion specialist.

If the PCP does not request the post-injury ImPACT test:

- a. The post-injury ImPACT test is not performed and the PCP signs off on the clearance to begin the Gradual Return to Play Program (via Form #6)
 - b. The PCP acknowledges that the post-injury ImPACT test was not used in their evaluation (via Form #6)
 - c. The parent acknowledges that the post-injury ImPACT test was not used in the evaluation (via Form #6). The parent has the option to take the student-athlete to a sports concussion specialist.
3. Referral to a sports concussion specialist (sports medicine physician or sports neurologist). The Certified Athletic Trainer will contact the minor student-athlete's parent/legal guardian or the adult student-athlete's emergency contact and give them Parent/Guardian Home Instruction Sheet (Form 4).
- a. If a Post-injury ImPACT test is requested, it will be done by the Certified Athletic Trainer or the physician's office (as directed by the physician). The student-athlete's examination must be back to the pre-injury baseline prior to completing a Concussion Graduated Return to Play Program (Table 3). The physician will interpret the post-injury ImPACT test if it was ordered;
 - b. The physician will clear the student-athlete for a Concussion Graduated Return to Play Program supervised by the Certified Athletic Trainer when medically appropriate and written documentation will be given to the student-athlete's parent/legal guardian, the student-athlete and Certified Athletic Trainer; and
 - c. The student-athlete will begin a Concussion Graduated Return to Play Program (Table 3) supervised by the Certified Athletic Trainer.
 - d. The student-athlete may begin some exercise prior to clearance if a physician has diagnosed them with PCS or deem it medically appropriate. The exercise must be supervised by the ATC to be included in the Gradual Return to Play Program.
4. Managed by Certified Athletic Trainer. The Certified Athletic Trainer can initially manage the concussion if the following criteria are met:
- a. The student-athlete's signs and symptoms are completely absent within fifteen (15) minutes from the time of injury;
 - b. The physical and cognitive examination are normal within fifteen (15) minutes;
 - c. Balance testing is normal within fifteen (15) minutes;

- d. The Certified Athletic Trainer will contact the student-athlete's parent/legal guardian or the adult student-athlete's emergency contact and give that person the Parent-Guardian Home Instruction Sheet (Form 4). If the student-athlete's parent/legal guardian or the adult student-athlete wishes the student-athlete to be evaluated by a physician, then the Certified Athletic Trainer will facilitate one of the processes as set forth above (1-3);
- e. The Certified Athletic Trainer will call the CHKD sports medicine physician on call if there are urgent after-hours concerns at the time of the injury (within the first few hours) to discuss the student-athlete's concussion if needed for consultation.
- f. The Certified Athletic Trainer will monitor the student-athlete's progress with the symptom checklist, physical and cognitive examination, and balance test the day after the injury;
- g. If the student-athlete has any findings consistent with a concussion when the Certified Athletic Trainer re-evaluates the student-athlete the day after the injury the student-athlete will be referred to a physician for further management (1-3). Steps will follow the earlier progression, either through referral to a primary care physician (#2 above) or sports concussion specialist (#3 above).
- h. The ATC's documentation will include:
 - i. SCAT 3 or later version (if ATC was present at the time of injury)
 - i. A detailed summary note, which will include all documentation of the injury in a SOAP format using the CHKD head injury form.
 - ii. Medical clearance for Gradual Return to Sports Participation (Form #6) signed by the ATC.
 - iii. Form #6 signed by the parent
 - iv. SCAT 3, or later version, ATC summary note and medical clearance form will be included in the student-athlete's medical record.
- j. The student-athlete will begin a Gradual Return to Sports Participation Program (Table 3) supervised by the Certified Athletic Trainer. If the student-athlete develops any symptoms during the progression the Certified Athletic Trainer will refer the student-athlete to a physician for further management.
- k. If the parent requests to have a post-injury ImPACT test utilized they will be referred to a physician experienced in its use prior to completing the Gradual Return to Paly Program.

5. Procedures for School Nurse. The responsibilities of the school nurse after notification of a student's concussion, regardless of whether the injury is sustained in a school related sports incident or not, will be as follows:
 - a. Instruct the student to report to the school nurse upon his/her return to school;
 - b. Re-evaluate the student and communicate with the school's Student Activity Coordinator and the Certified Athletic Trainer;
 - c. Provide an individualized health care plan, if appropriate, based on both the student's current condition, and initial injury information provided by the Certified Athletic Trainer, adult student or minor student's parent/legal guardian;
 - d. Notify the student's guidance counselor and teachers of the injury and provide teachers working directly with the student appropriate concussion information.
 - e. Notify the student's Physical Education teacher if applicable, Student Activities Coordinator and Certified Athletic Trainer the first school day following notification of the injury, that the student is restricted from all physical activity until further notice;
 - f. The school nurse will monitor the student on a regular basis during the school day.

6. Responsibilities of the student's guidance counselor. The student's guidance counselor will be responsible for:
 - a. Monitoring the student closely and recommending appropriate academic accommodations for the student if the student is exhibiting symptoms of post-concussion syndrome; and
 - b. Communicating with the school health office on a regular basis to provide the most effective care for the student.

C. Helmet Replacement and reconditioning policies and procedures.

Helmets for VBCPS sports activities will be National Operative Committee on Standards for Athletic Equipment (NPCSAE) certified by the manufacturer at the time of purchase. Reconditioned helmets will be NOCSEA recertified by the recondition.³

D. Training Required for Personnel and Volunteers.

VBCPS will develop training to ensure that VBCPS staff, contractors and volunteers receive annual training on how to recognize the signs and symptoms of a concussion, the strategies to reduce the risk 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 the event or training. All VBCPS staff, contractors and volunteers identified by the CMT for training must participate in the training prior to undertaking participation in sports training or activities. Failure to comply with training requirements may result in disciplinary action up to and including termination. Annual training schedules will be developed by the CMT. Training may be differentiated to meet the responsibilities for each group and may include, but is not limited to, the following groups:

1. Student Activities Coordinators (SACs) – Referral procedures; Return to play (RTP) procedures
2. Athletic Coaches – Recognition of concussion; Referral procedures; RTP procedures
3. Certified Athletic Trainers (ATCs) – Referral procedures; RTP procedures
4. School Nurses – Referral procedures; RTP procedures
5. Physical Education Teachers – Recognition of concussion; Referral procedures; RTP
6. Guidance Counselors – Referral procedures.
7. Teachers
8. Team Physicians

³ Refer to Virginia Board of Education Guidelines, as amended.

Appendix

Definitions

Concussion- is a brain injury that is characterized by an onset of impairment of cognitive and/or physical functioning, and is caused by a blow to the head, face or neck, a blow to the body that causes a sudden jarring of the head (i.e., a helmet to the head, being knocked to the ground). A concussion can occur with or without a loss of consciousness, and proper management is essential to the immediate safety and long-term future of the injured individual. A concussion can be difficult to diagnose, and failing to recognize the signs and symptoms in a timely fashion can have dire consequences.

Most athletes who experience a concussion can recover completely as long as they do not return to play prematurely. The effects of repeated concussions can be cumulative, and after a concussion, there is a period in which the brain is particularly vulnerable to further injury. If an athlete sustains a second concussion during this period, the risk of permanent brain injury increases significantly and the consequences of a seemingly mild second concussion can be very severe, and even result in death (i.e., “second impact syndrome”).

Appropriate licensed health care provider- is a physician, physician assistant, osteopath or athlete trainer licensed by the Virginia Board of Medicine; a neuropsychologist licensed by the Virginia Board of Psychology; or a nurse practitioner licensed by the Virginia State Board of Nursing.

Return to play-means to participate in a non-medically supervised practice or athletic competition.

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Activities and Responsibilities for Management of Concussion (Table 2)
American Sport Education Program: Concussion Recognition and First Aid
HeadsUp Concussion in Youth Sports A Fact Sheet for Coaches
CDC Concussion in Sports Palm Card
HeadsUp Concussion in High School Sports A Fact Sheet for Parents
HeadsUp Concussion in High School Sports A Fact Sheet for Athletes
Concussion in Sports Information Sheet for Parents/Guardians (Form 1)
Parent Statement of Understanding combined with ImPACT consent (Form 3)
Parent/Guardian Home Instructions (Form 4)
Head Injury Assessment Form (Form 5)
Medical Clearance for Gradual Return to Sports Participation Following Concussion Form (Form 6)
Concussion Graduated Return to Play (Table 3)
Individualized Health Care Plans (Form 7)
References

Appendix 1.

Table 2: Activities and Responsibilities for Management of Concussion

Activity	Responsible Party	Timeline	Verification
Preseason			
1. Concussion Program Policies and Procedures	VBCPS Concussion Management Team (CMT)	Prior to start of season	Written policy in Beach District Athletic Manual or Middle School Athletic Manual; Copies provided to all coaching staff, ATC, SAC and building principals
2. Examine/review coaching methods to teach safe technique & skills	VBCPS Administration, athletic director/staff	Prior to start of season	Written policies on coaching methods, techniques and skills; ASEP Coaches Certification
3. Coaching Education and Training (National Federation of High School Sports (NFHS) online video training, Center for Disease Control (CDC) Coach Fact Sheet, clipboard stickers	Coach		Verification of completion provided to administration Verification of understanding of VBCPS policy
4. Develop/provide list of resources for education, consultation and referral	CMT	Preseason	List of resources available in P&P; available to coaches and families
5. School personnel general education and training (CDC Toolkit information sheets),	CMT	Prior to school year	Verification of training via pre-post test Verification of understanding of P&P
6. Student-Athletes receive ImPACT testing	ATC	Prior to first practice after tryouts	Verification of testing provided by ATC, Coach
7. ImPACT baselines are reviewed for validity	ATC	Prior to first competition	Verification of baseline scores

In-Season			
8. Parent/Legal guardian-Athlete Education (video presentation) CDC Parent/Athlete fact Sheet	Parent/legal guardian, student-athlete	Family Meeting after tryouts	Beach District Handbook and Information Sheet for parents/legal guardians
9. On-field observation, removal of suspected concussion (CDC Signs and symptoms clipboard sticker)	Coach/ ATC	Immediate, when first suspected	Injury report form
10. Parent/legal guardian/ student athlete informed of injury, given written instructions for initial action, medical evaluation recommended	Coach, ATC	Day of injury	Parent/legal guardian provided home-care instructions
Post-Injury (Medical, Family, School)			
11. Medical evaluation and management	Licensed Health Care Professional (LHCP) with concussion training	Early post-injury, ongoing to recovery	Medical Documentation
12. School Return: student specific education and training (CDC school toolkit, health care plan, possible student support team)	School nurse, school counselor, Assistant Principal (if applicable), teachers, neuropsychologist	Prior to/at time of return to school	Health care/SST plan received and signed
13. Clearance to begin Gradual Progression	LHCP with concussion training, ATC for PCP	When medically determined to be at their pre-injury baseline(unless the athlete start exercise due to a diagnosis by physician of Post-Concussion Syndrome (PCS) or deemed medically appropriate.	Medical Documentation/ Medical Clearance Form
14. Clearance to return to full competition	LHCP with concussion training	When medically determined to be at their pre-injury baseline with full exertion	Medical documentation on gradual progression form

Table 3. Concussion Graduated Return to Play

When a student-athlete has been evaluated by a Licensed Health Care Provider, Certified Athletic Trainer and/or a physician for a concussion the following graduated functional return to play will be followed. *The return to play progression will not begin until the student-athlete is completely symptom free or at presumed pre-injury baseline.* If a physician has diagnosed the student-athlete with PCS or deems it medically appropriate, they may begin some exercise prior to final medical clearance to complete the Gradual Return to Sports Participation Program. Each stage is a minimum twenty four (24) hour period; therefore the return to play progression will be a minimum of five (5) calendar days.

If the student-athlete experiences any symptoms, at any point during the rehabilitation stages, the progression will stop immediately and the cycle will resume at the previous asymptomatic rehabilitation stage after twenty four (24) hours of rest. If symptoms continue to occur, the student-athlete will be referred back to the physician for a follow up evaluation.

Rehabilitation Stage	Functional Exercise	Objective of Each Stage
Day 1 – No Activity	Physical/Cognitive Rest	Recovery
Day 2 – Light Aerobic Exercise	Walking, Swimming, Bike	Increase Heart Rate
Day 3 – Sport-Specific Exercise	Running Drills, NO Contact	Add Movement
Day 4 – Non-Contact Drills	Complex Drills, Resistance Training	Exercise, Coordination, Cognitive Load
Day 5 – Full Contact	Following Clearance, Normal Training Activities	Restore Confidence, Assess Functional Skills by Coaches
Day 6 – Return to Play	Normal Game Play	

*Adapted from Table 1. Consensus Statement on Concussion in Sport 4th International Conference on Concussion in Sport, Zurich, November 2012

The treatment, management, and return to play determinations will be individualized to each student-athlete and dependent on circumstances of each specific case and injury. IMPACT testing may also be utilized in the return to play determination, treatment and evaluation of concussions.

A safe return to play is the ultimate goal regardless of age and level of play. After being released for participation by a physician, the student-athlete must also be cleared by the school’s Certified Athletic Trainer before engaging in Stage 2 of the return to play progression above. The student-athlete must pass all six stages under the supervision of the Certified Athletic Trainer before being allowed to return to play. The Gradual Return to Sports Participation Program will be monitored by the ATC unless they have completed the program as part of a prescribed physical therapy program. If physical therapy was completed, the final phases of the Gradual Return to Sports Participation will still need to be completed with the ATC before being allowed to return to play.

References

- Brenner, J. (2011). Medical Clearance for Gradual Return to Sports Participation Following Concussion form
- Brenner, J, Callis, M, Martin, W, and Cleavenger, J (2011). Chesapeake Public Schools' Sports Concussion Management Plan
- Children's Hospital of the King's Daughters (2011) Sports Medicine. Head Injury Assessment Form
- Consensus Statement on Concussion in Sport 4th International Conference on Concussion in Sport held in Zurich, 2012.
- Guskiewicz, K, Bruce S, Cantu, R, Ferrara, M, Kelly, J, McCrea, M, Putukian, M, & Valovich McLeod, T (2004). National Athletic Trainers' Association Position Statement: Management of Sport- Related Concussion. *Journal of Athletic Training*; 39(3); 280-297
- Halstead, M. Walters, K, and the American Academy of Pediatrics Council on Sports Medicine and Fitness (2010). Sport-Related Concussion in Children and Adolescents, *Pediatrics*; 126; 597-615. <http://www.pediatrics.org/cgi/content/full/126/3/597>
- Returning to Learning Following a Concussion. Halstead M. McAvoy K. et. Al. and the American Academy of Pediatrics Council on Sports Medicine and Fitness. *Pediatrics 2013*

Resources

For current

CHKD Sports Concussion Program

<http://www.chkdc.org/concussions>

CDC educational material available online at
http://www.cdc.gov/concussion/HeadsUp/high_school.html

Her mother's story "Keeping Quiet Can Keep You Out of the Game... a Mother's Story "
(<http://www.youtube.com/watch?v=uO-ordcPWSU>)

Information on ImPACT is available online at <http://www.impacttest.com>

National Federation of State High School Associations' (NFHS) online education course available at <http://www.nfhslearn.com>

Tracy's story "Keeping Quiet Can Keep You Out of the Game"
(<http://www.youtube.com/watch?v=yIqZDbk3M400>)

Information and various resources may be obtained at
<http://www.vbschools.com>