

Seminole District

Concussion

Management

Policies and Procedures

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Introduction

Pursuant to Senate Bill 652, the 2010 General Assembly amended the *Code of Virginia* to include § 22.1-271.5 directing the Board of Education to develop and distribute to school divisions by July 1, 2011, guidelines for policies dealing with concussions in student-athletes, and requiring each school division to develop policies and procedures regarding the identification and handling of suspected concussions in student-athletes.

The goals of the Student-Athlete Protection Act (SB 652) 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. According to the Consensus Statement on Concussion in Sport (3rd International Conference on Concussion in Sport, Zurich, November 2008), “the cornerstone of concussion management is physical and cognitive rest until symptoms resolve and then a graded program of exertion prior to medical clearance and return to play.”

The Brain Injury Association of Virginia notes that it is important for all education professionals to be aware of the issues surrounding brain injuries and how they can affect the student’s abilities in the educational setting. Resulting impairments can be multifaceted and can include cognitive, behavioral, and/or physical deficits. Impairments can be mild or severe, temporary or permanent, resulting in partial or total loss of function. Because these deficits are so varied and unpredictable, it is difficult to forecast the recovery for a student with a brain injury.

Definitions(s)

A **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, or 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 means a physician, physician assistant, osteopath 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.

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

An Act to amend the Code of Virginia by adding a section numbered [22.1-271.5](#), relating to policies for student-athletes with concussions.

[S 652]

Approved April 11, 2010

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding a section numbered [22.1-271.5](#) as follows:

§ [22.1-271.5](#). *Policies on concussions in student-athletes.*

A. The Board of Education shall develop and distribute to each local school division guidelines on policies to inform and educate coaches, student-athletes, and their parents or guardians of the nature and risk of concussions, criteria for removal from and return to play, and risks of not reporting the injury and continuing to play.

B. Each local school division shall develop policies and procedures regarding the identification and handling of suspected concussions in student-athletes. Such policies shall require:

1. In order to participate in any extracurricular physical activity, each student-athlete and the student-athlete's parent or guardian shall review, on an annual basis, information on concussions provided by the local school division. After having reviewed 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 of such information, in a manner approved by the Board of Education; and

2. A student-athlete suspected by that student-athlete's coach, athletic trainer, 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, and suspected to have a concussion or brain injury shall not return to play that same day nor until (i) evaluated by an appropriate licensed health care provider as determined by the Board of Education and (ii) in receipt of written clearance to return to play from such licensed health care provider.

The licensed health care provider evaluating student-athletes suspected of having a concussion or brain injury may be a volunteer.

C. In addition, local school divisions may provide the guidelines to organizations sponsoring athletic activity for student-athletes on school property. Local school divisions shall not be required to enforce compliance with such policies.

2. That the Board of Education, in developing the policies pursuant to subsection A of § [22.1-271.5](#), shall work with the Virginia High School League, the Department of Health, the Virginia Athletic Trainers Association, representatives of the Children's Hospital of the King's Daughters and the Children's National Medical Center, the Brain Injury Association of Virginia, the American Academy of Pediatrics, the Virginia College of Emergency Physicians and other interested stakeholders.

3. That the policies of the Board of Education developed pursuant to subsection A of § [22.1-271.5](#) shall become effective on July 1, 2011.

Concussion Management Policies and Procedures

- I. In order to participate in any extracurricular athletic activity, all student-athletes and the student-athlete's parent or guardian must review information on concussions provided by _____ (School Name) _____. After reviewing the materials describing the short- and long-term health effects of concussions, each student-athlete and the student-athlete's parent or guardian must sign the Acknowledgement of the Health Effects of Concussion (Attachment 1) which ensures receipt, review, and understanding of the information. This must be performed annually.
- II. _____ (School Name) _____ will develop and implement a concussion management plan (Attachment 2) that outlines the roles of the sports medicine staff (Team Physician, Certified Athletic Trainer, Athletic Director, Physician Assistant, Neurologist).
 - a. Every athlete will have a baseline assessment available to them. The baseline assessment information will be gathered by the use of one or more of the following tools: Sideline Assessment of Concussion (Attachment 3) and/or ImPACT, which is a computerized neurocognitive assessment tool. The same baseline assessment tools will be used post injury. However, these assessments will not be the sole criteria to determine the presence or absence of a concussion. A comprehensive assessment will be performed by the sports medicine staff.
 - b. A student-athlete suspected by a coach, athletic trainer, or team physician of sustaining a concussion or brain injury during a practice or game will be removed from the activity and will not return to play that same day. They must be evaluated by an appropriate licensed health care provider and receive written clearance to return to play from such licensed health care provider (Attachment 4). The licensed health care provider evaluating student-athletes suspected of having a concussion or brain injury may be a volunteer.
 - c. Appropriate licensed health care provider means a physician, physician assistant, osteopath 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.
 - d. No member of _____ (School Name) _____ athletic team may participate in any athletic event or practice the same day he or she has been diagnosed with a concussion or exhibits signs, symptoms or behaviors attributable to a concussion. No member of _____ (School Name) _____ athletic team may return to participation in an athletic event or training on the days after he/she experiences a concussion unless all of the following conditions have been met:
 - i. the student no longer exhibits signs, symptoms or behaviors consistent with a concussion, at rest or with exertion;
 - ii. the student is asymptomatic during, or following periods of supervised exercise that is gradually intensifying (Attachment 5); and
 - iii. the student receives a written medical release (Attachment 4) from a licensed health care provider.
 - e. Written home instructions will be provided and explained to the student-athlete as well as the parent or guardian. (Attachment 6)
 - f. Sports medicine staff members shall be empowered to determine management and return-to-play for all injured student-athletes, as deemed appropriate. Conflicts or concerns will be forwarded to individual schools Athletic Director, Administrator, and/or Team Physician for remediation.

- g. All student-athletes diagnosed with a concussion will be documented by the sports medicine staff. This documentation will include injury evaluation, management, and clearance to return to play.
- III. _____ (School Name) _____ concussion policy team will refine and review local concussion management policies on an annual basis. The team shall consist of at a minimum but not be limited to a school administrator, athletic administrator, appropriate licensed health care provider, coach, parent, and student.
- IV. Helmet replacement and reconditions policies and procedures
- a. Helmets must be National Operating Committee on Standards for Athletic Equipment (NOCSAE) certified by the manufacturer at the time of purchase.
 - b. Reconditioned helmets must be NOCSAE recertified by the reconditioner.
- V. Training required for personnel and volunteers
- a. _____ (School Name) _____ will ensure school staff, coaches, athletic trainers, team physicians, and volunteers receive current training annually on:
 - i. how to recognize the signs and symptoms of a concussion;
 - ii. strategies to reduce the risk of concussions;
 - iii. how to seek proper medical treatment for a person suspected of having a concussion; and
 - iv. when the athlete may safely return to the event or training.
 - b. All coaches will be given a copy of the concussion management plan, a concussion fact sheet, and will view a video on concussions each year.
 - i. (See Attachments 2, 7, 8, 9)
 - ii. Video selection is determined by the _____ (School Name) _____ sports medicine staff.
 - c. The concussion policy management team will ensure training is current and consistent with best practice protocols.
 - d. _____ (School Name) _____ will maintain a tracking system to document compliance with the annual training requirement. This documentation will be maintained by the Athletic Director and/or Athletic Trainer at _____ (School Name) _____
 - e. Annual training on concussion management will use a reputable program such as, but not limited to, the following:
 - i. The Centers for Disease Control's (CDC) tools for youth and high school sports coaches, parents, athletes, and health care professionals provide important information on preventing, recognizing, and responding to a concussion, and are available at http://www.cdc.gov/concussion/HeadsUp/online_training.html.
 - 1. (Attachments 7, 8, 9)
 - ii. The National Federation of State High School Associations' (NFHS) online coach education course – Concussion in Sports – What You Need to Know. This CDC-endorsed program provides a guide to understanding, recognizing and properly managing concussions in high school sports. It is available at www.nfhslearn.com.

Approved by: _____ Superintendent

Date: _____

Approved by: _____ Principal

Date: _____

Approved by: _____ Athletic Director

Date: _____

Approved by: _____ Athletic Trainer

Date: _____

Approved by: _____ Team Physician

Date: _____

Attachment 1

Acknowledgement of the Health Effects of Concussions

Parent/Guardian Acknowledgement

I have received, reviewed and understand the concussion information on the “Heads-Up” handout that was given to me. I promise to seek help from an appropriate licensed healthcare provider if I suspect that my child has sustained a concussion or is showing signs or symptoms of a concussion.

Parent/Guardian Signature

Date

Student-Athlete Acknowledgement

I have received, reviewed and understand the concussion information on the “Heads-Up” handout that was given to me. I will seek help from an appropriate licensed healthcare provider if I suspect that I have sustained a head injury. I will be truthful with my coaches and medical staff when reporting injuries, including head injuries.

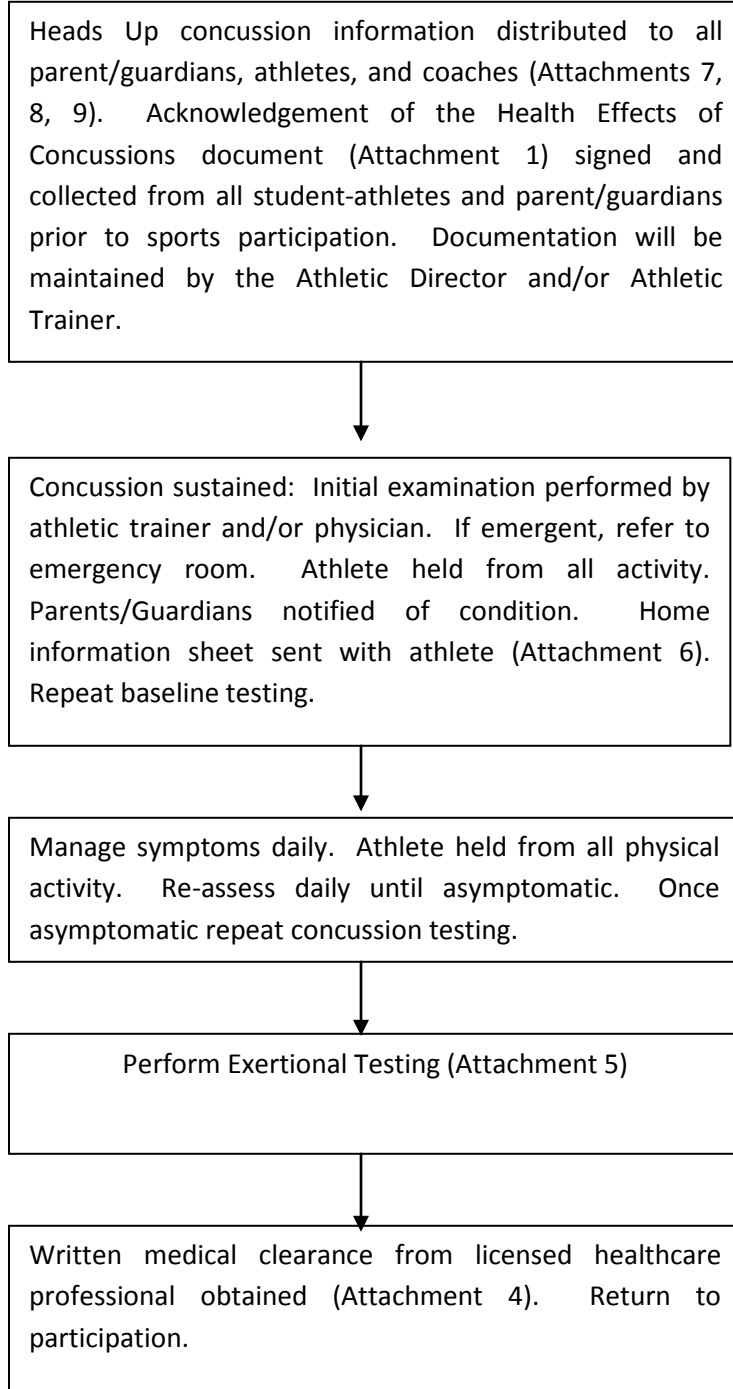
Student-Athlete Signature

Date

Please return this form along with your physical to your Coach, Athletic Trainer, or Administrator. Per the Seminole District Concussion Policy, you will not be able to play until this form and the physical are completed.

Attachment 2

Concussion Management Plan



Attachment 3

I. ORIENTATION

Month of the year	0	1
Date	0	1
Day of the week	0	1
Year	0	1
Time	0	1
Orientation Total Score:	/5	

II. IMMEDIATE MEMORY

All 3 trials are completed regardless of score on trial 1 & 2; score equals sum across all 3 trials			
List	Trial 1	Trial 2	Trial 3
Elbow	0 1	0 1	0 1
Apple	0 1	0 1	0 1
Carpet	0 1	0 1	0 1
Saddle	0 1	0 1	0 1
Bubble	0 1	0 1	0 1
Total Immediate Memory Recall	/15		
<i>Note: Do not inform the subject that delayed recall will be tested</i>			

III. NEUROLOGICAL SCREENING

Recollection of injury (pre- or post-traumatic amnesia):
Strength:
Sensation:
Coordination:

IV. CONCENTRATION

Digits Backwards: If correct, go to the next string length. If incorrect, read the second trial. Stop after incorrect on both trials.		
4-9-3	6-2-9	0 1
3-8-1-4	3-2-7-9	0 1
6-2-9-7-1	1-5-2-8-6	0 1
7-1-8-4-6-2	5-3-9-1-4-8	0 1
Month of the Year in Reverse Order: Athlete must recite entire reverse sequence correctly.		
Dec-Nov-Oct- Sept-Aug-Jul-Jun-May-Apr-Mar-Feb-Jan		0 1
Total Concentration Score:	/5	

V. DELAYED MEMORY RECALL

List	Trial 1
Elbow	0 1
Apple	0 1
Carpet	0 1
Saddle	0 1
Bubble	0 1
Total Delayed Memory Recall	/5

SUMMARY OF TOTAL SCORES

Orientation	/5
Immediate Memory	/15
Concentration	/5
Delayed Memory Recall	/5
Overall Total Score	/30

Attachment 4

Concussion Return to Play Clearance Form

This release is to certify that _____ has been examined
(Student-athlete's name)
due to experiencing the signs, symptoms and behaviors consistent with a concussion.

Following an examination, it is my medical opinion that he/she:

_____ **Is unable to return to any participation in athletics until further notice.**

Return appointment scheduled on the following date _____

_____ **May return to full participation in athletics on** _____
(Date)

The above named student/athlete has met the protocol for return to play as set forth by the Virginia Board of Education Guidelines.

- a. the student no longer exhibits signs, symptoms or behaviors consistent with a concussion, at rest or with exertion;
- b. the student is asymptomatic during, or following periods of supervised exercise that is gradually intensifying; and
- c. the student receives a written medical release from a licensed health care provider.

Appropriate Health Care Provider's Name (Type or print) **Date**
(As defined by the Virginia Board of Education)

Appropriate Health Care Provider's Signature **Phone Number**

Note: Appropriate licensed health care provider means a physician, physician assistant, osteopath 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.

Attachment 5

Exertional Testing Protocol Following Concussion

1. 5-15 minutes of cardiovascular exercise; exercise intensity < 70% maximum predicted heart rate
2. Strength training: (i.e. push-ups, sit-ups, squats thrusts)
3. Advanced cardiovascular training: sprint activities
4. Advanced strength training: weight lifting exercises
5. Sport specific agility drills (no risk of contact)

If there is no change or reoccurrence of symptoms the athlete may progress to a **non-contact practice session**.

The athlete may return to full sport participation once this protocol is completed and they have written medical clearance from a licensed healthcare professional.

This protocol should be completed over the minimum of two (2) days. If at any time symptoms should reoccur, all activity will be stopped and athlete will be re-evaluated and held from activity until asymptomatic.

Attachment 6

Concussion Home Instruction Sheet

The _____ High School sports medicine staff would like to inform you that _____ sustained a concussion during _____ on __/__/__. He/she was evaluated by _____ and will undergo additional concussion testing today/tomorrow. A concussion or mild traumatic brain injury can cause a variety of physical, cognitive, and emotional symptoms. Concussions range in severity from minor to major, but they all temporarily interfere with the way your brain works. It is important to understand that during the next few weeks this athlete may experience one or more of these signs and symptoms.

Headache	Nausea
Balance Problems	Dizziness
Diplopia - Double Vision	Confusion
Photophobia – Light Sensitivity	Difficulty Sleeping
Misophonia – Noise Sensitivity	Blurred Vision
Feeling Sluggish or Groggy	Memory Problems
Difficulty Concentrating	

Following a concussion your brain needs time to heal. **Until you completely recover from your concussion, you will be held out of all athletic activity.** Exercise or activities that involve a lot of concentration, such as studying, working on the computer, or playing video games may cause concussion symptoms (such as headache or tiredness) to reappear or get worse. While your brain is still healing, you are much more likely to have a repeat concussion. In rare cases, repeat concussions can cause permanent brain damage, and even death. Severe brain injury can change your whole life.

WATCH FOR ANY OF THE FOLLOWING PROBLEMS:

Worsening headache	Stumbling/loss of balance
Vomiting	Weakness in one arm/leg
Decreased level of Consciousness	Blurred Vision
Dilated Pupils	Increased irritability
Increased Confusion	

If any of the above symptoms appear or increase, please seek medical attention immediately.

If you have any questions or concerns you may contact your Athletic Trainer, Physician, or nearest hospital.

Athletic Trainer _____ Phone _____

Physician _____ Phone _____

Hospital _____ Phone _____

When your symptoms are completely gone and your concussion testing results have returned to a normal level, you will perform exertional testing under the supervision of your athletic trainer. **Before returning to your sport, you must have written medical clearance from a licensed healthcare professional.**

Daily School Schedule

Name: _____

Grade: _____

Date of Injury: _____

Period	Class	Teacher
1		
2		
3		
4		
5		
6		
7		

Resources

A. Organizations and agencies that provide resources related to concussions

1. American Academy of Pediatrics, <http://www.aap.org>
2. American Medical Society for Sports Medicine, <http://www.amssm.org/>
3. Brain Injury Association of Virginia, <http://www.biav.net>
4. Children's Hospital of the King's Daughters, <http://www.chkd.org>
5. Children's National Medical Center, <http://www.childrensnational.org>
6. Consensus Statement on Concussion in Sport (3rd International Conference on Concussion in Sport, Zurich, November 2008), <http://www.sportconcussions.com/html/Zurich%20Statement.pdf>
7. National Academy of Neuropsychology, <http://www.nanonline.org>
8. Virginia Athletic Trainers' Association, <http://www.vata.us>
9. Virginia College of Emergency Physicians, <https://www.acep.org>
10. Virginia Department of Health, <http://www.vdh.state.va.us>
11. Virginia High School League, <http://www.vhsl.org>

B. Concussion assessment tools

1. Sports Concussion Assessment Tool (SCAT), Concussion in Sport Group, http://www.amssm.org/MemberFiles/SCAT_v13-_Side_2.doc
2. The Sideline Assessment for Concussions, Brain Injury Association of America, http://www.knowconcussion.org/pdfs/sideline_assessment.pdf and <http://www.knowconcussion.org/pdfs/bess.pdf>
3. Sports-Related Concussions in Children and Adolescents, Pediatrics, <http://pediatrics.aappublications.org/cgi/content/abstract/peds.2010-2005v1?rss=1>

C. Educational strategies for working with students who have concussions

1. Brain Injury and the Schools: A Guide for Educators, Brain Injury Association of Virginia, <http://www.biav.net>