



MONTGOMERY COUNTY PUBLIC SCHOOLS (MCPS)

CONCUSSION PLAN

Guidelines and Procedures Regarding Concussions and Head Injuries

MCPS guidelines and procedures for student-athletes who sustain head injuries/concussions conform to recommendations by the Department of Health and Human Services Centers for Disease Control and Prevention (CDC), the National Federation of High Schools (NFHS), the Maryland Public Secondary Schools Athletics Association (MPSSAA), and the Maryland State Department of Education (MSDE). Information and forms referenced in the MCPS Concussion Plan are located under Concussions in the Health and Safety section of the MCPS Athletics web page at the following address: (<http://www.montgomeryschoolsmd.org/departments/athletics>).

The MCPS Concussion Plan includes the following elements:

- A. Education
 - 1. Coaches
 - 2. Student-Athletes/Parents/Guardians
- B. Baseline Testing
- C. Athletic Trainers
- D. Procedures
 - 1. General Procedures
 - 2. Coach Procedures
 - 3. Nurse Procedures
- E. Return-to-Play
- F. Forms and Documents
- G. Limitations on Full Contact

Attachment A: MPSSAA document: *High School Student-Athlete Probable Head Injury Flow Chart*

Attachment B: MSDE document: *Recommendations: Identification of Collision, Contact, and Non-Contact Sports and Recommended Concussion Injury Mitigation and Limitations of Contact Exposure.*

A. Education

- 1. *MCPS coaches will:*
 - a) Review annually the MCPS Concussion Plan.
 - b) Receive training and instruction regarding head injuries in *Care and Prevention of Athletic Injuries*, a course required for coaching certification at Maryland public schools.
 - c) Every two years complete the NFHS Coaches' Education Course: *Concussions in Sports*.
 - d) Review the [Concussions, Baseline Testing and Sudden Cardiac Arrest](#) web page of the MCPS Athletics website.

- e) The MCPS *Concussion Quick Reference Card* should be readily available at practices and contests.
 - f) Receive relevant guidance and information at school and systemwide coaches' meetings.
 - g) Inform parents/guardians and student-athletes of guidelines and procedures regarding concussions.
 - h) Present the *MCPS Student-Athlete Preseason Health and Safety Presentation*, to student-athletes prior to participation in their first athletic contest annually. This presentation includes information on the care and prevention of head injuries and concussions.
2. *Student-athletes and parents/guardians will:*
- a) Review the MCPS *Concussion Plan* during the online registration process for athletics.
 - b) Receive information published by the CDC on symptoms and procedures regarding concussions during the online registration process for athletics.
 - c) Review the additional resources available on the [Concussions, Baseline Testing and Sudden Cardiac Arrest](#) web page of the MCPS Athletics website.
 - d) Complete the following MPSSAA forms during the online registration process for athletics:
 - *Pre-participation Head Injury/Concussion Reporting Form*
 - *Concussion Awareness (Parent/Student-Athlete Acknowledgement Statement)*.
 - e) Receive additional information regarding concussion protocol at the preseason meetings.
 - f) Acknowledge review of the MCPS Concussion Plan in addition to other health and safety-related information made available by the school system, during the online registration process for athletics

B. Baseline Testing

1. All MCPS high school student-athletes are required to complete a baseline test one time, prior to their initial participation in the MCPS interscholastic athletics program.
2. Parents/guardians will receive information describing the MCPS *Baseline Testing Plan* during the online registration process for athletics.
3. Details regarding ImpACT baseline concussion testing are described in the *Baseline Testing Plan* in the *Health and Safety* section of the MCPS Athletics web page.

C. Athletic Trainers

1. Athletic trainers are assigned to all 25 MCPS high schools.
2. Athletic trainers will be available at practices and contests. The “home” team athletic trainer will assist with injuries sustained by both the home and visiting team.
3. Athletic trainers will assist in implementing baseline concussion testing and “gradual return-to-play” protocol after a student-athlete is cleared by to resume participation after a concussion.

D. Procedures

1. *General Procedures*
 - a) Student-athletes who are removed from a practice or contest because they exhibit signs or symptoms consistent with a concussion must have written medical clearance before they may

return to play. The medical clearance shall be indicated on the MPSSAA form titled Medical Clearance for Student-Athlete Suspected Head Injury.

- b) The student-athlete's parents/guardians will be informed that their child may have suffered a concussion and shall be advised to take their child to an authorized health care provider as soon as possible. The parent/guardian will be issued the MPSSAA form *Medical Clearance for Student-Athlete Suspected Head Injury*.
- c) Appropriate school personnel, including administrators, athletics specialist, athletic trainer, and school nurse, will be informed of the injury. Appropriate follow-up will be initiated, including potential academic accommodations.
- d) If the student-athlete suffered a concussion, he/she may begin a supervised gradual return to play process on the date indicated on the form *Medical Clearance for Student-Athlete Suspected Head Injury*.
- e) The student-athlete's gradual return to full activity is supervised by school staff over a five-day period utilizing the MPSSAA form: *Graduated Return to Play Protocol*. Generally, the school athletic trainer will supervise gradual return to play protocol.
- f) The student-athlete may resume full participation after he or she successfully completes a supervised, gradual return-to-play protocol.

2. Coach / Athletic Trainer / Athletics Specialist Procedures

When a student-athlete suffers a potential concussion:

- a) The coach or athletic trainer removes the student-athlete from the practice or contest.
- b) In instances when signs or symptoms indicate that the student-athlete has potentially suffered a concussion, the coach/designee/athletic trainer calls emergency personnel (911) and the student-athlete's parents/guardians. *Emergency Medical Cards* must always be available for this purpose.
- c) In instances where the student-athlete displays only mild signs or symptoms, the coach/designee/athletic trainer calls the parent/guardian, and asks whether the parent/guardian wants to pick up the student-athlete immediately or whether to call 911.
- d) If the parent/guardian cannot be contacted, the coach/designee/athletic trainer calls the emergency contact person designated on the student-athlete's *Emergency Medical Card*.
- e) A coach/designee/athletic trainer should remain with the student-athlete at all times until either a parent/guardian or emergency personnel arrive.
- f) A student-athlete will not be allowed to go home unless accompanied by a parent/guardian or a designee indicated by the parent/guardian.
- g) The coach or athletic trainer gives the parent/guardian the MPSSAA form, *Medical Clearance for Student-Athlete Suspected Head Injury*. This form provides instructions to parents/guardians, including that the parent/guardian or student-athlete must take the form to a licensed health care provider, and bring the completed form to the school nurse as soon as possible after the injury.
- h) The coach follows school protocol in notifying appropriate school staff that a potential concussion (or serious injury) has occurred. At a minimum, the coach notifies the athletics specialist the afternoon or evening after the practice or contest ends when a student-athlete has been removed from participation because of a potential concussion. The athletics specialist then informs the athletic trainer (unless the athletic trainer is already aware).

- i) The coach, with assistance from the athletic trainer, completes and submits a *Student Accident Report* (MCPS Form 525-2) to the athletics specialist the next school day.
- j) The athletics specialist informs the school nurse of the injury on or before the start of the next school day following the injury.
- k) The school nurse follows-up with the student-athlete, and notifies the athletics specialist when the student-athlete may resume participation. The athletics specialist informs the athletic trainer and coach.
- l) The athletics specialist and the athletic trainer retain copies of the completed *Medical Clearance for Student-Athlete Suspected Head Injury* and the athletic trainer enters on the applicable database that a concussion has occurred.
- m) If the injury was a concussion, the coach and athletic trainer initiate procedures described in the form *Graduated Return to Play Protocol*.

3. Nurse Procedures

The school nurse implements follow-up procedures described in the [High School Student-Athlete Probable Head Injury Flow Chart](#). (Attachment A)

- a) These procedures include separate courses of action based on whether the injury occurred during the school day or after school.
- b) These procedures also include separate courses of action based on whether or not the student-athlete has suffered a concussion.
- c) After following the procedures described in the flow chart, the student-athlete may resume a supervised gradual return to play once the nurse returns to the athletics specialist a copy of the medical clearance (*Medical Clearance for Student-Athlete Suspected Head Injury*).

E. Return-to-Play

1. Student-athletes who are removed from a practice or contest because they exhibit signs or symptoms consistent with a concussion must have written medical clearance before they may return to play. The medical clearance shall be indicated on the MPSSAA form titled *Medical Clearance for Student-Athlete Suspected Head Injury*.
 - a) The *Medical Clearance for Student-Athlete Suspected Head Injury* is given to parents/guardians of student-athletes who have potentially suffered a concussion, and includes procedures on how the student-athlete may obtain clearance to resume participation. The form must be completed and signed by a licensed health care provider (LHCP).
 - b) The completed form is returned to the school nurse when the student-athlete returns to school.
 - c) The form includes two separate clearances. If a student-athlete has not suffered a concussion, the LHCP indicates such on the form and there is no need for a follow-up examination.
 - d) If the form indicates that the student-athlete has suffered a concussion, the student-athlete may not resume participation until receiving clearance from a LHCP (indicated in Section 2 of the form).
2. The school nurse informs the athletics specialist when the student-athlete may initiate a gradual return to play program, and provides a copy of the completed form *Medical Clearance for Student-Athlete Suspected Head Injury*. The athletic trainer informs the coach and athletic trainer.
3. The coach or athletic trainer monitors *Gradual Return to Play Protocol* over a five-day period.
4. If the student-athlete remains symptom-free, he or she may return to full participation after the five-day gradual return-to-play period.

5. The school files and retains copies of all of the forms associated with the student-athlete's concussion for a period of five years.

F. Forms and Documents

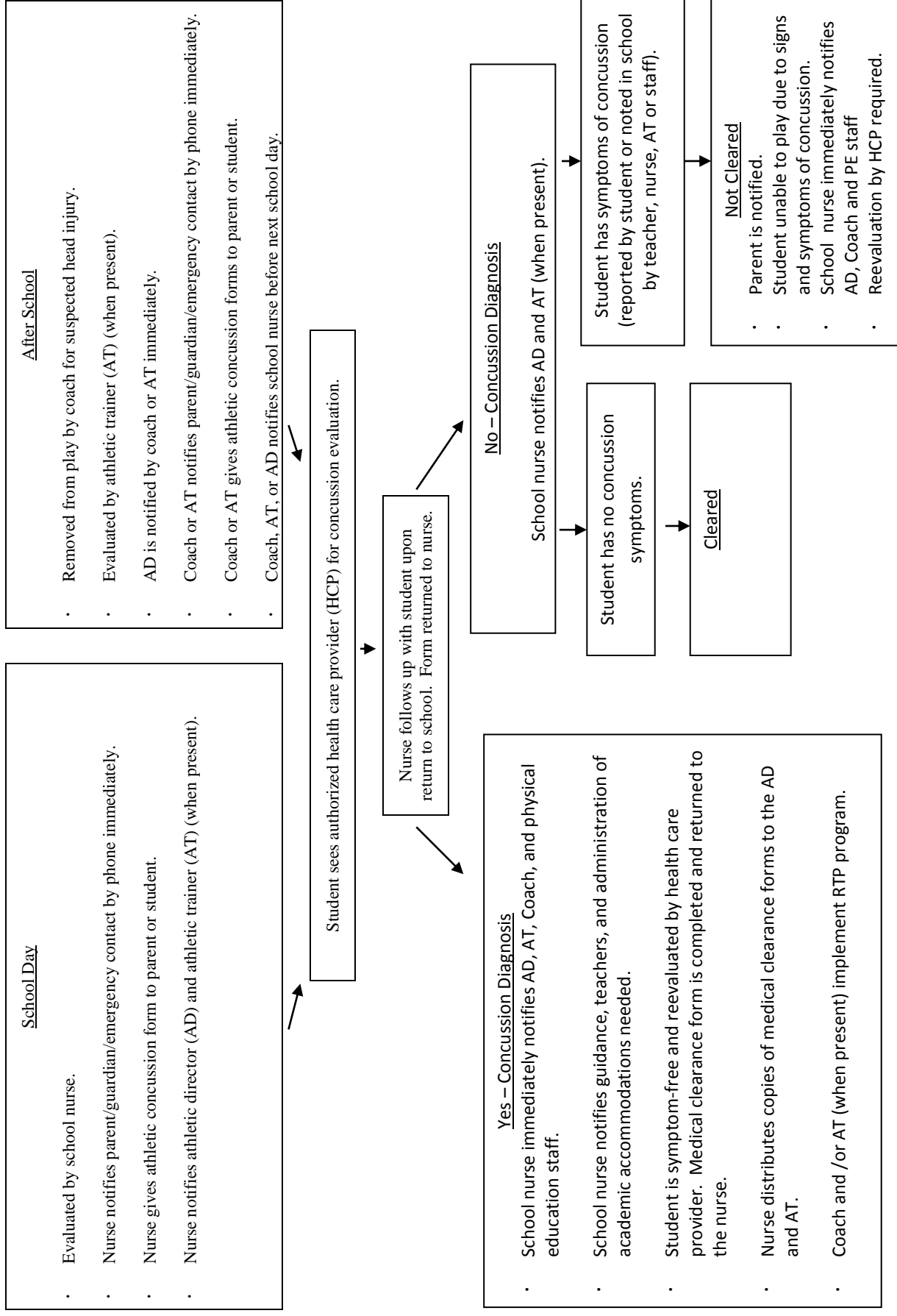
1. *Concussion / Baseline Testing Information for Student-Athletes and Parents/guardians*
 - a) *Concussion Information for Parents*
 - b) *Baseline Testing Information for Parents*
 - c) *Head's Up – A Fact Sheet for Parents*
 - d) *Head's Up – A Fact Sheet for Students*
2. *Concussion / Baseline Testing Forms*
 - a) *Consent Form – ImPACT Baseline Concussion Testing**
 - b) *Pre-Participation Head Injury/Concussion Report Form for Extracurricular Activities**
 - c) *Concussion Awareness (Parent/Student-Athlete Acknowledgement Statement) form**
 - d) *Medical Clearance for Student-Athlete Suspected Head Injury*
 - e) *Graduated Return to Play Protocol*

** Forms completed during the online registration process for athletics.*
3. *Concussion Administrative Information*
 - a) *MCPS Concussion Plan*
 - b) *MCPS Baseline Testing Plan*
 - c) *Concussions in Sports (NFHS online course)*
 - d) *High School Student-Athlete Probable Head Injury Flow Chart (Attachment A)*

G. Limitations on Full Contact

1. The MSDE has categorized sports in one of three categories: collision, contact, and non-contact. In turn, the MSDE has provided recommendations on limiting exposures to head injuries in collision and contact sports, including basketball, field hockey, football, boys' lacrosse, girls' lacrosse, soccer, and wrestling.
2. MCPS coaches of basketball, field hockey, football, boys' lacrosse, girls' lacrosse, soccer, and wrestling will follow MSDE recommendations included in the document *Identification of Collision, Contact, and Non-Contact Sports and Recommended Concussion Injury Mitigation and Limitations of Contact Exposure*. (Attachment B)

High School Student-Athlete Probable Head Injury Flow Chart



**Identification of Collision, Contact and Non Contact Sports and
Recommended Concussion Injury Mitigation and
Limitations of Contact Exposure**

Sport Classification

Collision	Contact	Limited Contact	Non Contact
<i>Consistent with the purpose of the game athletes hit or collide with each other or inanimate objects including the ground with great force.</i>	<i>Athletes routinely make contact with each other or inanimate objects but usually with less force than in collision sports.</i>	<i>Contact with other athletes or inanimate objects are less frequent or inadvertent.</i>	<i>Any contact is inadvertent and not expected.</i>
Football	Basketball	Baseball	Badminton
Ice Hockey	Field Hockey	Field Events: High Jump Pole Vault	Bowling
Boys' Lacrosse	Girls' Lacrosse	Softball	Field Events: Discus Shot Put Triple Jump Long Jump
	Soccer	Volleyball	Golf
	Wrestling		Swimming
			Track & Cross Country
			Tennis

Recommendations for Concussion Injury Mitigation and Reduction of Contact Exposure for Collision Sports

By definition, those activities designated as Collision Sports may incur a high rate of concussion for participating athletes. Research indicates that in addition to proper instruction and drills a reduction of exposure to live contact should contribute to a lower rate of concussion injury.

Football

Rational:

Research has demonstrated the rate of concussion injury in football is the highest in interscholastic sports. The National High School Sports Related Injury Surveillance Study 2011-12 found that head/face concussions accounted for 23.6 % of total injuries. Furthermore, the data details 95% of these injuries occur while blocking, being blocked, tackling or being tackled. Research data by the Ivy League and the NCAA have reported similar findings in the rate on concussions. Currently numerous national and state organizations, as well as three local school systems in the state of Maryland have implemented reductions to contact exposure during practice sessions.

Recommendation:

1. Coaches should place special emphasis during practice sessions on proper techniques for blocking and tackling.

2. The following football practice restrictions are recommended to strike a balance between teaching proper technique and skills while limiting the number of live contact exposures.

Pre-season:

- No live hitting until day 6 of practice (Heat Acclimatization Rules)

- Live hitting (full speed, go to ground contact) periods limited to full padded practice days.

In-season (Beginning the Monday prior to the first play date):

- A team may conduct full padded practice days, but may only participate in live hitting drills and live game simulations with live hitting no more than two practice days per week.

- Live hitting drills or live game simulations with live hitting shall not be conducted the day prior to a game.

Definition:

- Live Hitting is defined as football drills or live game simulations where full game speed blocking and tackling of players to the ground occurs.

- Full Padded is defined as players dressed and equipped in accordance with NFHS Football Rule 1-5 (equipment guidelines).

Boys' Lacrosse

Rational:

Research has demonstrated the rate of concussion injury in boys' lacrosse is among the highest in interscholastic sports. The National High School Sports Related Injury Surveillance Study 2011-12 found that head/face concussions accounted for 34.3 of reported injuries. NCAA data collected from 1988 to 2003 found the concussion injury rate in men's lacrosse to be 2nd only to football. Research by the Ivy League has reported similar corroborative data.

Recommendation:

1. Coaches should place special emphasis during practice sessions on proper techniques for body checking that avoids contact with or to the head.

2. The following boy's lacrosse practice restrictions are recommended to strike a balance between teaching proper technique and skills while limiting the number of live contact exposures.
 - After the 1st play date, schools are limited to a maximum of one full contact practice per day.

 - No live body checking (stick checking permissible) allowed in practice the day prior to a game.

Definition:

- Body Checking is defined as contact typically made with a shoulder or chest to an opponent with both hands of the player applying the check remaining in contact with the crosse.

Recommendations for Concussion Injury Mitigation in Contact Sports

While activities classified as Contact Sports are not specifically structured to provide for intentional physical contact between participants like Collision Sports, the incidence of game/sport related contact between players and/or equipment cannot be totally avoided. Providing athletes with proper instruction and drills emphasizing proper techniques should contribute to a lower rate of concussion injury.

Rational:

Research has demonstrated that the rate of concussion in contact sports indicates the need for special emphasis on specific sports related skills. The National High School Sports Related Injury Surveillance Study 2011-12 indicated skill related activities that led to the highest incidents of head/face concussion injury. The instruction and drill of proper techniques in specific sport segments is essential in order to minimize potential for injury.

Sport Recommendations:

Basketball

- Coaches will place special emphasis on proper techniques on play involving body-to-body contact specifically rebounding, picking, screening and shot blockage.

Field Hockey

- Coaches will place special emphasis on proper techniques on dual challenges specifically where the potential for body-to-body or body-to-stick contact can occur.

Girl's Lacrosse

- Coaches will place special emphasis on proper techniques specifically for player positioning and stick checking.

Soccer

- Coaches will place special emphasis during practice sessions specifically on proper individual heading techniques, heading duals and aerial challenges.

Wrestling

- Coaches will place special emphasis specifically on proper takedown techniques and aspects of competitions involving contact to the head.

References

American Academy of Pediatrics, Committee on Sports Medicine and Fitness. *Medical Conditions Affecting Sports Participation*. Pediatrics (2001), 107(5):1205-1209.

Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. June 2010. *Heads Up Concussion in High School Sports*. Retrieved from http://www.cdc.gov/concussion/HeadsUp/high_school.html.

Comstock, R. Dawn, Collins, Christy L., McIlvain, Natalie M. *High School Sports-Related Injury Surveillance Study (High School RIO). Convenience Sample Summary Report National High School Sports-Related Injury Surveillance Study 2011-2012 School Year*, (2012) pp.1-210.

Howard County Public Schools. 2012. *HCPSS Contact Practice Guidelines for Football*.
NCAA Injury Surveillance Program. 2012. NCAA Sports Injury Facts. Retrieved from <http://datalyscenter.org/resources/sports-injury-facts/>

The Ivy League. July 20, 2011. *Ivy League Presidents Approve Concussion-Curbing Measures for Football*. Retrieved from http://www.ivyleaguesports.com/sports/fball/2011-12/releases/Football_Concussion_Report-July_2011.pdf.

The Ivy League. July 16, 2012. *Ivy League Presidents Approve Concussion Recommendations for Lacrosse and Soccer*. Retrieved from http://www.ivyleaguesports.com/information/general_releases/2012-13/releases/FinalMultiSportReportMedia.pdf.



For official use only:

Name of Athlete _____

Sport/season _____

Date Received _____

Graduated Return to Play Protocol

Description of Stage	Date Completed	Supervised by
<p>STAGE 1: LIGHT AEROBIC ACTIVITY</p> <p><u>Begin stage 1 when:</u> Student is cleared by health care provider and has no symptoms</p> <p><u>Sample activities for stage 1:</u> 20-30 minutes jogging, stationary bike or treadmill</p>		
<p>STAGE 2: HEAVY AEROBIC AND STRENGTH ACTIVITY</p> <p><u>Begin stage 2 when:</u> 24 hours have passed since student began stage 1 AND student has not experienced any return of symptoms in the previous 24 hours</p> <p><u>Sample activities for stage 2:</u> Progressive resistance training workout consisting of all of the following:</p> <ul style="list-style-type: none"> • 4 laps around field or 10 minutes on stationary bike, and • Ten 60 yard sprints, and • 5 sets of 5 reps: Front squats/push-ups/shoulder press, and • 3-5 laps or walking lunges 		
<p>STAGE 3: FUNCTIONAL, INDIVIDUAL SPORT-SPECIFIC DRILLS WITHOUT RISK OF CONTACT</p> <p><u>Begin stage 3 when:</u> 24 hours have passed since student began stage 2 AND student has not experienced any return of symptoms in the previous 24 hours</p> <p><u>Sample activities for stage 3:</u> 30-45 minutes of functional/sport specific drills coordinated by coach or athletic trainer. NOTE: no heading of soccer ball or drills involving blocking sled.</p>		
<p>STAGE 4: NON-CONTACT PRACTICE</p> <p><u>Begin stage 4 when:</u> 24 hours have passed since student began stage 3 AND student has not experienced any return of symptoms in the previous 24 hours</p> <p><u>Sample activities for stage 4:</u> Full participation in team's regular strength and conditioning program. NOTE: no heading of soccer ball or drills involving blocking sled permitted.</p>		
<p>STAGE 5: FULL-CONTACT PRACTICE AND FULL PARTICIPATION IN PHYSICAL EDUCATION</p> <p><u>Begin stage 5 when:</u> 24 hours have passed since student began stage 4 AND student has not experienced any return of symptoms in the previous 24 hours</p> <p><u>Sample activities for stage 5:</u> Unrestricted participation in practices and physical education</p>		
<p>STAGE 6: RETURN TO GAME</p> <p><u>Begin stage 6 when:</u> 24 hours have passed since student began stage 5 AND student has not experienced any return of symptoms in the previous 24 hours</p>		



Name of Athlete: _____
 Sport/season: _____
 Date Received: _____

Medical Clearance for Student-Athlete Suspected Head Injury

Section 1: Initial Observation to be Completed by Coach, Athletic Trainer and/or First Responder

Athlete's Name: _____ DOB: _____ School: _____ Sport: _____

Following the injury, did the athlete experience:	Circle One	Symptoms	Comments
Loss of consciousness or unresponsiveness	Yes / No		
Seizure of convulsive activity	Yes / No		
Balance problems/unsteadiness	Yes / No		
Dizziness	Yes / No		
Headache	Yes / No		
Nausea/Vomiting	Yes / No		
Emotional Instability (abnormal laughing, crying, anger)	Yes / No		
Confusion/Easily distracted	Yes / No		
Sensitivity to Light/noise	Yes / No		
Vision problems?	Yes / No		
Neck pain	Yes / No		

Describe the injury or give additional details: _____

Injury History: Name of Person Completing Form: _____ Relationship: _____
 Date of Injury: _____ Time of Injury: _____ Phone Number: _____

Section 2: To Be Filled Out By a Licensed Health Care Provider (LHCP)

Medical Provider Recommendations According to COMAR 13A.06.08.01, only licensed health care providers (LHCP) trained in the evaluation and management of concussions are permitted to authorize a student athlete to return to play

*This return to play (RTP) plan is based on today's evaluation

LHCP Diagnosis:

- No Concussion – May Return to Full Academic and Physical Activity
 Concussion

PLEASE NOTE THESE REQUIREMENTS TO RETURN TO SPORTS PLEASE COMPLETE

1. Athletes are not allowed to return to practice or play the same day that their head injury occurred
2. Athletes should never return to play or practice if they still have **ANY SYMPTOMS**
3. Athletes, be sure that your coach and/or athletic trainer are aware of your injury, symptoms, and has the contact information for the treating physician

SCHOOL (ACADEMICS) COMPLETED BY LHCP

- May return to school now
 May return to school ___ / ___ / ___
 Out of school until follow up (follow up is scheduled for ___)
 Limitations or Accommodations (please see below or attached)

SPORTS/PHYSICAL ACTIVITIES

- May start return to play progression under the supervision of the health care provider for your school/team
 Must return to medical provider for final clearance to return competition and physical activities

Additional Comments/Instructions: _____

LHCP Name: _____
 Signature: _____
 Date: _____ Phone Number: _____

Office Stamp:



I certify that I am aware of the current medical guidance on concussion evaluation and Management

- All Maryland public school athletes must have a Licensed Health Care Providers signature to return to play
- More than one evaluation is typically necessary for medical clearance for concussion, as symptoms may not fully present for days.

RETURN COMPLETED FORM TO SCHOOL NURSE, ATHLETIC DIRECTOR, AND ATHLETIC TRAINER