Public Schools of North Carolina
State Board of Education
Department of Public Instruction

Report to the North Carolina General Assembly

Study of Sports Injuries at Middle School and High School Levels

SL 2010-152, Section 13.2

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Executive Summary

Session Law 2010-152, Senate Bill 900, directed the NC State Board of Education to study issues related to sports injuries for all sports at middle school and high school levels, focusing on the prevention and treatment of injuries. Working collaboratively with the named entities in House Bill 1837, the SBE collected various reports and documents from the following:

- NC High School Athletic Association (NCHSAA)
  - Athletic Safety Task Force of NCHSAA
  - Sports Medicine Committee of NCHSAA
- NC High School Athletic Trainer's Association
- NC Alliance for Athletics, Health, Physical Education, Recreation and Dance (NCAAHPERD);
  - Athletics Association of NCAAHPERD
  - Sports Management Association of NCAAHPERD.

Data was also gleaned from the extensive National High School Sports-Related Injury Surveillance Study (High School RIO) presented by the Center for Injury Research and Policy conducted in the 2009-2010 School Year. This report can be accessed at http://injuryresearch.net/resources/1/rio/2009-10HighSchoolRIOSummaryReport.pdf.

After careful review and input from numerous and various athletic association resources and experts, the SBE focused its study on the review of the data and recommendations of the 2008 Athletics Safety Task Force in consultation with the Sports Medicine Committee of the NC High School Athletic Association.

The following nine best practices recommendations from the NCHSAA report were submitted. Each of the recommendations is listed below with notes regarding the implementation progress.

Recommendation 1 Certified athletic trainers employed at all schools
In this economic climate, there is reluctance to mandate the hiring of a Certified Athletic Trainer in all high schools. It is estimated that this cost conservatively will be $40,000 salary plus benefits for all high schools. This unfunded mandate is a best practice to work toward. In the interim, high schools that do not employ a full time or part time Certified Athletic Trainer should secure an ATC consultant to work with schools-approved physicians, emergency medical technicians and school administrators to establish an emergency action plan.

Recommendation 2 No return to play on the same day of suspected concussion
This recommendation is currently a requirement for members of the NCHSAA. See Appendix A for definition of a concussion.

Recommendation 3 No return following concussion without release by a physician
These guidelines are currently a requirement for members of the NCHSAA. See Appendix E for guidelines for returning to play upon release by a physician.

Recommendation 4 NC licensed/certified athletic trainer credential on file
This data to be updated by the NCHSAA by 10/10. These credentials are current and are on file with a member of the NC Athletic Trainers Association and the NCHSAA Sports Medicine Committee.

Recommendation 5 Development of an emergency action plan (EAP) at all schools
Every NCHSAA high school member principal must verify that the form is on file when they validate the eligibility of an athlete(s) at the school. See Appendix B for guidelines that have been developed for the required EAP.

Recommendation 6 Verification that all coaches and athletics personnel understand the EAP
This step is a part of the principal's validation process referenced above. It validates that the EAP has been discussed with all appropriate personnel. See Appendix C for annual verification process details.

Recommendation 7 Member schools adopt the American Medical Society for Sports Medicine (AMSSM) pre-participation examination form
The NCHSAA requires an appropriate preparticipation form developed by physicians who are members of the NC Medical Society and the NCHSAA Sports Medicine Committee. See Appendix D for a copy of the preparticipation form.

Recommendation 8 Implement mandatory baseline testing for concussion
Some LEAs have already implemented this baseline testing. This recommendation is encouraged by the NCHSAA member schools to take such steps necessary to have such information as necessary to ensure the safety of their athletes.

Recommendation 9 Mandatory education programs attended by athletics personnel
Such courses are being offered at the Annual Summer NC Coaches' Clinic
and through other professional organizations. The NCHSAA's Sports Medicine Committee. developed a PowerPoint presentation that is required viewing by all athletics personnel in NCHSAA member schools. Principals of these schools validate program participation when they submit their electronic validation of student athlete eligibility.

The full report of the Athletic Safety Task Force of the North Carolina High School Athletic Association (NCHSAA) follows.

Recommendations for Appropriate Medical Coverage for Prevention and Management of Catastrophic Sport-related Injuries in North Carolina High School Athletic Association Member Schools

Athletic Safety Task Force Members:

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Fred Mueller, PhD
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Boone, NC

Gary Merrill
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Introduction:

The recent deaths of at least three North Carolina high school athletes, combined with other catastrophic injuries sustained on our playing fields, have raised questions about the safety of our state's high school athletes. Many people believe that North Carolina has substandard requirements for providing the safest environment for these student athletes, and leaders across the state must recognize the need to act now. Working together, we can take responsible measures to assure appropriate medical coverage and care for our high school athletes. Anything short of this creates the potential for a public health crisis that could be prevented.

The following **recommendations** are presented to the North Carolina High School Athletic Association (NCHSAA) Board of Directors by the Athletics Safety Task Force, in consultation with the NCHSAA's Sports Medicine Committee, the head of the State Board of Education, as well as superintendents, principals, athletic directors, coaches, and certified athletic trainers statewide.

After careful study of the medical care of high school athletes in North Carolina, which included several meetings and conference calls with constituents across the state, the following recommendations were agreed upon by the Athletics Safety Task Force. We anticipate that these recommendations will be supported by the NCHSAA Board of Directors, so that we can move forward in an attempt to improve the safety and well-being of high school athletes across the state.

Recommendation 1: Certified Athletic Trainers Employed at All Schools

Introduce legislation in January 2009 mandating that all NCHSAA high schools employ a full-time NC licensed/certified athletic trainer (ATC) by August 1, 2011. School districts should be required to meet this requirement in at least two-thirds of the district's high schools by August 1, 2010, with all schools meeting the requirement by August 1, 2011. This should be a funded mandate, whereby the State of North Carolina provides each NCHSAA Member School with the necessary funding to hire the appropriate personnel, a full-time ATC.

During the interim, schools not already employing an ATC (full-time or part-time) should at a minimum secure an ATC consultant to work with school approved physicians, emergency medical technicians, and school administrators to establish an emergency action plan (EAP) beginning no later than August 2009.

A "Full-time North Carolina Licensed/Certified Athletic Trainer" shall be defined as:
a) earned and currently holding national certification by the Board of Certification (BOC);
b) currently holding state licensure by the North Carolina Board of Athletic Trainers (NCBATE);
c) in good standing with the NCBATE and the BOC;
d) employed with the primary responsibility of coordinating the school's sports medicine team, and without required teaching duties.

Our research suggests that the starting salary for a full-time high school ATC in North Carolina will be approximately $40,000 depending on education and experience. Our task force

concluded that there will be a sufficient workforce to meet the mandate, given the projected number of graduates from accredited athletic training education programs on the east coast over the next two years. Additionally, we anticipate that some ATCs currently employed in clinics and small colleges will be interested in these positions if they pay at the proposed salary.

Recommendation 2: No Return to Play on the Same Day of a Suspected Concussion

Effective immediately no high school athlete suspected of sustaining a concussion should be permitted to return to a practice, game, or activity involving exertional activity on the same day. The suspected injury should be immediately referred to the school's ATC or physician for evaluation and further referral. See Recommendation 3.
"Concussion" is defined in **Appendix A**.

Recommendation 3: No Return Following Concussion Without Release by a Physician

Effective August 1, 2009, any student-athlete with a suspected concussion should not permitted to return to participation--practice or play--until the student-athlete receives written release from a school approved physician. "Concussion" is defined in **Appendix A**.

A "School Approved Physician" shall be defined as:
a) Board certified, licensed to practice medicine, and in good standing by NC Medical Board.
b) Established competence in assessment, diagnosis, and management of potentially catastrophic sports-related injuries. This will be established by post-graduate (residency and/or fellowship) training and/or specific sideline assessment course completion.

Recommendation 4: NC Licensed/Certified Athletic Trainer Credentials on File

Member schools should submit to the NCHSAA by August 1, 2009 the following:
a) name of their employed ATC, including their NCBATE License #; ***or***
b) name of an ATC consultant, including their NCBATE License #, who has been secured by the school with the purpose of establishing an emergency action plan (EAP) with a school approved physician, local EMTs, and school administrators.

The purpose of indentifying at least an ATC consultant is to begin the process of integrating a certified athletic trainer into the school's administration, and establishing a sports medicine team.

Recommendation 5: Development of an Emergency Action Plan (EAP) at All Schools

Member schools should develop an EAP for handling potentially life-threatening injuries and a referral plan for concussion, cervical spine injuries, and cardiac and heat related illnesses. The emergency action plan developed by all schools should follow the guidelines outlined in **Appendix B**, and should be submitted to the NCHSAA by January 1, 2009.

Recommendation 6: Verification that All Coaches & Athletics Personnel Understand EAP

Member schools should submit verification to the NCHSAA, no later than February 15, 2009, that the action and referral plans have been developed and posted at the school. Verification forms will also include an agreement of understanding signed by coaches, athletic trainers and school administrators with respect to this plan (**Appendix C**).

Recommendation 7: Member Schools Adopt AMSSM Pre-Participation Examination Form

Effective August 1, 2009, member schools should be required to adopt the American Medical Society for Sports Medicine (AMSSM) Pre-participation Physical Examination Form (**Appendix D**). This form should be completed prior to the start of each school year (or at least once every 365 days). This form is completed in-part by the athlete's parent(s) and a physician. Athletes must then submit all documentation to the school's ATC or Athletics Office (until ATC is employed) before being released to participate.

Recommendation 8: Implementation of Mandatory Baseline Testing for Concussion

A mandatory baseline concussion testing program should be instituted in all NCHSAA member schools at minimum for the following sports: Football, Soccer Lacrosse, and Wrestling.

The baseline testing should include the following areas of assessment:
a) Symptomatology – Graded Symptom Checklist (GCS)
b) Standardized Assessment of Concussion (SAC)
c) Computerized Neuropsychological Testing– (i.e., ANAM, CogSport, HeadMinder, ImPACT)
d) Balance Testing – Balance Error Scoring System (BESS)

This testing will be organized by the school's ATC and be conducted before the start of the athletes' freshman season, with follow-up assessment occurring with suspected concussion. The concussion management and return to play criteria in **Appendix E** are recommended. Regional neuropsychologists will be secured to assist the school's approved physician and ATC in interpretation of the neuropsychological test findings.

Recommendation 9: Mandatory Education Programs Attended by Athletics Personnel

A mandatory annual review course concerning athletics safety education and awareness (to be developed) should be completed by all member schools' athletics personnel. The contents of the annual programs will be related to: athletic head/neck injury, cardiac emergencies, heat-related illness, and respiratory (e.g., asthma) emergencies.

This mandatory safety education program will be included with the mandated annual review of the eligibility PowerPoint for coaches and athletic directors. A separate module will be developed for school approved physicians and ATCs which will focus more on the appropriate medical management and return to participation following such conditions.

Appendix A

CONCUSSIONS IN HIGH SCHOOL SPORTS

What is a concussion?

A concussion is a brain injury that:

- ✓ Is caused by a bump, blow, or jolt to the head
- ✓ Can change the way your brain normally works
- ✓ Can range from mild to severe
- ✓ Can occur during practices or games in any sport
- ✓ Can happen even if you haven't been knocked out
- ✓ Can be serious even if you've just been "dinged" or had your "bell rung"

What are the symptoms of a concussion?

Nausea (feeling that you might vomit)
Balance problems or dizziness
Double or fuzzy vision
Sensitivity to light or noise
Headache
Feeling sluggish
Feeling foggy or groggy
Concentration or memory problems (forgetting game plays)
Confusion

While some concussions result in temporary loss of consciousness, most DO NOT.

Source: Department of Health and Human Services; Centers for Disease Control and Prevention

Appendix B

General Guidelines for Developing Emergency Action Plans

1. **Establish Roles** – adapt to specific team/sport/venue, may be best to have more than one person assigned to each role in case of absence/turnover
   - Immediate care of the athlete
     - Typically physician, ATC, first responder but also those trained in basic life support
   - Activation of Emergency Medical System
     - Could be school administrator, anyone
   - Emergency equipment retrieval
     - Could be student assistant, coach, anyone
   - Direction of EMS to scene
     - Could be administrator, coach, student assistant, anyone

2. **Communication**
   - Primary method
     - May be fixed (landline) or mobile (cellular phone, radio)
     - List all key personnel and all phones associated with this person
   - Back-up method
     - Often a landline
   - Test prior to event
     - Cell phone/radio reception can vary, batteries charged, landline working
     - Make sure communication methods are accessible (identify and post location, are there locks or other barriers, change available for pay-phone)
   - Activation of EMS
     - Identify contact numbers (911, ambulance, police, fire, hospital, poison control, suicide hotline)
     - Prepare script (caller name/location/phone number, nature of emergency, number of victims and their condition, what treatment initiated, specific directions to scene)
     - Post both of the above near communication devices, other visible locations in venue, and circulate to appropriate personnel
   - Student emergency information
     - Critical medical information (conditions, medications, allergies)
     - Emergency contact information (parent / guardian)
     - Accessible (keep with athletic trainer for example)

3. **Emergency Equipment**
   - e.g. Automated External Defibrillators, bag-valve mask, spine board, splints
   - Personnel trained in advance on proper use
   - Must be accessible (identify and post location, within acceptable distance for each venue, are there locks or other barriers)
   - Proper condition and maintenance

- document inspection (log book)

4. Emergency Transportation

- Ambulance on site for high risk events (understand there is a difference between basic life support and advanced life support vehicles / personnel)
  - Designated location
  - Clear route for exiting venue
- When ambulance not on site
  - Entrance to venue clearly marked and accessible
  - Identify parking/loading point and confirm area is clear
- Coordinate ahead of time with local emergency medical services

5. Additional considerations

- Must be venue specific (football field, gymnasium, etc)
- Put plan in writing
- Involve all appropriate personnel (administrators, coaches, sports medicine, EMS)
  - Development
  - Approval with signatures
- Post the plan in visible areas of each venue and distribute
- Review plan at least annually
- Rehearse plan at least annually
- Document
  - Events of emergency situation
  - Evaluation of response
  - Rehearsal, training, equipment maintenance

Additional Considerations for Specific Conditions When Developing an EAP

1. Sudden Cardiac Arrest

- Goal of initiating Cardio-Pulmonary Resuscitation within 1 minute of collapse
  - Targeted first responders (e.g. ATC, first responders, coaches) should receive CPR training and maintain certification
- Goal of "shock" from a defibrillator within 3-5 minutes of collapse
  - Consider obtaining Automated External Defibrillator(s)
    - Understand that in most communities the time from EMS activation to shock is 6.1 minutes on average and can be longer in some places
    - Appropriate training, maintenance, and access
    - Notify EMS of AED type, number, and exact location
- Additional equipment to consider beyond AED
  - Barrier shield device/pocket masks for rescue breathing
  - Bag-valve mask
  - Oxygen source
  - Oral and nasopharyngeal airways

2. Heat Illness

- Follow NCHSAA heat and humidity guidelines on p. 50-51 (developed for football but applicable to other sports) http://www.nchsaa.org/intranet/downloadManagerControl.php?mode=getFile&elementID=5876&type=5&atomID=6445
- Inquire about sickle cell trait status on Pre-Participation form
    - consider those with the trait to be "susceptible to heat illness"
    - those with the trait should not be subject to timed workouts
    - those with the trait should be removed from participation immediately if any sign of "exhaustion" or "struggling" is observed
- If heat illness is suspected
    - Activate EMS immediately
    - Begin cooling measures
        - Shade, cool environment
        - Ice water immersion, ice packs, soaked towels, fan and mist
- Any victim of heat illness should see a physician before return to play

3. Head and Neck injury

- Athletic trainer / First responder should be prepared to remove the face-mask from a football helmet in order to access a victim's airway without moving the cervical spine
- Sports medicine team should communicate ahead of time with local EMS
    - Agree upon C-spine immobilization techniques (e.g. leave helmet and shoulder pads on for football players)
    - Type of immobilization equipment available on-site and from EMS
- Athletes and coaches should be trained not to move victims

4. Asthma

- Students with asthma should have an "asthma action plan"
    - Lists medications, describes actions to take based on certain symptoms and/or peak flow values as determined by a licensed physician / PA / NP
    - On file with sports medicine coordinator
    - Available at games / practice / conditioning
    - Can be same as that on file with school nurse (see http://nhlbi.nih.gov/health/prof/lung/asthma/asth_sch.htm or www.aafa.org for examples)
- Students with asthma should have:
    - Rescue inhaler and spacer if prescribed
        - Readily accessible during games / practice /conditioning
        - Athletic trainer / first responder should have an extra inhaler prescribed individually for each student as back-up
        - Before each activity test to be certain it is functional, contains medication, is not expired
    - Pulmonary function measuring device
        - Use in coordination with asthma action plan

5. Anaphylaxis

- Documentation of known anaphylactic allergy to bee stings, foods, medications, etc. should be on file with sports medicine coordinator
    - Describes symptoms that occur
    - What action to take if specific symptoms occur
- Students with known anaphylactic allergy should have
    - Rescue prescription medication (usually an epi-pen)
        - Readily accessible during games / practice /conditioning
        - Athletic trainer / first responder should have an extra supply of the rescue medication prescribed individually for each student as back-up
        - Before each activity examine to be certain it is functional, contains medication, is not expired

6. Lightning

- Assign the role of monitoring for threatening weather conditions
    - Typically athletic trainer, administrator
    - Discuss in advance of games the role of this person (Baseball, softball, football)
- Methods to monitor for lightning risk
    - Consult National Weather Service (http://www.weather.gov/alerts/nc.html) or local media for severe weather watches and warnings
    - Flash-to-bang method
        - Count the time in seconds that passes between a "flash" of lightning and the "bang" of thunder that follows. If count is less than 30 seconds stop activity and seek safe shelter
- Communicate the need to stop activity and seek shelter
    - P.A. announcement
    - Signal sound from a horn, siren, whistle, bell
- Identify safe shelter for each venue and be sure it is accessible (within reasonable distance, unlocked, capacity)
    - Building (with four walls, a ceiling, and plumbing or wiring that acts to electrically ground the structure)
    - Secondary option is a metal roof vehicle with all windows completely rolled up
    - Last option is thick grove of small trees surrounded by larger trees or a dry ditch assuming proper posture (crouch, grab knees, lower head, minimize contact with ground)
- Determine when to resume activity
    - Flash-to bang count greater than 30 seconds or pre-determined time period (usually 30 minutes) after last visible lightning

Appendix C

****THIS IS A REQUIRED FORM****

EMERGENCY ACTION PLAN SUMMRAY FORM

_____ High School
(*Fill in name of high school*)

I hereby certify that:

1) An Emergency Action Plan (EAP) has been developed for the school including all sport venues via the guidelines provided by the NCHSAA.
2) The EAP includes a plan for handling potentially life-threatening injuries and a referral plan for concussion, cervical spine injuries, and cardiac and heat related illnesses.
3) ALL athletic personnel including: coaches, athletic trainers, and school administrators have read the EAP and signed a form stating their understanding; and that all of these signatures are on file in the school's athletic office.

Signed: _____, Principal Date:_____

PLEASE RETURN BY MAIL OR FAX:
NCHSAA
PO BOX 3216
CHAPEL HILL, NC 27515
Fax: 919-962-7812

Appendix D

Preparticipation Physical Evaluation

HISTORY FORM

DATE OF EXAM _____

Name _____ Sex _____ Age _____ Date of birth _____

Grade ___ School _____ Sport(s) _____

Address _____ Phone _____

Personal physician _____

In case of emergency, contact

Name _____ Relationship _____ Phone (H) _____ (W) _____

Explain "Yes" answers below.
Circle questions you don't know the answers to.

	Yes	No
1. Has a doctor ever denied or restricted your participation in sports for any reason?	☐	☐
2. Do you have an ongoing medical condition (like diabetes or asthma)?	☐	☐
3. Are you currently taking any prescription or nonprescription (over-the-counter) medicines or pills?	☐	☐
4. Do you have allergies to medicines, pollens, foods, or stinging insects?	☐	☐
5. Have you ever passed out or nearly passed out DURING exercise?	☐	☐
6. Have you ever passed out or nearly passed out AFTER exercise?	☐	☐
7. Have you ever had discomfort, pain, or pressure in your chest during exercise?	☐	☐
8. Does your heart race or skip beats during exercise?	☐	☐
9. Has a doctor ever told you that you have (check all that apply): ☐ High blood pressure ☐ A heart murmur ☐ High cholesterol ☐ A heart infection		
10. Has a doctor ever ordered a test for your heart? (for example, ECG, echocardiogram)	☐	☐
11. Has anyone in your family died for no apparent reason?	☐	☐
12. Does anyone in your family have a heart problem?	☐	☐
13. Has any family member or relative died of heart problems or of sudden death before age 50?	☐	☐
14. Does anyone in your family have Marfan syndrome?	☐	☐
15. Have you ever spent the night in a hospital?	☐	☐
16. Have you ever had surgery?	☐	☐
17. Have you ever had an injury, like a sprain, muscle or ligament tear or tendinitis, that caused you to miss a practice or game? If yes, circle affected area below:	☐	☐
18. Have you had any broken or fractured bones, or dislocated joints? If yes, circle below:	☐	☐
19. Have you had a bone or joint injury that required x-rays, MRI, CT, surgery, injections, rehabilitation, physical therapy, a brace, a cast, or crutches? If yes, circle below:	☐	☐

Head	Neck	Shoulder	Upper arm	Elbow	Forearm	Hand/ fingers	Chest
Upper back	Lower back	Hip	Thigh	Knee	Calf/shin	Ankle	Foot/toes

20. Have you ever had a stress fracture?	☐	☐
21. Have you been told that you have or have you had an x-ray for atlantoaxial (neck) instability?	☐	☐
22. Do you regularly use a brace or assistive device?	☐	☐
23. Has a doctor ever told you that you have asthma or allergies?	☐	☐
24. Do you cough, wheeze, or have difficulty breathing during or after exercise?	☐	☐
25. Is there anyone in your family who has asthma?	☐	☐
26. Have you ever used an inhaler or taken asthma medicine?	☐	☐
27. Were you born without or are you missing a kidney, an eye, a testicle, or any other organ?	☐	☐
28. Have you had infectious mononucleosis (mono) within the last month?	☐	☐
29. Do you have any rashes, pressure sores, or other skin problems?	☐	☐
30. Have you had a herpes skin infection?	☐	☐
31. Have you ever had a head injury or concussion?	☐	☐
32. Have you been hit in the head and been confused or lost your memory?	☐	☐
33. Have you ever had a seizure?	☐	☐
34. Do you have headaches with exercise?	☐	☐
35. Have you ever had numbness, tingling, or weakness in your arms or legs after being hit or falling?	☐	☐
36. Have you ever been unable to move your arms or legs after being hit or falling?	☐	☐
37. When exercising in the heat, do you have severe muscle cramps or become ill?	☐	☐
38. Has a doctor told you that you or someone in your family has sickle cell trait or sickle cell disease?	☐	☐
39. Have you had any problems with your eyes or vision?	☐	☐
40. Do you wear glasses or contact lenses?	☐	☐
41. Do you wear protective eyewear, such as goggles or a face shield?	☐	☐
42. Are you happy with your weight?	☐	☐
43. Are you trying to gain or lose weight?	☐	☐
44. Has anyone recommended you change your weight or eating habits?	☐	☐
45. Do you limit or carefully control what you eat?	☐	☐
46. Do you have any concerns that you would like to discuss with a doctor?	☐	☐
FEMALES ONLY		
47. Have you ever had a menstrual period?	☐	☐

48. How old were you when you had your first menstrual period? _____
49. How many periods have you had in the last year? _____

Explain "Yes" answers here: _____

I hereby state that, to the best of my knowledge, my answers to the above questions are complete and correct.

Signature of athlete _____ Signature of parent/guardian _____ Date _____

Preparticipation Physical Evaluation

PHYSICAL EXAMINATION FORM

Name _____ **Date of birth** _____

Height _____ **Weight** _____ **% Body fat (optional)** _____ **Pulse**_____ **BP**___/____ (___/___ , ___/___)

Vision R 20/ ____ L 20/ ____ **Corrected:** Y N **Pupils:** Equal ____ Unequal ____

Follow-Up Questions on More Sensitive Issues	Yes	No
1. Do you feel stressed out or under a lot of pressure?	☐	☐
2. Do you ever feel so sad or hopeless that you stop doing some of your usual activities for more than a few days?	☐	☐
3. Do you feel safe?	☐	☐
4. Have you ever tried cigarette smoking, even 1 or 2 puffs? Do you currently smoke?	☐	☐
5. During the past 30 days, did you use chewing tobacco, snuff, or dip?	☐	☐
6. During the past 30 days, have you had at least 1 drink of alcohol?	☐	☐
7. Have you ever taken steroid pills or shots without a doctor's prescription?	☐	☐
8. Have you ever taken any supplements to help you gain or lose weight or improve your performance?	☐	☐
9. Questions from the Youth Risk Behavior Survey (http://www.cdc.gov/HealthyYouth/yrbs/index.htm) on guns, seatbelts, unprotected sex, domestic violence, drugs, etc	☐	☐

Notes: _____

	NORMAL	ABNORMAL FINDINGS	INITIALS*
MEDICAL			
Appearance			
Eyes/ears/nose/throat			
Hearing			
Lymph nodes			
Heart			
Murmurs			
Pulses			
Lungs			
Abdomen			
Genitourinary†			
Skin			
MUSCULOSKELETAL			
Neck			
Back			
Shoulder/arm			
Elbow/forearm			
Wrist/hand/fingers			
Hip/thigh			
Knee			
Leg/ankle			
Foot/toes			

*Multiple-examiner set-up only.
†Having a third party present is recommended for the genitourinary examination.

Notes: _____

Name of physician (print/type)_____ **Date** _____

Address _____ **Phone**_____

Signature of physician_____, **MD or DO**

Preparticipation Physical Evaluation

CLEARANCE FORM

Name _____ Sex _____ Age _____ Date of birth _____

❑ Cleared without restriction

❑ Cleared, with recommendations for further evaluation or treatment for: _____

_____

_____

_____

❑ Not cleared for ❑ All sports ❑ Certain sports: _____ Reason: _____

Recommendations: _____

_____

EMERGENCY INFORMATION

Allergies _____

Other Information _____

IMMUNIZATIONS (eg, tetanus/diphtheria; measles, mumps, rubella; hepatitis A, B; influenza; poliomyelitis; pneumococcal; meningococcal; varicella)

❑ Up to date (see attached documentation) ❑ Not up to date Specify _____

Name of physician (print/type) _____ Date _____

Address _____ Phone _____

Signature of physician _____, MD or DO

Preparticipation Physical Evaluation

CLEARANCE FORM

Name _____ Sex _____ Age _____ Date of birth _____

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Recommendations: _____

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Address _____ Phone _____

Signature of physician _____, MD or DO

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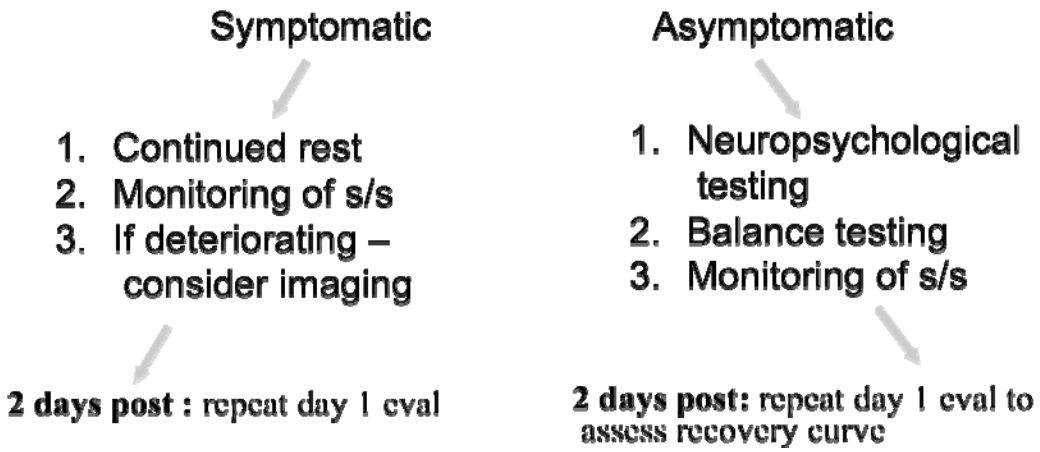
Appendix E

Concussion Evaluation:

****NO HIGH SCHOOL ATHELTE SUSPECTED OF HAVING A CONCUSSION SHOULD BE ALLOWED TO RETURN TO PLAY THE SAME DAY, AND NO ATHLETE SHOULD BE ALLOWED TO RETURN TO PLAY WHILE SYMPTOMATIC FOLLOWING A CONCUSSION****

Time of Injury: clinical evaluation & symptom checklist
1-3 hrs post-injury: symptom checklist; referral if necessary
Next Day: follow-up clinical evaluation & symptom checklist



Return to Play Following Concussion:

Once Asymptomatic:

- Determine where athlete is relative to baseline (neuropsychological tests & BESS)?
- Require another 1 day of rest, followed by a reassessment of symptoms, neuropsychological tests, & balance
- If **asymptomatic for 1 day** at rest & at baseline performance or better on all tests – Conduct exertional tests to assess for increase in signs and symptoms
- If remain asymptomatic for **2 days** after exertional tests, & baseline or better on all tests – Consider return to play
- If athlete becomes symptomatic within 1 day after exertional testing on any date or scores on clinical measures decline – **More rest required**