PREPARTICIPATION PHYSICAL EVALUATION
HISTORY FORM

(Note: This form is to be filled out by the patient and parent prior to seeing the physician. The physician should keep a copy of this form in the chart.)

Date of Exam _____

Name _____ Date of birth _____

Sex _____ Age _____ Grade _____ School _____ Sport(s) _____

Medicines and Allergies: Please list all of the prescription and over-the-counter medicines and supplements (herbal and nutritional) that you are currently taking

_____

_____

_____

Do you have any allergies? ☐ Yes ☐ No If yes, please identify specific allergy below.
☐ Medicines ☐ Pollens ☐ Food ☐ Stinging Insects

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

GENERAL QUESTIONS	Yes	No
1. Has a doctor ever denied or restricted your participation in sports for any reason?		
2. Do you have any ongoing medical conditions? If so, please identify below: ☐ Asthma ☐ Anemia ☐ Diabetes ☐ Infections Other: _____		
3. Have you ever spent the night in the hospital?		
4. Have you ever had surgery?		
HEART HEALTH QUESTIONS ABOUT YOU	**Yes**	**No**
5. Have you ever passed out or nearly passed out DURING or AFTER exercise?		
6. Have you ever had discomfort, pain, tightness, or pressure in your chest during exercise?		
7. Does your heart ever race or skip beats (irregular beats) during exercise?		
8. Has a doctor ever told you that you have any heart problems? If so, check all that apply: ☐ High blood pressure ☐ A heart murmur ☐ High cholesterol ☐ A heart infection ☐ Kawasaki disease Other: _____		
9. Has a doctor ever ordered a test for your heart? (For example, ECG/EKG, echocardiogram)		
10. Do you get lightheaded or feel more short of breath than expected during exercise?		
11. Have you ever had an unexplained seizure?		
12. Do you get more tired or short of breath more quickly than your friends during exercise?		
HEART HEALTH QUESTIONS ABOUT YOUR FAMILY	**Yes**	**No**
13. Has any family member or relative died of heart problems or had an unexpected or unexplained sudden death before age 50 (including drowning, unexplained car accident, or sudden infant death syndrome)?		
14. Does anyone in your family have hypertrophic cardiomyopathy, Marfan syndrome, arrhythmogenic right ventricular cardiomyopathy, long QT syndrome, short QT syndrome, Brugada syndrome, or catecholaminergic polymorphic ventricular tachycardia?		
15. Does anyone in your family have a heart problem, pacemaker, or implanted defibrillator?		
16. Has anyone in your family had unexplained fainting, unexplained seizures, or near drowning?		
BONE AND JOINT QUESTIONS	**Yes**	**No**
17. Have you ever had an injury to a bone, muscle, ligament, or tendon that caused you to miss a practice or a game?		
18. Have you ever had any broken or fractured bones or dislocated joints?		
19. Have you ever had an injury that required x-rays, MRI, CT scan, injections, therapy, a brace, a cast, or crutches?		
20. Have you ever had a stress fracture?		
21. Have you ever been told that you have or have you had an x-ray for neck instability or atlantoaxial instability? (Down syndrome or dwarfism)		
22. Do you regularly use a brace, orthotics, or other assistive device?		
23. Do you have a bone, muscle, or joint injury that bothers you?		
24. Do any of your joints become painful, swollen, feel warm, or look red?		
25. Do you have any history of juvenile arthritis or connective tissue disease?		

MEDICAL QUESTIONS	Yes	No
26. Do you cough, wheeze, or have difficulty breathing during or after exercise?		
27. Have you ever used an inhaler or taken asthma medicine?		
28. Is there anyone in your family who has asthma?		
29. Were you born without or are you missing a kidney, an eye, a testicle (males), your spleen, or any other organ?		
30. Do you have groin pain or a painful bulge or hernia in the groin area?		
31. Have you had infectious mononucleosis (mono) within the last month?		
32. Do you have any rashes, pressure sores, or other skin problems?		
33. Have you had a herpes or MRSA skin infection?		
34. Have you ever had a head injury or concussion?		
35. Have you ever had a hit or blow to the head that caused confusion, prolonged headache, or memory problems?		
36. Do you have a history of seizure disorder?		
37. Do you have headaches with exercise?		
38. Have you ever had numbness, tingling, or weakness in your arms or legs after being hit or falling?		
39. Have you ever been unable to move your arms or legs after being hit or falling?		
40. Have you ever become ill while exercising in the heat?		
41. Do you get frequent muscle cramps when exercising?		
42. Do you or someone in your family have sickle cell trait or disease?		
43. Have you had any problems with your eyes or vision?		
44. Have you had any eye injuries?		
45. Do you wear glasses or contact lenses?		
46. Do you wear protective eyewear, such as goggles or a face shield?		
47. Do you worry about your weight?		
48. Are you trying to or has anyone recommended that you gain or lose weight?		
49. Are you on a special diet or do you avoid certain types of foods?		
50. Have you ever had an eating disorder?		
51. Do you have any concerns that you would like to discuss with a doctor?		
FEMALES ONLY		
52. Have you ever had a menstrual period?		
53. How old were you when you had your first menstrual period?		
54. How many periods have you had in the last 12 months?		

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 _____

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Preparticipation Physical Evaluation
THE ATHLETE WITH SPECIAL NEEDS: SUPPLEMENTAL HISTORY FORM

Date of Exam _____

Name _____ Date of birth _____

Sex _____ Age _____ Grade _____ School _____ Sport(s) _____

1. Type of disability		
2. Date of disability		
3. Classification (if available)		
4. Cause of disability (birth, disease, accident/trauma, other)		
5. List the sports you are interested in playing		
	Yes	**No**
6. Do you regularly use a brace, assistive device, or prosthetic?		
7. Do you use any special brace or assistive device for sports?		
8. Do you have any rashes, pressure sores, or any other skin problems?		
9. Do you have a hearing loss? Do you use a hearing aid?		
10. Do you have a visual impairment?		
11. Do you use any special devices for bowel or bladder function?		
12. Do you have burning or discomfort when urinating?		
13. Have you had autonomic dysreflexia?		
14. Have you ever been diagnosed with a heat-related (hyperthermia) or cold-related (hypothermia) illness?		
15. Do you have muscle spasticity?		
16. Do you have frequent seizures that cannot be controlled by medication?		

Explain "yes" answers here

_____

_____

_____

_____

_____

Please indicate if you have ever had any of the following.

	Yes	**No**
Atlantoaxial instability		
X-ray evaluation for atlantoaxial instability		
Dislocated joints (more than one)		
Easy bleeding		
Enlarged spleen		
Hepatitis		
Osteopenia or osteoporosis		
Difficulty controlling bowel		
Difficulty controlling bladder		
Numbness or tingling in arms or hands		
Numbness or tingling in legs or feet		
Weakness in arms or hands		
Weakness in legs or feet		
Recent change in coordination		
Recent change in ability to walk		
Spina bifida		
Latex allergy		

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 _____

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PREPARTICIPATION PHYSICAL EVALUATION
PHYSICAL EXAMINATION FORM

Name _____ Date of birth _____

PHYSICIAN REMINDERS

1. **Consider additional questions on more sensitive issues**
   - **Do you feel stressed out or under a lot of pressure?**
   - **Do you ever feel sad, hopeless, depressed, or anxious?**
   - **Do you feel safe at your home or residence?**
   - **Have you ever tried cigarettes, chewing tobacco, snuff, or dip?**
   - **During the past 30 days, did you use chewing tobacco, snuff, or dip?**
   - **Do you drink alcohol or use any other drugs?**
   - **Have you ever taken anabolic steroids or used any other performance supplement?**
   - **Have you ever taken any supplements to help you gain or lose weight or improve your performance?**
   - **Do you wear a seat belt, use a helmet, and use condoms?**
2. **Consider reviewing questions on cardiovascular symptoms (questions 5–14).**

EXAMINATION		
Height Weight ☐ Male ☐ Female		
BP / (/) Pulse Vision R 20/ L 20/ Corrected ☐ Y ☐ N		
MEDICAL	**NORMAL**	**ABNORMAL FINDINGS**
Appearance • Marfan stigmata (kyphoscoliosis, high-arched palate, pectus excavatum, arachnodactyly, arm span > height, hyperlaxity, myopia, MVP, aortic insufficiency)		
Eyes/ears/nose/throat • Pupils equal • Hearing		
Lymph nodes		
Heart[a] • Murmurs (auscultation standing, supine, +/- Valsalva) • Location of point of maximal impulse (PMI)		
Pulses • Simultaneous femoral and radial pulses		
Lungs		
Abdomen		
Genitourinary (males only)[b]		
Skin • HSV, lesions suggestive of MRSA, tinea corporis		
Neurologic[c]		
MUSCULOSKELETAL		
Neck		
Back		
Shoulder/arm		
Elbow/forearm		
Wrist/hand/fingers		
Hip/thigh		
Knee		
Leg/ankle		
Foot/toes		
Functional • Duck-walk, single leg hop		

[a]Consider ECG, echocardiogram, and referral to cardiology for abnormal cardiac history or exam.
[b]Consider GU exam if in private setting. Having third party present is recommended.
[c]Consider cognitive evaluation or baseline neuropsychiatric testing if a history of significant concussion.

☐ Cleared for all sports without restriction

☐ Cleared for all sports without restriction with recommendations for further evaluation or treatment for _____

_____

☐ Not cleared

- ☐ Pending further evaluation
- ☐ For any sports
- ☐ For certain sports _____

Reason _____

Recommendations _____

_____

I have examined the above-named student and completed the preparticipation physical evaluation. The athlete does not present apparent clinical contraindications to practice and participate in the sport(s) as outlined above. A copy of the physical exam is on record in my office and can be made available to the school at the request of the parents. If conditions arise after the athlete has been cleared for participation, a physician may rescind the clearance until the problem is resolved and the potential consequences are completely explained to the athlete (and parents/guardians).

Name of physician, advanced practice nurse (APN), physician assistant (PA) (print/type)_____ Date _____

Address _____ Phone _____

Signature of physician, APN, PA _____

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PREPARTICIPATION PHYSICAL EVALUATION
CLEARANCE FORM

Name _____ Sex ☐ M ☐ F Age _____ Date of birth _____

☐ Cleared for all sports without restriction

☐ Cleared for all sports without restriction with recommendations for further evaluation or treatment for _____

_____

☐ Not cleared

- ☐ Pending further evaluation
- ☐ For any sports
- ☐ For certain sports _____

  Reason _____

Recommendations _____

_____

_____

_____

_____

_____

EMERGENCY INFORMATION

Allergies _____

_____

_____

_____

_____

_____

Other information _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

I have examined the above-named student and completed the preparticipation physical evaluation. The athlete does not present apparent clinical contraindications to practice and participate in the sport(s) as outlined above. A copy of the physical exam is on record in my office and can be made available to the school at the request of the parents. If conditions arise after the athlete has been cleared for participation, the physician may rescind the clearance until the problem is resolved and the potential consequences are completely explained to the athlete (and parents/guardians).

Name of physician, advanced practice nurse (APN), physician assistant (PA) _____ Date _____

Address _____ Phone _____

Signature of physician, APN, PA _____

Completed Cardiac Assessment Professional Development Module

Date_____ Signature_____

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Sports-Related Concussion and Head Injury Fact Sheet and Parent/Guardian Acknowledgement Form

A concussion is a brain injury that can be caused by a blow to the head or body that disrupts normal functioning of the brain. Concussions are a type of Traumatic Brain Injury (TBI), which can range from mild to severe and can disrupt the way the brain normally functions. Concussions can cause significant and sustained neuropsychological impairment affecting problem solving, planning, memory, attention, concentration, and behavior.

The Centers for Disease Control and Prevention estimates that 300,000 concussions are sustained during sports related activities nationwide, and more than 62,000 concussions are sustained each year in high school contact sports. Second-impact syndrome occurs when a person sustains a second concussion while still experiencing symptoms of a previous concussion. It can lead to severe impairment and even death of the victim.

Legislation (P.L. 2010, Chapter 94) signed on December 7, 2010, mandated measures to be taken in order to ensure the safety of K-12 student-athletes involved in interscholastic sports in New Jersey. It is imperative that athletes, coaches, and parent/guardians are educated about the nature and treatment of sports related concussions and other head injuries. The legislation states that:

- All Coaches, Athletic Trainers, School Nurses, and School/Team Physicians shall complete an Interscholastic Head Injury Safety Training Program by the 2011-2012 school year.
- All school districts, charter, and non-public schools that participate in interscholastic sports will distribute annually this educational fact to all student athletes and obtain a signed acknowledgement from each parent/guardian and student-athlete.
- Each school district, charter, and non-public school shall develop a written policy describing the prevention and treatment of sports-related concussion and other head injuries sustained by interscholastic student-athletes.
- Any student-athlete who participates in an interscholastic sports program and is suspected of sustaining a concussion will be immediately removed from competition or practice. The student-athlete will not be allowed to return to competition or practice until he/she has written clearance from a physician trained in concussion treatment and has completed his/her district's graduated return-to-play protocol.

Quick Facts

- Most concussions do not involve loss of consciousness
- You can sustain a concussion even if you do not hit your head
- A blow elsewhere on the body can transmit an "impulsive" force to the brain and cause a concussion

Signs of Concussions (Observed by Coach, Athletic Trainer, Parent/Guardian)

- Appears dazed or stunned
- Forgets plays or demonstrates short term memory difficulties (e.g. unsure of game, opponent)
- Exhibits difficulties with balance, coordination, concentration, and attention
- Answers questions slowly or inaccurately
- Demonstrates behavior or personality changes
- Is unable to recall events prior to or after the hit or fall

Symptoms of Concussion (Reported by Student-Athlete)

- Headache
- Nausea/vomiting
- Balance problems or dizziness
- Double vision or changes in vision
- Sensitivity to light/sound
- Feeling of sluggishness or fogginess
- Difficulty with concentration, short term memory, and/or confusion

What Should a Student-Athlete do if they think they have a concussion?

- **Don't hide it**. Tell your Athletic Trainer, Coach, School Nurse, or Parent/Guardian.
- **Report it**. Don't return to competition or practice with symptoms of a concussion or head injury. The sooner you report it, the sooner you may return-to-play.
- **Take time to recover**. If you have a concussion your brain needs time to heal. While your brain is healing you are much more likely to sustain a second concussion. Repeat concussions can cause permanent brain injury.

What can happen if a student-athlete continues to play with a concussion or returns to play to soon?

- Continuing to play with the signs and symptoms of a concussion leaves the student-athlete vulnerable to second impact syndrome.
- Second impact syndrome is when a student-athlete sustains a second concussion while still having symptoms from a previous concussion or head injury.
- Second impact syndrome can lead to severe impairment and even death in extreme cases.

Should there be any temporary academic accommodations made for Student-Athletes who have suffered a concussion?

- To recover cognitive rest is just as important as physical rest. Reading, texting, testing-even watching movies can slow down a student-athletes recovery.
- Stay home from school with minimal mental and social stimulation until all symptoms have resolved.
- Students may need to take rest breaks, spend fewer hours at school, be given extra time to complete assignments, as well as being offered other instructional strategies and classroom accommodations.

Student-Athletes who have sustained a concussion should complete a graduated return-to-play before they may resume competition or practice, according to the following protocol:

- **Step 1**: Completion of a full day of normal cognitive activities (school day, studying for tests, watching practice, interacting with peers) without reemergence of any signs or symptoms. If no return of symptoms, next day advance.
- **Step 2:** Light Aerobic exercise, which includes walking, swimming, and stationary cycling, keeping the intensity below 70% maximum heart rate. No resistance training. The objective of this step is increased heart rate.
- **Step 3:** Sport-specific exercise including skating, and/or running: no head impact activities. The objective of this step is to add movement.
- **Step 4:** Non contact training drills (e.g. passing drills). Student-athlete may initiate resistance training.
- **Step 5:** Following medical clearance (consultation between school health care personnel and student-athlete's physician), participation in normal training activities. The objective of this step is to restore confidence and assess functional skills by coaching and medical staff.
- **Step 6:** Return to play involving normal exertion or game activity.

For further information on Sports-Related Concussions and other Head Injuries, please visit:

www.cdc.gov/concussion/sports/index.html www.nfhs.com
www.ncaa.org/health-safety www.bianj.org www.atsnj.org

_____	_____	_____
Signature of Student-Athlete	Print Student-Athlete's Name	Date
_____	_____	_____
Signature of Parent/Guardian	Print Parent/Guardian's Name	Date

Model Policy and Guidance for
Prevention and Treatment of Sports-Related Concussions and Head Injuries

Introduction

This document is designed to provide guidance to local district boards of education in the development, establishment, and implementation of policies, procedures and programs for the prevention, treatment, and education of Sports- Related Concussions and Head Injuries.

Part I
Background

Legislation (P.L. 2010, Chapter 94) *(N.J.S.A.* 18A:40-41.3) enacted on December 7th, 2010 requires each school district, charter , and non-public school that participates in interscholastic athletics to adopt by September 1, 2011, a policy concerning the prevention and treatment of sports- related concussions and other head injuries among student- athletes. The Center for Disease Control estimates that 300,000 concussions are sustained during sports- related activity in the United States. A concussion is a traumatic brain injury (TBI) caused by a direct or indirect blow to the head or body. In order to ensure the safety of student-athletes, it is imperative that athletes, coaches, and parents/guardians are educated about the nature and treatment of sports- related concussions and head injuries. Allowing a student-athlete to return to play before recovering from a concussion increases the chance of a more serious brain injury that can result in severe disability and/or death.

To assist each district board of education, board of trustees, and non-public school in developing its sports-related concussion and head injuries policy, the legislation required the Commissioner of Education to issue a model policy applicable to grades kindergarten through twelve (K-12), by March 31, 2011. This document includes appropriate references to statutes, regulations and emergent information on sports-related concussions and head injuries.

Part II
Guidance For Local Policy Development

Policy Context

The New Jersey Department of Education (NJDOE) recognizes that the decisions made on the policy governing the care of student-athletes who have sustained sports-related concussions and head injuries is dependent on the individual characteristics in each school district, charter, and non-public school. Each district board of education, charter, and non-public school policy, however, must comply with the

minimum requirements stated in *N.J.S.A.* 18A: 40-41.4 in regards to the care and treatment of a student-athlete who is suspected of sustaining a sports-related concussion or head injury.

Local Policy Development

The following descriptions of applicable regulations make it clear that the **content and format of local policies and procedures must be developed locally:**

- Each district board of education, board of trustees, and non-public school will adopt an Interscholastic Head Injury Training program to be completed by the School/Team Physician, Licensed Athletic Trainer, Coaches, School Nurses, and other appropriate district personnel pursuant to *N.J.S.A.* 18A:40-41.2
- Each district board of education, board of trustees, and non-public school must develop its written policy concerning the prevention and treatment of sports-related concussions and head injuries in accordance with *N.J.S.A.* 18 A:40-41.3.
- Each district board of education, board of trustees, and non-public school must review their sports-related concussion and head injury policy annually , and update as necessary, to ensure that it reflects the most current information available on the prevention, risk, and treatment of sports related concussions and head injuries pursuant to *N.J.S.A.* 18A:40-41.3.

Requirements for Policy Contents

Each district board of education, board of trustees, and non-public school has local control over the content of the Sports-Related Concussion and Head Injury Policy, except that the policy must contain, at a minimum, the following components:

- 18A:40-41.4- Removal of student-athlete from competition, practice; return.
  A student who participates in interscholastic athletics and who sustains or is suspected of sustaining a concussion or other head injury shall be immediately removed from practice or competition. The student-athlete may not return to play until he/she has obtained medical clearance in compliance with local school district return-to-play policy.
- All Coaches, School Nurses, School/ Team Physicians and Licensed Athletic Trainers must complete an Interscholastic Head Injury Training Program.
- The Athletic Head Injury training program must include, but not be limited to:
  1. The recognition of the symptoms of head and neck injuries, concussions, risk of secondary injury, including the risk of second impact syndrome; and
  2. Description of the appropriate criteria to delay the return to sports competition or practice of a student –athlete who has sustained a concussion or other head injury.
- An Athletic Head Injury Training program such as the National Federation of State High Schools Association online "Concussion in Sports" training program or a comparable program that meets mandated criteria shall be completed by the above named staff or others named by local district/school policy. Additional head injury training programs that meet the mandated criteria may be completed by professionals of different levels of medical knowledge and training. Guidance for these additional training programs will be provided to each school district, charter and non-public school by the NJDOE.
- Distribution of NJ Department of Education Concussion and Head Injury fact sheet to every student-athlete who participates in interscholastic sports. Each school district, charter or non public school,

that participates in interscholastic sports shall obtain a signed acknowledgement of the receipt of the fact sheet by the student-athlete's parent/ guardian and keep on file for future reference.

Model Concussion Protocol for the Prevention and Treatment of Sports-Related Concussions and Head Injuries

Prevention

1. Pre-season baseline testing.
2. Review of educational information for student-athletes on prevention of concussions.
3. Reinforcement of the importance of early identification and treatment of concussions to improve recovery.

- Student-athletes who are exhibiting the signs or symptoms of a sports-related concussion or other head injuries during practice or competition shall be immediately removed from play and may not return to play that day.

Possible Signs of Concussion:

(Could be observed by Coaches, Licensed Athletic Trainer, School/Team Physician, School Nurse)

1. Appears dazed, stunned, or disoriented.
2. Forgets plays, or demonstrates short term memory difficulty.
3. Exhibits difficulties with balance or coordination.
4. Answers questions slowly or inaccurately.
5. Loses consciousness.

Possible Symptoms of Concussion

(Reported by the student athlete to Coaches, Licensed Athletic Trainer, School/ Team Physician, School Nurse, Parent/ Guardian)

1. Headache
2. Nausea/Vomiting
3. Balance problems or dizziness.
4. Double vision or changes in vision.
5. Sensitivity to light or sound/noise.
6. Feeling sluggish or foggy.
7. Difficulty with concentration and short term memory.
8. Sleep disturbance.
9. Irritability

- Student-Athletes must be evaluated by a physician or licensed health care provider trained in the evaluation and management of concussion to determine the presence or absence of a sports-related concussion or head injuries.
- To return to practice and competition the student-athlete must follow the protocol:
    1. Immediate removal from competition or practice. 911 should be called if there is a deterioration of symptoms, loss of consciousness, or direct neck pain associated with the injury.
    2. When available the student-athlete should be evaluated by the school's licensed healthcare provider who is trained in the evaluation and management of concussions.

3. School personnel (Athletic Director/Building Administrator, Licensed Athletic Trainer, School Nurse, Coach, etc.) should make contact with the student-athlete's parent/guardian and inform him/her of the suspected sports-related concussion or head injury.
4. School personnel (Athletic Director/ Building Administrator, Licensed Athletic Trainer, School Nurse, Coach, etc.) shall provide the student-athlete with district board of education approved suggestions for management/ medical checklist to provide their parent/guardian and physician or other licensed healthcare professional trained in the evaluation and management of sports related concussions and other head injuries (See attachment sections at end of model policy for examples CDC, NCAA, etc.)
5. The student-athlete must receive written clearance from a physician, trained in the evaluation and management of concussions that states the student-athlete is asymptomatic at rest and may begin the local districts' graduated return-to-play protocol. Medical clearance that is inconsistent with district, charter, and non-public school policy may not be accepted and such matters will be referred to the school/team physician.

Graduated Return to Competition and Practice Protocol

- Complete physical, cognitive, emotional, and social rest is advised while the student-athlete is experiencing symptoms and signs of a sports-related concussion or other head injury. (Minimize mental exertion, limiting overstimulation, multi-tasking etc.)
- After written medical clearance is given by a physician trained in the evaluation and management of concussions stating that the student-athlete is asymptomatic at rest, the student-athlete may begin a graduated individualized return-to-play protocol supervised by a licensed athletic trainer, school/team physician or in cases where the afore mentioned are not available a physician or licensed health care provider trained in the evaluation and management of sports-related concussions. The following steps should be followed:
    1. Completion of a full day of normal cognitive activities (school day, studying for tests, watching practice, interacting with peers) without re-emergence of any signs or symptoms. If no return of symptoms, next day advance to:
    2. Light aerobic exercise, which includes walking, swimming, or stationary cycling, keeping the intensity < 70% maximum percentage heart rate: no resistance training. The objective of this step is increased heart rate. If no return of symptoms, next day advance to:
    3. Sport-specific exercise including skating, and/or running; no head impact activities. The objective of this step is to add movement and continue to increase heart rate. If no return of symptoms, next day advance to:
    4. Non-contact training drills (e.g., passing drills). The student-athlete may initiate progressive resistance training. If no return of symptoms, next day advance to:
    5. Following medical clearance (consultation between school health care personnel, i.e., Licensed Athletic Trainer, School/Team Physician, School Nurse and student-athlete's physician), participation in normal training activities. The objective of this step is to restore confidence and to assess functional skills by the coaching staff. If no return of symptoms, next day advance to:
    6. Return to play involving normal exertion or game activity.
- In the absence of daily testing by knowledgeable school district staff (i.e. Licensed Athletic Trainer, School/Team Physician) to clear a student-athlete to begin the graduated return-to-play

protocol a student –athlete should observe a 7 day rest/recovery period before commencing the protocol. Younger students (K-8) should observe the 7 day rest/recovery period (after they are symptom free at rest) prior to initiating the graduated-return-to play protocol. A physician trained in the evaluation and management of concussion as well as the parents/guardians of the student-athlete shall monitor the student-athlete in the absence of knowledgeable school district staff (i.e., Athletic Trainer, School/Team Physician). School Nurses may serve as an advocate for student-athletes in communicating signs and symptoms to physicians and parents/guardians.

- Utilization of available tools such as symptom checklists, baseline and balance testing are suggested.
- If the student athlete exhibits a re-emergence of any concussion signs or symptoms once they return to physical activity, he/she will be removed from further exertional activities and returned to his/her school/team physician or primary care physician.
- If concussion symptoms reoccur during the graduated return-to-play protocol, the student-athlete will return to the previous level of activity that caused no symptoms.

Temporary Accommodations for Student-Athletes with Sports-Related Head Injuries

- Rest is the best "medicine" for healing concussions or other head injuries. The concussed brain is affected in many functional aspects as a result of the injury. Memory, attention span, concentration and speed of processing significantly impacts learning. Further, exposing the concussed student-athlete to the stimulating school environment may delay the resolution of symptoms needed for recovery.
- Accordingly, consideration of the cognitive effects in returning to the classroom is also an important part of the treatment of sports-related concussions and head injuries.
- Mental exertion increases the symptoms from concussions and affects recovery. To recover, cognitive rest is just as important as physical rest. Reading, studying, computer usage, testing, texting – even watching movies if a student is sensitive to light/sound – can slow a student's recovery. In accordance with the Centers for Disease Control's toolkit on managing concussions boards of education may look to address the student's cognitive needs in the following ways.
- Students who return to school after a concussion may need to:
  1. Take rest breaks as needed.
  2. Spend fewer hours at school.
  3. Be given more time to take tests or complete assignments. (All courses should be considered)
  4. Receive help with schoolwork.
  5. Reduce time spent on the computer, reading, and writing.
  6. Be granted early dismissal to avoid crowded hallways.

Part III
Use of the Model Policy and Guidance

This document is presented as a summary guide and model. District boards of education, boards of trustees, and non-public schools may add additional provisions or protocols to address local issues and priorities, and may use formats that are consistent with the board of education's approved policies and procedures.

Part IV
Implementation of the Interscholastic Sports-Related Concussions and Head Injuries Policy

Statutory and Regulatory Provisions: *N.J.S.A.* 40-41.3 Information regarding the Interscholastic Head Injury Safety training program and policy for the prevention and treatment of sports-related concussions and head injuries which shall be completed by the school/team physician, coaches, athletic trainer, school nurse, and any other school employee the local district, charter, and non-public school deems necessary.

The school district, charter, and non-public school are required to monitor the above named school district employees in the completion of an Interscholastic Head Injury Training program such as the National Federation of State High Schools Association's online, "Concussion in Sports" or a comparable program which meets the mandated criteria and includes but is not limited to:

1. The recognition of the symptoms of head and neck injuries, concussions, and injuries related to second-impact syndrome.
2. Includes the appropriate criteria to delay the return to sports practice or competition of a student-athlete who has sustained a concussion or other head injury.
   *Additional head injury training programs that meet the mandated criteria may be completed by professionals of different levels of medical knowledge and training. Guidance for these additional training programs will be provided to each school district, charter, and nonpublic school by NJDOE.

The school district, charter, or nonpublic school that participates in an interscholastic sports program shall distribute the educational fact sheet annually to the parents or guardians of student-athletes and shall obtain a signed acknowledgement of the receipt of the fact sheet by the student-athlete and his parent or guardian.

Each school district, charter, and non-public school shall develop a written policy concerning the prevention and treatment of sports-related concussions and other head injuries among student-athletes. The policy shall include, but need not be limited to, the procedure followed when it is suspected that student-athlete has sustained a concussion or other head injury. Each school district shall implement the policy by the 2011-2012 school year.

Each school whose students participate in an interscholastic sports program and are suspected of sustaining a concussion or other head injury in practice or competition shall be immediately removed from the sports competition or practice. Student-athletes who are removed from competition or practice shall not participate in further sports activity until they are evaluated by a physician or other licensed healthcare provider trained in the evaluation and management of concussions, and receive written

clearance from a physician trained in the evaluation and management of concussions to return to completion or practice.

Part V
Resources on Interscholastic Sports Related Concussions and Head Injuries

Internet Resources
Centers for Disease Control and Prevention – Concussion Toolkit
http://www.cdc.gov/concussion/HeadsUp/physicians_tool_kit.html
http://www.cdc.gov/concussion/headsup/pdf/ACE-a.pdf
http://www.cdc.gov/concussion/headsup/pdf/ACE_care_plan_school_version_a.pdf
http://www.cdc.gov/concussion/headsup/pdf/Concussion_in_Sports_palm_card-a.pdf

National Federation of State High Schools Association- Online "Concussion in Sports" training program.
www.nfhs.org

Brain Injury Association of New Jersey
www.BIANJ.org
www.sportsconcussion.com

Athletic Trainers Society of New Jersey
www.atsnj.org

National Collegiate Athletic Association
www.NCAA.org/health-safety

New Jersey Interscholastic Athletic Association
www.njsiaa.org

Articles
"Consensus Statement on Concussion in Sport: 3rd International Conference on Concussion in Sport held in Zurich, November 2008". Clinical Journal of Sports Medicine, Volume 19, May 2009, pp.185-200

Clinical Report: Sport-related Concussion in Children and Adolescents" Halstead ME, Walter, KD and the Council on Sports Medicine and Fitness Pediatrics Volume 126, September 2010, pp.597-615.

Website Resources

- Sudden Death in Athletes
  http://tinyurl.com/m2gjmvq
- Hypertrophic Cardiomyopathy Association
  www.4hcm.org
- American Heart Association www.heart.org

Collaborating Agencies:

American Academy of Pediatrics
New Jersey Chapter
3836 Quakerbridge Road, Suite 108
Hamilton, NJ 08619
(p) 609-842-0014
(f) 609-842-0015
www.aapnj.org

American Heart Association
1 Union Street, Suite 301
Robbinsville, NJ, 08691
(p) 609-208-0020
www.heart.org

New Jersey Department of Education
PO Box 500
Trenton, NJ 08625-0500
(p) 609-292-5935
www.state.nj.us/education/

New Jersey Department of Health
P. O. Box 360
Trenton, NJ 08625-0360
(p) 609-292-7837
www.state.nj.us/health

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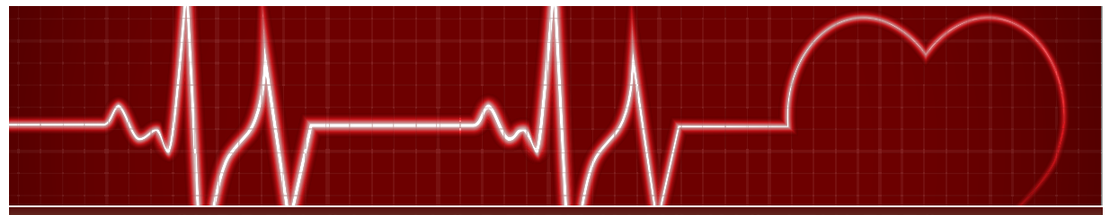
SUDDEN CARDIAC DEATH IN YOUNG ATHLETES

The Basic Facts on Sudden Cardiac Death in Young Athletes

STATE OF NEW JERSEY
DEPARTMENT OF EDUCATION

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

American Heart Association
Learn and Live



SUDDEN CARDIAC DEATH IN YOUNG ATHLETES

Sudden death in young athletes between the ages of 10 and 19 is very rare. What, if anything, can be done to prevent this kind of tragedy?

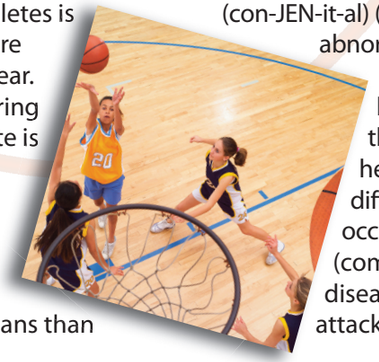
What is sudden cardiac death in the young athlete?

Sudden cardiac death is the result of an unexpected failure of proper heart function, usually (about 60% of the time) during or immediately after exercise without trauma. Since the heart stops pumping adequately, the athlete quickly collapses, loses consciousness, and ultimately dies unless normal heart rhythm is restored using an automated external defibrillator (AED).

How common is sudden death in young athletes?

Sudden cardiac death in young athletes is very rare. About 100 such deaths are reported in the United States per year. The chance of sudden death occurring to any individual high school athlete is about one in 200,000 per year.

Sudden cardiac death is more common: in males than in females; in football and basketball than in other sports; and in African-Americans than in other races and ethnic groups.



What are the most common causes?

Research suggests that the main cause is a loss of proper heart rhythm, causing the heart to quiver instead of pumping blood to the brain and body. This is called ventricular fibrillation (ven- TRICK-you-lar fib-roo-LAY-shun). The problem is usually caused by one of several cardiovascular abnormalities and electrical diseases of the heart that go unnoticed in healthy-appearing athletes.

The most common cause of sudden death in an athlete is hypertrophic cardiomyopathy (hi-per-TRO-fic CAR- dee-oh-my-OP-a-thee) also called HCM. HCM is a disease of the heart, with abnormal thickening of the heart muscle, which can cause serious heart rhythm problems and blockages to blood flow. This genetic disease runs in families and usually develops gradually over many years.

The second most likely cause is congenital (con-JEN-it-al) (i.e., present from birth) abnormalities of the coronary arteries. This means that these blood vessels are connected to the main blood vessel of the heart in an abnormal way. This differs from blockages that may occur when people get older (commonly called "coronary artery disease," which may lead to a heart attack).

Other diseases of the heart that can lead to sudden death in young people include:

- Myocarditis (my-oh-car-DIE-tis), an acute inflammation of the heart muscle (usually due to a virus).
- Dilated cardiomyopathy, an enlargement of the heart for unknown reasons.
- Long QT syndrome and other electrical abnormalities of the heart which cause abnormal fast heart rhythms that can also run in families.
- Marfan syndrome, an inherited disorder that affects heart valves, walls of major arteries, eyes and the skeleton. It is generally seen in unusually tall athletes, especially if being tall is not common in other family members.

Are there warning signs to watch for?

In more than a third of these sudden cardiac deaths, there were warning signs that were not reported or taken seriously. Warning signs are:

- Fainting, a seizure or convulsions during physical activity;
- Fainting or a seizure from emotional excitement, emotional distress or being startled;
- Dizziness or lightheadedness, especially during exertion;
- Chest pains, at rest or during exertion;
- Palpitations - awareness of the heart beating unusually (skipping, irregular or extra beats) during athletics or during cool down periods after athletic participation;
- Fatigue or tiring more quickly than peers; or
- Being unable to keep up with friends due to shortness of breath (labored breathing).

What are the current recommendations for screening young athletes?

New Jersey requires all school athletes to be examined by their primary care physician ("medical home") or school physician at least once per year. The New Jersey Department of Education requires use of the specific Preparticipation Physical Examination Form (PPE).

This process begins with the parents and student-athletes answering questions about symptoms during exercise (such as chest pain, dizziness, fainting, palpitations or shortness of breath); and questions about family health history.

The primary healthcare provider needs to know if any family member died suddenly during physical activity or during a seizure. They also need to know if anyone in the family under the age of 50 had an unexplained sudden death such as drowning or car accidents. This information must be provided annually for each exam because it is so essential to identify those at risk for sudden cardiac death.

The required physical exam includes measurement of blood pressure and a careful listening examination of the heart, especially for murmurs and rhythm abnormalities. If there are no warning signs reported on the health history and no abnormalities discovered on exam, no further evaluation or testing is recommended.

Are there options privately available to screen for cardiac conditions?

Technology-based screening programs including a 12-lead electrocardiogram (ECG) and echocardiogram (ECHO) are noninvasive and painless options parents may consider in addition to the required PPE. However, these procedures may be expensive and are not currently advised by the American Academy of Pediatrics and the American College of Cardiology unless the PPE reveals an indication for these tests. In addition to the expense, other limitations of technology-based tests include the possibility of "false positives" which leads to unnecessary stress for the student and parent or guardian as well as unnecessary restriction from athletic participation.

The United States Department of Health and Human Services offers risk assessment options under the Surgeon General's Family History Initiative available at http://www.hhs.gov/familyhistory/index.html.

When should a student athlete see a heart specialist?

If the primary healthcare provider or school physician has concerns, a referral to a child heart specialist, a pediatric cardiologist, is recommended. This specialist will perform a more thorough evaluation, including an electrocardiogram (ECG), which is a graph of the electrical activity of the heart. An echocardiogram, which is an ultrasound test to allow for direct visualization of the heart structure, will likely also be done. The specialist may also order a treadmill exercise test and a monitor to enable a longer recording of the heart rhythm. None of the testing is invasive or uncomfortable.

Can sudden cardiac death be prevented just through proper screening?

A proper evaluation should find most, but not all, conditions that would cause sudden death in the athlete. This is because some diseases are difficult to uncover and may only develop later in life. Others can develop following a normal screening evaluation, such as an infection of the heart muscle from a virus.

This is why screening evaluations and a review of the family health history need to be performed on a yearly basis by the athlete's primary healthcare provider. With proper screening and evaluation, most cases can be identified and prevented.

Why have an AED on site during sporting events?

The only effective treatment for ventricular fibrillation is immediate use of an automated external defibrillator (AED). An AED can restore the heart back into a normal rhythm. An AED is also life-saving for ventricular fibrillation caused by a blow to the chest over the heart (commotio cordis).

N.J.S.A. 18A:40-41a through c, known as "Janet's Law," requires that at any school-sponsored athletic event or team practice in New Jersey public and nonpublic schools including any of grades K through 12, the following must be available:

- An AED in an unlocked location on school property within a reasonable proximity to the athletic field or gymnasium; and
- A team coach, licensed athletic trainer, or other designated staff member if there is no coach or licensed athletic trainer present, certified in cardiopulmonary resuscitation (CPR) and the use of the AED; or
- A State-certified emergency services provider or other certified first responder.

The American Academy of Pediatrics recommends the AED should be placed in central location that is accessible and ideally no more than a 1 to $1^1/_2$ minute walk from any location and that a call is made to activate 911 emergency system while the AED is being retrieved.

State of New Jersey
DEPARTMENT OF EDUCATION

Sudden Cardiac Death Pamphlet

Sign-Off Sheet

Name of School District:_____

Name of Local School: _____

I/We acknowledge that we received and reviewed the Sudden Cardiac Death in Young Athletes pamphlet.

Student Signature: _____

Parent or Guardian
Signature:_____

Date:_____

New Jersey Department of Education 2014: pursuant to the Scholastic Student-Athlete Safety Act, P.L. 2013, c.71