

# Eastampton Township School District



Ambrose F. Duckett, III  
*Superintendent/Principal*

Ashlee Caldwell  
*Business Administrator/Board Secretary*

---

To the Examining Healthcare Provider:

In order to ensure that the school health office has a complete and updated health record for the student, please complete the information below.

**Your signature is required** on the *Preparticipation Physical Evaluation: Physical Evaluation Form*.

**Your office stamp and two signatures are required** on the *Preparticipation Physical Evaluation: Clearance Form*. This includes your information regarding the Cardiac Professional Development Module completion date.

Thank you for your cooperation.

Name of student \_\_\_\_\_

Date of Exam \_\_\_\_\_

Most recent immunizations and dates administered:

---

---

***SCHOLASTIC STUDENT-ATHLETE SAFETY ACT***  
**INFORMATION FACT SHEET**  
**FOR PARENTS/GUARDIANS**

Prior to participation on a school-sponsored interscholastic or intramural athletic team or squad, each student-athlete in grades six through 12 must present a completed Preparticipation Physical Evaluation (PPE) form to the designated school staff member. Important information regarding the PPE is provided below, and you should feel free to share with your child's medical home health care provider.

1. **The PPE may ONLY be completed by a licensed physician, advanced practice nurse (APN) or physician assistant (PA) that has completed the Student-Athlete Cardiac Assessment professional development module.** It is recommended that you verify that your medical provider has completed this module before scheduling an appointment for a PPE.
2. The required PPE must be conducted within 365 days prior to the first official practice in an athletic season. The PPE form is available in English and Spanish at <http://www.state.nj.us/education/students/safety/health/records/athleticphysicalsform.pdf>.
3. The parent/guardian must complete the History Form (page one), and insert the date of the required physical examination at the top of the page.
4. The parent/guardian must complete The Athlete with Special Needs: Supplemental History Form (page two), if applicable, for a student with a disability that limits major life activities, and insert the date of the required physical examination on the top of the page.
5. The licensed physician, APN or PA who performs the physical examination must complete the remaining two pages of the PPE, and insert the date of the examination on the Physical Examination Form (page three) and Clearance Form (page four).
6. The licensed physician, APN or PA must also sign the certification statement on the PPE form attesting to the completion of the professional development module. Each board of education and charter school or nonpublic school governing authority must retain the original signed certification on the PPE form to attest to the qualification of the licensed physician, APN or PA to perform the PPE.
7. The school district must provide written notification to the parent/guardian, signed by the school physician, indicating approval of the student's participation in a school-sponsored interscholastic or intramural athletic team or squad based upon review of the medical report, or must provide the reason(s) for the disapproval of the student's participation.
8. For student-athletes that had a medical examination completed more than 90 days prior to the first official practice in an athletic season, the Health History Update Questionnaire (HHQ) form must be completed, and signed by the student's parent/guardian. The HHQ must be reviewed by the school nurse and, if applicable, the school's athletic trainer. The HHQ is available at <http://www.state.nj.us/education/students/safety/health/records/HealthHistoryUpdate.pdf>.

For more information, please review the Frequently Asked Questions which are available at <http://www.state.nj.us/education/students/safety/health/services/athlete/faq.pdf>. You may also direct questions to the **Eastampton Community School Nurses Office, telephone 609-267-9172 ext. 122.**

# ■ 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: <input type="checkbox"/> Asthma <input type="checkbox"/> Anemia <input type="checkbox"/> Diabetes <input type="checkbox"/> 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: <input type="checkbox"/> High blood pressure <input type="checkbox"/> A heart murmur <input type="checkbox"/> High cholesterol <input type="checkbox"/> A heart infection <input type="checkbox"/> 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 \_\_\_\_\_

# ■ 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		
	<b>Yes</b>	<b>No</b>
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.**

	<b>Yes</b>	<b>No</b>
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 \_\_\_\_\_

© 2010 American Academy of Family Physicians, American Academy of Pediatrics, American College of Sports Medicine, American Medical Society for Sports Medicine, American Orthopaedic Society for Sports Medicine, and American Osteopathic Academy of Sports Medicine. Permission is granted to reprint for noncommercial, educational purposes with acknowledgment.

New Jersey Department of Education 2014; Pursuant to P.L.2013, c. 71

**NOTE:** The preparticipation physical examination must be conducted by a health care provider who 1) is a licensed physician, advanced practice nurse, or physician assistant; and 2) completed the Student-Athlete Cardiac Assessment Professional Development Module.

# ■ PREPARTICIPATION PHYSICAL EVALUATION PHYSICAL EXAMINATION FORM

Name \_\_\_\_\_ Date of birth \_\_\_\_\_

## PHYSICIAN REMINDERS

- 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?
- Consider reviewing questions on cardiovascular symptoms (questions 5–14).

EXAMINATION		
Height _____	Weight _____	<input type="checkbox"/> Male <input type="checkbox"/> Female
BP _____ / _____ ( _____ / _____ )	Pulse _____	Vision R 20/ _____ L 20/ _____ Corrected <input type="checkbox"/> Y <input type="checkbox"/> N
MEDICAL	NORMAL	ABNORMAL FINDINGS
Appearance <ul style="list-style-type: none"> <li>Marfan stigmata (kyphoscoliosis, high-arched palate, pectus excavatum, arachnodactyly, arm span &gt; height, hyperlaxity, myopia, MVP, aortic insufficiency)</li> </ul>		
Eyes/ears/nose/throat <ul style="list-style-type: none"> <li>Pupils equal</li> <li>Hearing</li> </ul>		
Lymph nodes		
Heart <sup>a</sup> <ul style="list-style-type: none"> <li>Murmurs (auscultation standing, supine, +/- Valsalva)</li> <li>Location of point of maximal impulse (PMI)</li> </ul>		
Pulses <ul style="list-style-type: none"> <li>Simultaneous femoral and radial pulses</li> </ul>		
Lungs		
Abdomen		
Genitourinary (males only) <sup>b</sup>		
Skin <ul style="list-style-type: none"> <li>HSV, lesions suggestive of MRSA, tinea corporis</li> </ul>		
Neurologic <sup>c</sup>		
MUSCULOSKELETAL		
Neck		
Back		
Shoulder/arm		
Elbow/forearm		
Wrist/hand/fingers		
Hip/thigh		
Knee		
Leg/ankle		
Foot/toes		
Functional <ul style="list-style-type: none"> <li>Duck-walk, single leg hop</li> </ul>		

<sup>a</sup>Consider ECG, echocardiogram, and referral to cardiology for abnormal cardiac history or exam.

<sup>b</sup>Consider GU exam if in private setting. Having third party present is recommended.

<sup>c</sup>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 of exam \_\_\_\_\_

Address \_\_\_\_\_ Phone \_\_\_\_\_

Signature of physician, APN, PA \_\_\_\_\_

# ■ 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 \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## HCP OFFICE STAMP

## SCHOOL PHYSICIAN:

Reviewed on \_\_\_\_\_  
(Date)

Approved \_\_\_\_\_ Not Approved \_\_\_\_\_

Signature: \_\_\_\_\_

**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 \_\_\_\_\_

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

**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 too 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](http://www.cdc.gov/concussion/sports/index.html)

[www.nfhs.com](http://www.nfhs.com)

[www.ncaa.org/health-safety](http://www.ncaa.org/health-safety)

[www.bianj.org](http://www.bianj.org)

[www.attnj.org](http://www.attnj.org)

---

Signature of Student-Athlete

---

Print Student-Athlete's Name

---

Date

---

Signature of Parent/Guardian

---

Print Parent/Guardian's Name

---

Date

## Website Resources

- Sudden Death in Athletes  
<http://tinyurl.com/m2gjmvmq>
- Hypertrophic Cardiomyopathy Association  
[www.4hcm.org](http://www.4hcm.org)
- American Heart Association [www.heart.org](http://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](http://www.aapnj.org)



### American Heart Association

1 Union Street, Suite 301  
Robbinsville, NJ, 08691  
(p) 609-208-0020  
[www.heart.org](http://www.heart.org)



### New Jersey Department of Education

PO Box 500  
Trenton, NJ 08625-0500  
(p) 609-292-5935  
[www.state.nj.us/education/](http://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](http://www.state.nj.us/health)



**Lead Author: American Academy of Pediatrics,  
New Jersey Chapter**

**Written by: Initial draft by Sushma Raman Hebbar,  
MD & Stephen G. Rice, MD PhD**

**Additional Reviewers:** NJ Department of Education,  
NJ Department of Health and Senior Services,  
American Heart Association/New Jersey Chapter,  
NJ Academy of Family Practice, Pediatric Cardiologists,  
New Jersey State School Nurses

**Revised 2014:** Nancy Curry, EdM;  
Christene DeWitt-Parker, MSN, CSN, RN;  
Lakota Kruse, MD, MPH; Susan Martz, EdM;  
Stephen G. Rice, MD; Jeffrey Rosenberg, MD,  
Louis Teichholz, MD; Perry Weinstock, MD

# 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*



**S**udden 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).

## SUDDEN CARDIAC DEATH IN YOUNG ATHLETES

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 1½ 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: Eastampton Township School District

Name of Local School: Eastampton Community School

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

Print Student Name: \_\_\_\_\_

Student Signature: \_\_\_\_\_

Parent/Guardian

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



# OPIOID USE AND MISUSE EDUCATIONAL FACT SHEET

## Keeping Student-Athletes Safe

School athletics can serve an integral role in students' development. In addition to providing healthy forms of exercise, school athletics foster friendships and camaraderie, promote sportsmanship and fair play, and instill the value of competition.

Unfortunately, sports activities may also lead to injury and, in rare cases, result in pain that is severe or long-lasting enough to require a prescription opioid painkiller.<sup>1</sup> It is important to understand that overdoses from opioids are on the rise and are killing Americans of all ages and backgrounds. Families and communities across the country are coping with the health, emotional and economic effects of this epidemic.<sup>2</sup>

This educational fact sheet, created by the New Jersey Department of Education as required by state law (*N.J.S.A. 18A:40-41.10*), provides information concerning the use and misuse of opioid drugs in the event that a health care provider prescribes a student-athlete or cheerleader an opioid for a sports-related injury. Student-athletes and cheerleaders participating in an interscholastic sports program (and their parent or guardian, if the student is under age 18) must provide their school district written acknowledgment of their receipt of this fact sheet.

### How Do Athletes Obtain Opioids?

In some cases, student-athletes are prescribed these medications. According to research, about a third of young people studied obtained pills from their own previous prescriptions (i.e., an unfinished prescription used outside of a physician's supervision), and 83 percent of adolescents had unsupervised access to their prescription medications.<sup>3</sup> It is important for parents to understand the possible hazard of having unsecured prescription medications in their households. Parents should also understand the importance of proper storage and disposal of medications, even if they believe their child would not engage in non-medical use or diversion of prescription medications.

### What Are Signs of Opioid Use?

According to the National Council on Alcoholism and Drug Dependence, 12 percent of male athletes and 8 percent of female athletes had used prescription opioids in the 12-month period studied.<sup>3</sup> In the early stages of abuse, the athlete may exhibit unprovoked nausea and/or vomiting. However, as he or she develops a tolerance to the drug, those signs will diminish. Constipation is not uncommon, but may not be reported. One of the most significant indications of a possible opioid addiction is an athlete's decrease in academic or athletic performance, or a lack of interest in his or her sport. If these warning signs are noticed, best practices call for the student to be referred to the appropriate professional for screening,<sup>4</sup> such as provided through an evidence-based practice to identify problematic use, abuse and dependence on illicit drugs (e.g., Screening, Brief Intervention, and Referral to Treatment (SBIRT)) offered through the [New Jersey Department of Health](#).

## What Are Some Ways Opioid Use and Misuse Can Be Prevented?

According to the New Jersey State Interscholastic Athletic Association (NJSIAA) Sports Medical Advisory Committee chair, John P. Kripsak, D.O., "Studies indicate that about 80 percent of heroin users started out by abusing narcotic painkillers."

According to NJSIAA Sports Medical Advisory Committee chair, John P. Kripsak, D.O., "Studies indicate that about 80 percent of heroin users started out by abusing narcotic painkillers."

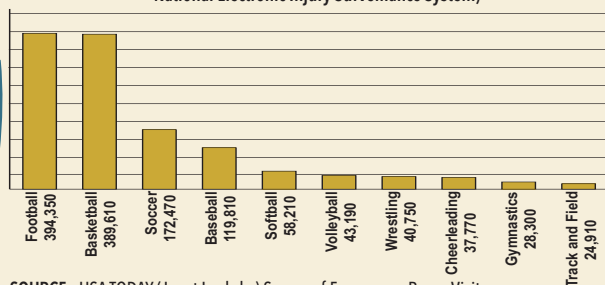
The Sports Medical Advisory Committee, which includes representatives of NJSIAA member schools as well as experts in the field of healthcare and medicine, recommends the following:

- The pain from most sports-related injuries can be managed with non-narcotic medications such as acetaminophen, non-steroidal anti-inflammatory medications like ibuprofen, naproxen or aspirin. Read the label carefully and always take the recommended dose, or follow your doctor's instructions. More is not necessarily better when taking an over-the-counter (OTC) pain medication, and it can lead to dangerous side effects.<sup>4</sup>
- Ice therapy can be utilized appropriately as an anesthetic.
- Always discuss with your physician exactly what is being prescribed for pain and request to avoid narcotics.
- In extreme cases, such as severe trauma or post-surgical pain, opioid pain medication should not be prescribed for more than five days at a time;
- Parents or guardians should always control the dispensing of pain medications and keep them in a safe, non-accessible location; and
- Unused medications should be disposed of immediately upon cessation of use. Ask your pharmacist about drop-off locations or home disposal kits like Deterra or Medsaway.



Number of Injuries Nationally in 2012 Among Athletes 19 and Under from 10 Popular Sports

(Based on data from U.S. Consumer Product Safety Commission's National Electronic Injury Surveillance System)



SOURCE: USA TODAY (Janet Loehrke) Survey of Emergency Room Visits

## Even With Proper Training and Prevention, Sports Injuries May Occur

There are two kinds of sports injuries. Acute injuries happen suddenly, such as a sprained ankle or strained back. Chronic injuries may happen after someone plays a sport or exercises over a long period of time, even when applying overuse-preventative techniques.<sup>5</sup>

Athletes should be encouraged to speak up about injuries, coaches should be supported in injury-prevention decisions, and parents and young athletes are encouraged to become better educated about sports safety.<sup>6</sup>

## What Are Some Ways to Reduce the Risk of Injury?

Half of all sports medicine injuries in children and teens are from overuse. An overuse injury is damage to a bone, muscle, ligament, or tendon caused by repetitive stress without allowing time for the body to heal. Children and teens are at increased risk for overuse injuries because growing bones are less resilient to stress. Also, young athletes may not know that certain symptoms are signs of overuse.

The best way to deal with sports injuries is to keep them from happening in the first place. Here are some recommendations to consider:



**PREPARE** Obtain the preparticipation physical evaluation prior to participation on a school-sponsored interscholastic or intramural athletic team or squad.



**CONDITIONING** Maintain a good fitness level during the season and offseason. Also important are proper warm-up and cooldown exercises.



**PLAY SMART** Try a variety of sports and consider specializing in one sport before late adolescence to help avoid overuse injuries.



**ADEQUATE HYDRATION** Keep the body hydrated to help the heart more easily pump blood to muscles, which helps muscles work efficiently.



**TRAINING** Increase weekly training time, mileage or repetitions no more than 10 percent per week. For example, if running 10 miles one week, increase to 11 miles the following week. Athletes should also cross-train and perform sport-specific drills in different ways, such as running in a swimming pool instead of only running on the road.



**REST UP** Take at least one day off per week from organized activity to recover physically and mentally. Athletes should take a combined three months off per year from a specific sport (may be divided throughout the year in one-month increments). Athletes may remain physically active during rest periods through alternative low-stress activities such as stretching, yoga or walking.



**PROPER EQUIPMENT** Wear appropriate and properly fitted protective equipment such as pads (neck, shoulder, elbow, chest, knee, and shin), helmets, mouthpieces, face guards, protective cups, and eyewear. Do not assume that protective gear will prevent all injuries while performing more dangerous or risky activities.

## Resources for Parents and Students on Preventing Substance Misuse and Abuse

The following list provides some examples of resources:

**National Council on Alcoholism and Drug Dependence – NJ** promotes addiction treatment and recovery.

**New Jersey Department of Health, Division of Mental Health and Addiction Services** is committed to providing consumers and families with a wellness and recovery-oriented model of care.

**New Jersey Prevention Network** includes a [parent's quiz](#) on the effects of opioids.

**Operation Prevention Parent Toolkit** is designed to help parents learn more about the opioid epidemic, recognize warning signs, and open lines of communication with their children and those in the community.

**Parent to Parent NJ** is a grassroots coalition for families and children struggling with alcohol and drug addiction.

**Partnership for a Drug Free New Jersey** is New Jersey's anti-drug alliance created to localize and strengthen drug-prevention media efforts to prevent unlawful drug use, especially among young people.

**The Science of Addiction: The Stories of Teens** shares common misconceptions about opioids through the voices of teens.

**Youth IMPACTING NJ** is made up of youth representatives from coalitions across the state of New Jersey who have been impacting their communities and peers by spreading the word about the dangers of underage drinking, marijuana use, and other substance misuse.

**References**  
<sup>1</sup> Massachusetts Technical Assistance Partnership for Prevention  
<sup>2</sup> Centers for Disease Control and Prevention  
<sup>3</sup> New Jersey State Interscholastic Athletic

Association (NJSIAA) Sports Medical Advisory Committee (SMAC)  
<sup>4</sup> Athletic Management, David Csillan, athletic trainer, Ewing High School, NJSIAA SMAC

<sup>5</sup> National Institute of Arthritis and Musculoskeletal and Skin Diseases  
<sup>6</sup> USA TODAY  
<sup>7</sup> American Academy of Pediatrics

---

## Use and Misuse of Opioid Drugs Fact Sheet

### Student-Athlete and Parent/Guardian Sign-Off

In accordance with *N.J.S.A. 18A:40-41.10*, public school districts, approved private schools for students with disabilities, and nonpublic schools participating in an interscholastic sports program must distribute this [Opioid Use and Misuse Educational Fact Sheet](#) to all student-athletes and cheerleaders. In addition, schools and districts must obtain a signed acknowledgement of receipt of the fact sheet from each student-athlete and cheerleader, and for students under age 18, the parent or guardian must also sign.

This sign-off sheet is due to the appropriate school personnel as determined by your district prior to the first official practice session of the spring 2018 athletic season (March 2, 2018, as determined by the New Jersey State Interscholastic Athletic Association) and annually thereafter prior to the student-athlete's or cheerleader's first official practice of the school year.

Name of School: Eastampton Community School

Name of School District (if applicable): Eastampton Township

I/We acknowledge that we received and reviewed the Educational Fact Sheet on the Use and Misuse of Opioid Drugs.

Student Signature: \_\_\_\_\_

Parent/Guardian Signature: \_\_\_\_\_  
(also needed if student is under age 18):

Date: \_\_\_\_\_

<sup>1</sup>Does not include athletic clubs or intramural events.

# Eastampton School District

## HEALTH HISTORY UPDATE QUESTIONNAIRE

Name of School Eastampton Community School

To participate on a school-sponsored interscholastic or intramural athletic team or squad, each student whose physical examination was completed more than 90 days prior to the first day of official practice shall provide a health history update questionnaire completed and signed by the student's parent or guardian.

Student \_\_\_\_\_ Age \_\_\_\_\_ Grade \_\_\_\_\_

Date of Last Physical Examination \_\_\_\_\_ Sport \_\_\_\_\_

Since the last pre-participation physical examination, has your son/daughter:

1. Been medically advised not to participate in a sport? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, describe in detail \_\_\_\_\_

\_\_\_\_\_

2. Sustained a concussion, been unconscious or lost memory from a blow to the head? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, explain in detail \_\_\_\_\_

\_\_\_\_\_

3. Broken a bone or sprained/strained/dislocated any muscle or joints? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, describe in detail \_\_\_\_\_

\_\_\_\_\_

4. Fainted or "blacked out?" Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, was this during or immediately after exercise? \_\_\_\_\_

\_\_\_\_\_

5. Experienced chest pains, shortness of breath or "racing heart?" Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, explain \_\_\_\_\_

\_\_\_\_\_

6. Has there been a recent history of fatigue and unusual tiredness? Yes \_\_\_\_\_ No \_\_\_\_\_

7. Been hospitalized or had to go to the emergency room? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, explain in detail \_\_\_\_\_

\_\_\_\_\_

8. Since the last physical examination, has there been a sudden death in the family or has any member of the family under age 50 had a heart attack or "heart trouble?" Yes \_\_\_\_\_ No \_\_\_\_\_

9. Started or stopped taking any over-the-counter or prescribed medications? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, name of medication(s) \_\_\_\_\_

\_\_\_\_\_

Date: \_\_\_\_\_ Signature of parent/guardian \_\_\_\_\_

**PLEASE RETURN COMPLETED FORM TO THE SCHOOL NURSE'S OFFICE**