Perth Amboy Public Schools
Sports Physicals
Information Fact Sheet
For Parents/Guardians

Prior to participation on a school-sponsored athletic team, each student in grades 6 through 12 must present a completed pre-participation physical, Physical and Cardiac information form to the School Nurse. It is very important that these forms be completed and returned for processing to avoid delay in your child/children ability to be able to participate in his/her desired sport.

Please be aware that **the School Physician must review all sports physicals and the official confirmation for participation can be delayed by up to 2 weeks,** regardless of status determined by personal physician.

Therefore it is important to obtain the sports physical in a timely manner to avoid delay for your child to try-out and participate in sports.

1. The Physical Form 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 Physical.
2. Parent/guardian must complete the *History Form* prior to obtaining the Sports Physical.
3. The licensed physician, APN or PA who performs the physical examination must complete the *Physical Examination* Form and *Clearance Form.*
4. For students that had a physical examination completed **more than 90 days prior to the first official practice in an athletic season,** the ***Health History Update form*** **MUST be completed and signed by the student's parent/guardian.**

Any questions please contact the Coach, School Nurse or Athletic Director.

NOTE: The preparticiaption physical examination must be conducted by a health care provider who 1) is a licensed physician, advanced practician 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

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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HE0508 9-2681/0410
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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 _____

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 _____

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ATTENTION PARENT/GUARDIAN: The preparticiaption physical examination (page 3) must be completed by a health care provider who has completed the Student-Athlete Cardiac Assessment Professional Development Module.

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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9-2681/0410

HED503

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

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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STATE OF NEW JERSEY

DEPARTMENT OF EDUCATION

A Memo from the New Jersey Department of Education

Date: January 9, 2018

To: Chief School Administrators, Charter School and Renaissance School Project Leads, Administrators of Approved Private Schools for Students with Disabilities, Nonpublic School Administrators

Route To: Principals, School Nurses, Athletic Directors, Athletic Trainers, Coaches

From: Peggy McDonald, Acting Assistant Commissioner
Division of Learning Supports and Specialized Services

Deadline: March 2, 2018

Opioid Use and Misuse Fact Sheet and Sign-Off Sheet

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 the *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.

In accordance with the law, the fact sheet must be distributed and a sign-off sheet completed and collected for each student-athlete or cheerleader prior to the first official practice session of the spring 2018 athletic season (March 2, as designated by the New Jersey State Interscholastic Athletic Association), and annually thereafter prior to the student's first official practice of the school year. For the convenience of school officials, the New Jersey Department of Education (NJDOE) has designed a template sign-off form. This sign-off form cannot be combined with any other sign-off sheets that students or parents are required to complete.

These forms, as well as a text-only version of the Opioid Use and Misuse Fact Sheet, can be found on the NJDOE's Alcohol, Tobacco and other Drug Use webpage.

Background

In July 2017, Governor Christie signed into law *P.L.* 2017, *c.*167, which requires the NJDOE to develop a fact sheet containing information on 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. The law also requires student-athletes (and their parents, if the student is under age 18) to annually sign an acknowledgement of receipt of the fact sheet. The fact sheet was developed by the NJDOE in consultation with the New Jersey Department of Health, the New Jersey State Interscholastic Athletic Association, and Karan Chauhan, a student at Parsippany Hills High School who serves as the student representative to the State Board of Education.

Contact Information

Questions may be directed to healthyschools@doe.state.nj.us.

c: Members, State Board of Education
Kimberley Harrington, Commissioner
NJDOE Staff
Statewide Parent Advocacy Network
Garden State Coalition of Schools
NJ LEE Group

[The New Jersey Department of Education developed this template Student-Athlete Sign-Off Form in January 2018 to assist schools with adhering to state statute requiring student-athletes (and their parents/guardians, if the student is a minor) to confirm they have received an Opioid Fact Sheet from the school. School districts, approved private schools for students with disabilities, and nonpublic schools that participate in an interscholastic sports or cheerleading program should insert their district or school letterhead here.]

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:

Name of School District (if applicable):

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:

[1]Does not include athletic clubs or intramural events.

Perth Amboy Public Schools

Mr. Nephtaly Cardona
Director of Athletics, Health & Physical Education
300 Eagle Avenue, Perth Amboy, NJ 08861
Phone: *(732) 376-6030 ext. 23408*
Email: Nephcardona@paps.net

NJSIAA STEROID TESTING POLICY

CONSENT TO RANDOM TESTING

In Executive Order 72, issued December 20, 2005, Governor Richard Codey directed the New Jersey Department of Education to work in conjunction with the New Jersey State Interscholastic Athletic Association (NJSIAA) to develop and implement a program of random testing for steroids, of teams and individuals qualifying for championship games.

Beginning in the Fall, 2006 sports season, any student-athlete who possesses, distributes, ingests or otherwise uses any of the banned substances on the attached page, without written prescription by a fully-licensed physician, as recognized by the American Medical Association, to treat a medical condition, violates the NJSIAA's sportsmanship rule, and is subject to NJSIAA penalties, including ineligibility from competition. The NJSIAA will test certain randomly selected individuals and teams that qualify for a state championship tournament or state championship competition for banned substances. The results of all tests shall be considered confidential and shall only be disclosed to the student, his or her parents and his or her school. No student may participate in NJSIAA competition unless the student and the student's parent/guardian consent to random testing.

By signing below, we consent to random testing in accordance with the NJSIAA steroid testing policy. We understand that, if the student or the student's team qualifies for a state championship tournament or state championship competition, the student may be subject to testing for banned substances.

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

STUDENT/PARENT CONCUSSION AWARENESS FORM

SCHOOL: _____

DANGERS OF CONCUSSION

Concussions at all levels of sports have received a great deal of attention and a state law has been passed to address this issue. Adolescent athletes are particularly vulnerable to the effects of concussion. Once considered little more than a minor "ding" to the head, it is now understood that a concussion has the potential to result in death, or changes in brain function (either short-term or long-term). A concussion is a brain injury that results in a temporary disruption of normal brain function. A concussion occurs when the brain is violently rocked back and forth or twisted inside the skull as a result of a blow to the head or body. Continued participation in any sport following a concussion can lead to worsening concussion symptoms, as well as increased risk for further injury to the brain, and even death.

Player and parental education in this area is crucial – that is the reason for this document. Refer to it regularly. This form must be signed by a parent or guardian of each student who wishes to participate in GHSA athletics. One copy needs to be returned to the school, and one retained at home.

COMMON SIGNS AND SYMPTOMS OF CONCUSSION

- Headache, dizziness, poor balance, moves clumsily, reduced energy level/tiredness
- Nausea or vomiting
- Blurred vision, sensitivity to light and sounds
- Fogginess of memory, difficulty concentrating, slowed thought processes, confused about surroundings or game assignments
- Unexplained changes in behavior and personality
- Loss of consciousness (NOTE: This does not occur in all concussion episodes.)

BY-LAW 2.68: GHSA CONCUSSION POLICY: In accordance with Georgia law and national playing rules published by the National Federation of State High School Associations, any athlete who exhibits signs, symptoms, or behaviors consistent with a concussion shall be immediately removed from the practice or contest and shall not return to play until an appropriate health care professional has determined that no concussion has occurred. (NOTE: An appropriate health care professional may include, licensed physician (MD/DO) or another licensed individual under the supervision of a licensed physician, such as a nurse practitioner, physician assistant, or certified athletic trainer who has received training in concussion evaluation and management.

a) No athlete is allowed to return to a game or a practice on the same day that a concussion (a) has been diagnosed, OR (b) cannot be ruled out.
b) Any athlete diagnosed with a concussion shall be cleared medically by an appropriate health care professional prior to resuming participation in any future practice or contest. The formulation of a gradual return to play protocol shall be a part of the medical clearance.
c) It is mandatory that every coach in each GHSA sport participate in a free, online course on concussion management prepared by the NFHS and available at www.nfhslearn.com at least every two years – beginning with the 2013-2014 school year.
d) Each school will be responsible for monitoring the participation of its coaches in the concussion management course, and shall keep a record of those who participate.

I HAVE READ THIS FORM AND I UNDERSTAND THE FACTS PRESENTED IN IT.

SIGNED: _____ _____

(Student) **(Parent or Guardian)**

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: _____

- *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?

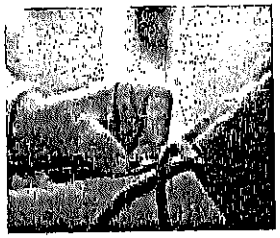
In more than a third of these sudden cardiac deaths, there were warning signs that were not reported or taken seriously. Warning signs are:

- 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
- Being unable to keep up with friends due to shortness of breath

What are the current recommendations for screening young athletes?

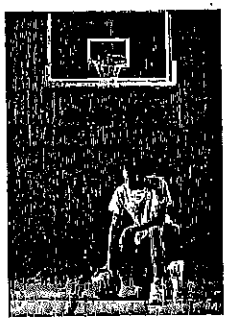
New Jersey requires all school athletes to be examined by their primary care physician ("medical home") or school physician at least once per year. The New Jersey Department of Education requires use of the specific Annual Athletic Pre-Participation Physical Examination Form.

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.



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).

The American Academy of Pediatrics/New Jersey Chapter recommends that schools:

- Have an AED available at every sports event (three minutes total time to reach and return with the AED)
- Have personnel available who are trained in AED use present at practices and games.
- Have coaches and athletic trainers trained in basic life support techniques (CPR)
- Call 911 immediately while someone is retrieving the AED.

Website Resources

- Sudden Death in Athletes at;
  www.suddendeathathletes.org
- 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) 609-292-4469
www.state.nj.us/education/

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

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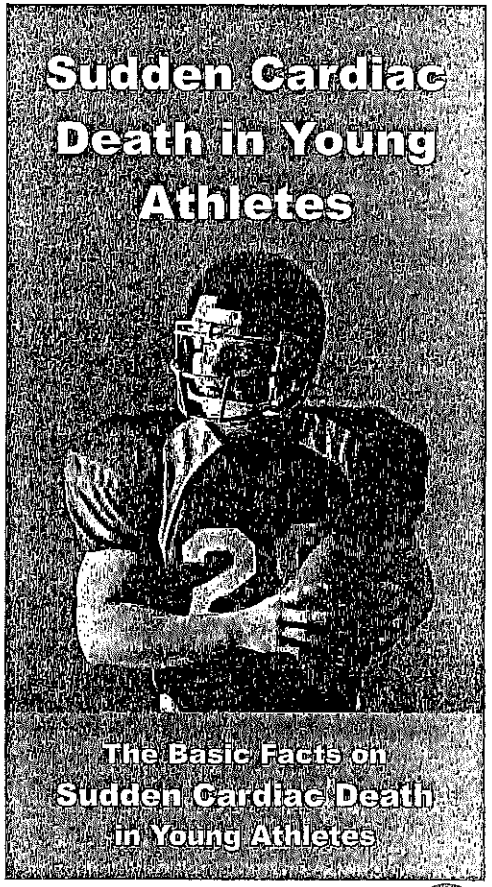

American Academy of Pediatrics
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New Jersey Chapter

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).