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 a	ind Allergies:	Please list all of the prescrip	tion and over-the-counter medic	icines and supplements (herbal and nutritional) that you are currently taking
Do you have	any allergies? s	☐ Yes ☐ No If ye ☐ Pollen:	es, please identify specific allerg s	gy below. I Food

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

GENERAL QUESTIONS	Yes	No	MEDICAL QUESTIONS	Yes	No
1. Has a doctor ever denied or restricted your participation in sports for any reason?			26. Do you cough, wheeze, or have difficulty breathing during or after exercise?		
2. Do you have any ongoing medical conditions? If so, please identify			27. Have you ever used an inhaler or taken asthma medicine?		
below: 🗆 Asthma 🔲 Anemia 🖾 Diabetes 🖾 Infections			28. Is there anyone in your family who has asthma?		
Other:			29. Were you born without or are you missing a kidney, an eye, a testicle (males), your spleen, or any other organ?		
4. Have you ever had surgery?			30. Do you have groin pain or a painful bulge or hernia in the groin area?		
HEART HEALTH QUESTIONS ABOUT YOU	Yes	No	31. Have you had infectious mononucleosis (mono) within the last month?		
5. Have you ever passed out or nearly passed out DURING or			32. Do you have any rashes, pressure sores, or other skin problems?		
AFTER exercise?			33. Have you had a herpes or MRSA skin infection?		
 Have you ever had discomfort, pain, tightness, or pressure in your about during quartice? 			34. Have you ever had a head injury or concussion?		
chest during exercise? 7. Does your heart ever race or skip beats (irregular beats) during exercise?			35. Have you ever had a hit or blow to the head that caused confusion, prolonged headache, or memory problems?		
8. Has a doctor ever told you that you have any heart problems? If so,			36. Do you have a history of seizure disorder?		
check all that apply:			37. Do you have headaches with exercise?		
High blood pressure High cholesterol Kawasaki disease Other:			38. Have you ever had numbness, tingling, or weakness in your arms or legs after being hit or falling?		
9. Has a doctor ever ordered a test for your heart? (For example, ECG/EKG, echocardiogram)			39. Have you ever been unable to move your arms or legs after being hit or falling?		
10. Do you get lightheaded or feel more short of breath than expected			40. Have you ever become ill while exercising in the heat?		
during exercise?			41. Do you get frequent muscle cramps when exercising?		
11. Have you ever had an unexplained seizure?			42. Do you or someone in your family have sickle cell trait or disease?		
12. Do you get more tired or short of breath more quickly than your friends			43. Have you had any problems with your eyes or vision?		
during exercise?			44. Have you had any eye injuries?		
HEART HEALTH QUESTIONS ABOUT YOUR FAMILY	Yes	No	45. Do you wear glasses or contact lenses?		
 Has any family member or relative died of heart problems or had an unexpected or unexplained sudden death before age 50 (including 			46. Do you wear protective eyewear, such as goggles or a face shield?		
drowning, unexplained car accident, or sudden infant death syndrome)?			47. Do you worry about your weight?		
14. Does anyone in your family have hypertrophic cardiomyopathy, Marfan syndrome, arrhythmogenic right ventricular cardiomyopathy, long QT			48. Are you trying to or has anyone recommended that you gain or lose weight?		
syndrome, short QT syndrome, Brugada syndrome, or catecholaminergic polymorphic ventricular tachycardia?			49. Are you on a special diet or do you avoid certain types of foods?		
15. Does anyone in your family have a heart problem, pacemaker, or			50. Have you ever had an eating disorder?		
implanted defibrillator?			51. Do you have any concerns that you would like to discuss with a doctor?		
16. Has anyone in your family had unexplained fainting, unexplained			FEMALES ONLY		
seizures, or near drowning?			52. Have you ever had a menstrual period?		
BONE AND JOINT QUESTIONS	Yes	No	53. How old were you when you had your first menstrual period?		
17. Have you ever had an injury to a bone, muscle, ligament, or tendon that caused you to miss a practice or a game?			54. How many periods have you had in the last 12 months? Explain "yes" answers here		
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?			1		
23. Do you have a bone, muscle, or joint injury that bothers you?			1		
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?			1		

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

©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.

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 inf	erested in playing				
				Yes	No
6. Do you regularly use a br	ace, assistive device, or prosthe	tic?			
7. Do you use any special b	race or assistive device for sport	s?			
8. Do you have any rashes,	8. Do you have any rashes, pressure sores, or any other skin problems?				
9. Do you have a hearing los	9. Do you have a hearing loss? Do you use a hearing aid?				
10. Do you have a visual imp	airment?				
11. Do you use any special d	11. Do you use any special devices for bowel or bladder function?				
12. Do you have burning or d	12. Do you have burning or discomfort when urinating?				
13. Have you had autonomic	13. Have you had autonomic dysreflexia?				
14. Have you ever been diagr	losed with a heat-related (hyper	thermia) or cold-related (hypothermia) illne	ss?		
15. Do you have muscle spas	ticity?				
16. Do you have frequent sei	zures that cannot be controlled t	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 ____

©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

PREPARTICIPATION PHYSICAL EVALUATION PHYSICAL EXAMINATION FORM

Name

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). EVAMINATION

EXAMINATION					
Height Weight		Male	□ Female		
BP / (/)	Pulse	Vision R	20/	L 20/ Cor	rrected 🗆 Y 🗆 N
MEDICAL			NORMAL	ABNORN	IAL FINDINGS
 Appearance Marfan stigmata (kyphoscoliosis, high-arched pr arm span > height, hyperlaxity, myopia, MVP, ao 		iodactyly,			
Eyes/ears/nose/throat Pupils equal Hearing 					
Lymph nodes					
Heart ^a Murmurs (auscultation standing, supine, +/- Val Location of point of maximal impulse (PMI)	salva)				
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					

, single leg nop

^aConsider ECG, echocardiogram, and referral to cardiology for abnormal cardiac history or exam.

^bConsider GU exam if in private setting. Having third party present is recommended. ^cConsider 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		
D 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		

©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. HE0503

_____ Date of birth __

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 fur	ther 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 clinical contraindications to practice and participate in the sp and can be made available to the school at the request of the the physician may rescind the clearance until the problem is (and parents/guardians).	port(s) as outlined above. A co parents. If conditions arise a	py of the physical exam is on record in my office ter the athlete has been cleared for participation,
Name of physician, advanced practice nurse (APN), physician assista	unt (PA)	Date
Address		
Signature of physician, APN, PA		
Completed Cardiac Assessment Professional Development Module		
Date Signature		

© 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

Watchung Hills Regional High School Department of Athletics 108 Stirling Road ~ Warren, NJ 07059 Phone 908-647-4800 ext. 4970

Athletic Parental Consent Form

Student's Name	Grade
Sport	School Year

CONSENT

I/we hereby give consent to my son/daughter to participate in the above listed interscholastic sports program during the above listed school year. I/we also give permission for <u>Emergency Medical Treatment</u> by the team physician, school nurse, athletic trainer, hospital, and allied medical personnel for conditions arising in athletics. I/We understand that this includes initial and post injury treatment. This includes, but is not limited to: hot/cold modalities, electrical stimulation, ultrasound, muscle strengthening and exercise to increase range of motion and agility. I/We also give permission for preventative care including taping and bracing. I/We also give permission to allow the Athletic Training staff and treating physician to exchange information relating to a specific injury and/or medical condition. This exchange can be in the form of a facsimile, email, or verbal conversation. I/we realize that such activity involves the potential for injury that is inherent in all sports. I/we acknowledge that even with the best coaching, use of the most advanced protective equipment and strict observance of school rules, injuries are still a possibility. On rare occasions these injuries can be so severe as to result in total disability, paralysis or even death. I/we acknowledge that I/we have read and understand this warning. Further, I/we will not hold Watchung Hills Regional School District, or its representatives responsible in any way for injuries that may occur to my son/daughter because of his/her participation in the sport listed above.

Further, I/we also give permission for medical information regarding my son/daughter to be shared between the districts physician, nurse, athletic trainer, athletic director, and coach.

Please circle ALL that apply:	Asthma: Yes/No Carries Inhaler: Yes/No Severe Food/Drug Allergy: Yes/No		
	Carries Epi-Pen: Yes/No Name of Food/Drug	Reaction	
	Diabetes: Yes/No Carries Medication/Snack: Yes/No		
	Seizure Disorder: Yes/No		

Signature of Parent or Guardian

Date

ACADEMIC ELIGIBILITY

I am aware the my son/daughter must meet ALL ELIGIBILITY REQUIREMENTS, both academically and medically, which includes; a physical examination which is reviewed and APPROVED by the School Medical Inspector and passing a minimum of 27.5 credits for grades 10, 11, and 12 for the Fall and Winter Athletic Participation. Spring Athletic Participation requires passing a minimum of 13.75 credits for the 1st semester for grades 9, 10, 11, and 12. I hereby give consent to my son's/daughter's participation in the sport of ______.

Athletic Parental Consent Form (continued)

MEDIA COVERAGE

I hereby grant permission for the release of videotapes, audio recordings, and photographs that could identify my child by name, to the school district and the media for the use in news stories as it pertains to my child and Watchung Hills Regional School District Athletics. I also grant permission for my child to be interviewed by the school district and the media as it pertains to Watchung Hills Regional School District athletics.

Signature of Parent or Guardian

Date

INSURANCE

The student accident insurance provided by the Watchung Hills Regional Board of Education is on an EXCESS BASIS. "Excess Basis" means your personal health insurance, individual or group, must be used <u>first</u>, as the primary carrier to satisfy the claim. The Watchung Hills Regional Board of Education will pick up medical expenses over and above your coverage.

When your son/daughter sustains an injury during a school sponsored event the following steps MUST be taken for coverage:

- Submit your Insurance plan to the physician's office for initial coverage.
- Upon receipt of your EOB (Explanation of Benefits), notify the Health Office at WHRHS 908-647-4800 ext. 4877.
- You will receive a copy of the Accident/Incident report filed at the time of injury, school insurance forms, and a cover letter with instructions. Please complete all forms and submit as directed.

I have read and understand the procedure outlined to be used in case of an accident. Also, I understand that my accident insurance is "primary" coverage, and that coverage provided by the Watchung Hills Regional Board of Education is strictly "Excess Basis."

Signature of Parent or Guardian

Date

Please complete both sides of this form and return with the physical forms to the nurse's mail box.

Parents' Code of Conduct/Agreement

Parental support is critical to the success of all our sports programs. Through your encouragement and good example, you can help assure that all the young men and women learn good sportsmanship and self-discipline. At Watchung Hills, young people learn to work together, to sacrifice for the good of the team, to enjoy winning and deal appropriately with defeat, all while becoming physically fit and healthy. Best of all they have fun.

Parents will show good sportsmanship and respect to coaches, players, other teams, other parents, and game officials at all times.

* Parents are encouraged to cheer on the warrior players and show good sportsmanship for good play of our opponents.

- * No parent shall curse, swear, or use any bad language during practices or games.
- * No parent will argue with other parents, coaches, other team players or officials.
- * Parents will maintain self-control at all times.
- * Disrespect to any coaches, other parents, opponents, or officials will not be acceptable.
- * Negative or disparaging type public comments will be unacceptable.

Parents are encouraged to talk with coaches if they have questions or concerns about the program, and follow the chain of command which is:

Talk to the Coach
 Talk to the Director of Athletics

3. Talk to the Principal

These conversations should be conducted in the following manner:

* Always in private.

- * Always professional.
- * Always with player and team as focal point.
- * Parents are encouraged to allow 24 hours cooling off period to pass prior to confronting coaches with issues.

It is your responsibility to recognize and abide by any and all rules and regulations set forth by the venue hosting the event.

I agree that I have read and understood the rules and guidelines as set forth in the "Parents Code of Conduct". Further, I understand that should I fail to abide by the aforementioned guidelines, I may be subject to disciplinary action that could include, need not be progressive and may not be limited to the following:

* Verbal warning by official, head coach, high school administrator, or police.

* Written warning.

- * Game(s) suspension with written documentation of incident kept on file.
- * Season Suspension.

Players Name____

Agreed to by:

Print Name Date Parent/Guardian

Signature Parent/Guardian Date

Athlete Code of Conduct

The purpose of the Code of Conduct is to establish and maintain a high standard of athletic behavior that will ensure the safety and well-being of all athletes and coaches during training and competition. All athletes are expected to abide by this code of conduct.

I,_____ by signing this document, indicate that I have read, understand, and agree to honor and support Watchung Hills Athletics by adhering to the school's Athletic Code of Conduct as stated below.

* I will demonstrate good sportsmanship at all times.

* I will be respectful by using appropriate language in appropriate tones when interacting with other athletes, coaches, officials, parents, and spectators.

* I will not use inappropriate language (swearing) around athletes or coaches.

* I will not taunt, use obscene gestures, or engage in boastful celebrations that demean fellow athletes, coaches, or staff.

* I will treat everyone fairly regardless of gender, ethnic origin, race, religion, or sexual orientation.

* I will treat all athletes, coaches, officials, parents, and spectators with dignity and respect.

* I will not use, or condone the use of tobacco products, drugs, or alcoholic beverages.

* I will abide by all rules and regulations set down by the coach and the athletic program.

* I will be respectful by not fighting or damaging the property of others.

I understand that should I fail to abide by the aforementioned guidelines, I may be subject to disciplinary action that may include:

* 1st offense - suspended from all extra-curricular activities/sports for 2 weeks.

*2nd offense - suspended from all extra-curricular activities/sports for 3 months.

* Third Offense - suspended from all extra-curricular activities/sports for 6 months.

Athlete's Signature:_____ Date_____

Parent/Guardian:	
Date	



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

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.

<u>Student-Athletes who have sustained a concussion should complete a graduated return-to-play before</u> 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 studentathlete'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/in	<u>dex.html</u>	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

Website Resources

- Sudden Death in Athletes www.cardiachealth.org/sudden-death-inathletes
- 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) 609-292-5939 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

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: 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



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 fibroo-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.

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).

Effective September 1, 2014, the New Jersey Department of Education requires that all public and nonpublic schools grades K through 12 shall:

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

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:_____