## Veritas Christian Academy Athletics



### **Athletic Health Forms**

The State of NJ requires the following documents to be distributed annually to every student-athlete in any grade level, prior to participation in an athletic activity, in each school district and nonpublic school that participates in interscholastic sports, intramural sports, or cheerleading program. These forms must be completed before the student athlete will be allowed to participate in athletics at Veritas Christian Academy.

\*Please note, the State of NJ has made changes to a few of these forms\* The first two forms need to be completed and signed by your health care provider, so please be sure to print them out and bring them with you to your appointment.

- 1. <u>Preparticipation Physical Evaluation Form</u>. This form has changed and must now be filled out and kept by the health care provider completing the physical examination.
- 2. <u>Preparticipation Physical Evaluation Medical Eligibility Form.</u> This is a new form that must be completed by your health care provider and returned to school.
- 3. NJ Health History Update Form. This form must be completed if the athlete's physical took place within the last 365 days (so you are unable to schedule another exam) and is more than 90 days old.
- 4. Opioid Use and Misuse Fact Sheet must be read and signed by a parent and by the athlete and returned to school.
- 5. <u>Concussion Information Fact Sheet</u> must be read and signed by a parent and by the athlete and returned to school.
- 6. <u>Sudden Cardiac Death in Young Athletes Fact Sheet</u> must be read and signed by a parent and by the athlete and returned to school.
- 7. <u>Sports-Related Eye Injuries Fact Sheet for Parents/Guardians</u>. This form is only for informational purposes and does not need to be signed.

If you have any questions about any of these forms, please do not hesitate to reach out.

Janeen Dorrity

Athletic Director Veritas Christian Academy jdorrity@veritasnj.org This form should be maintained by the healthcare provider completing the physical exam (medical home). It should not be shared with schools. The medical eligibility form is the only form that should be submitted to a school. The physical exam must be completed by a healthcare provider who is a licensed physician, advanced practice nurse or physician assistant who has completed the Student-Athlete Cardiac Assessment Professional Development module hosted by the New Jersey Department of Education.

### ■ PREPARTICIPATION PHYSICAL EVALUATION (Interim Guidance)

### **HISTORY FORM**

Note: Complete and sign this form (with your pare Name:			pointment. te of birth:	
Date of examination:				
Sex assigned at birth (F, M, or intersex):	How do you identif	y your gender? (F, I	M, non-binary, or anoth	ner gender):
Have you had COVID-19? (check one): □ Y	□N			
Have you been immunized for COVID-19? (chec	ck one): □Y □N		n had: □ One shot □ □ Booster date(s)	
List past and current medical conditions.				
Have you ever had surgery? If yes, list all past sur	rgical procedures			
Medicines and supplements: List all current preso	criptions, over-the-co	unter medicines, a	nd supplements (herbal	and nutritional).
Do you have any allergies? If yes, please list all	your allergies (ie, me	dicines, pollens, fa	ood, stinging insects).	
Patient Health Questionnaire Version 4 (PHQ-4)				
Over the last 2 weeks, how often have you been				
	Not at all	Several days	Over half the days	Nearly every day
Feeling nervous, anxious, or on edge	0	1	2	3
Not being able to stop or control worrying	0	1	2	3
Little interest or pleasure in doing things	0	1	2	3
Feeling down, depressed, or hopeless	0	1	2	3
(A sum of ≥3 is considered positive on eith	er subscale [question	s 1 and 2, or ques	tions 3 and 4] for scree	ening purposes.)

(Ехр	IERAL QUESTIONS lain "Yes" answers at the end of this form. Circle stions if you don't know the answer.)	Yes	No
1.	Do you have any concerns that you would like to discuss with your provider?		
2.	Has a provider ever denied or restricted your participation in sports for any reason?		
3.	Do you have any ongoing medical issues or recent illness?		
HEA	HEART HEALTH QUESTIONS ABOUT YOU		
4.	Have you ever passed out or nearly passed out during or after exercise?		
5.	Have you ever had discomfort, pain, tightness, or pressure in your chest during exercise?		
6.	Does your heart ever race, flutter in your chest, or skip beats (irregular beats) during exercise?		
7.	Has a doctor ever told you that you have any heart problems?		
8.	Has a doctor ever requested a test for your heart? For example, electrocardiography (ECG) or echocardiography.		

	ART HEALTH QUESTIONS ABOUT YOU ONTINUED)		Yes	No
9.	Do you get light-headed or feel shorter of breathan your friends during exercise?	ath		
10.	Have you ever had a seizure?			
HEA	RT HEALTH QUESTIONS ABOUT YOUR FAMILY	Unsure	Yes	No
11.	Has any family member or relative died of heart problems or had an unexpected or unexplained sudden death before age 35 years (including drowning or unexplained car crash)?			
12.	Does anyone in your family have a genetic heart problem such as hypertrophic cardiomyopathy (HCM), Marfan syndrome, arrhythmogenic right ventricular cardiomyopathy (ARVC), long QT syndrome (LQTS), short QT syndrome (SQTS), Brugada syndrome, or catecholaminergic polymorphic ventricular tachycardia (CPVT)?			
13.	Has anyone in your family had a pacemaker or an implanted defibrillator before age 35?			

O	NE AND JOINT QUESTIONS	Yes	No	MEDIC	CAL QUESTIONS (CONTINUED)	
4.	Have you ever had a stress fracture or an injury to a bone, muscle, ligament, joint, or tendon that caused you to miss a practice or game?			26. A	Do you worry about your weight? Are you trying to or has anyone recommend you gain or lose weight?	ded that
15.	Do you have a bone, muscle, ligament, or joint injury that bothers you?			27. A	Are you on a special diet or do you avoid c ypes of foods or food groups?	ertain
MEI	DICAL QUESTIONS	Yes	No	28. F	lave you ever had an eating disorder?	
16.	Do you cough, wheeze, or have difficulty breathing during or after exercise?				TRUAL QUESTIONS  tave you ever had a menstrual period?	N/A
17.	Are you missing a kidney, an eye, a testicle, your spleen, or any other organ?			30. F	How old were you when you had your first to period?	menstrual
18.	Do you have groin or testicle pain or a painful bulge or hernia in the groin area?				When was your most recent menstrual perion How many periods have you had in the pas	
19.	Do you have any recurring skin rashes or rashes that come and go, including herpes or methicillin-resistant <i>Staphylococcus aureus</i> (MRSA)?			m	n "Yes" answers here.	
20.	Have you had a concussion or head injury that caused confusion, a prolonged headache, or memory problems?					
21.	Have you ever had numbness, had tingling, had weakness in your arms or legs, or been unable to move your arms or legs after being hit or falling?					
22.	Have you ever become ill while exercising in the heat?					
23.	Do you or does someone in your family have sickle cell trait or disease?					
	Have you ever had or do you have any problems					

Yes No

Yes No

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Signature of athlete: \_\_

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

Signature of parent or guardian:

This form should be maintained by the healthcare provider completing the physical exam (medical home). It should not be shared with schools. The Medical Eligibility Form is the only form that should be submitted to a school.

## ■ PREPARTICIPATION PHYSICAL EVALUATION

#### ATHLETES WITH DISABILITIES FORM: SUPPLEMENT TO THE ATHLETE HISTORY

Name:Date of birth:		
I Too of Booking.		
1. Type of disability:		
Date of disability:     3. Classification (if available):		
4. Cause of disability (birth, disease, injury, or other):		
5. List the sports you are playing:		
5. List the sports you are playing.	Voc	No
( De very regularly, use a house, on essistive device, on a preschatic device for deily estimities?	Yes	No
<ul><li>6. Do you regularly use a brace, an assistive device, or a prosthetic device for daily activities?</li><li>7. Do you use any special brace or assistive device for sports?</li></ul>	+	
	+	
<ul><li>8. Do you have any rashes, pressure sores, or other skin problems?</li><li>9. Do you have a hearing loss? Do you use a hearing aid?</li></ul>	+	
10. Do you have a visual impairment?	+	
Do you use any special devices for bowel or bladder function?	+	
Do you use any special devices for bower or bladder function:  12. Do you have burning or discomfort when urinating?	+	
13. Have you had autonomic dysreflexia?	+	
14. Have you ever been diagnosed as having 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 whether you have ever had any of the following conditions:		
	Yes	No
Atlantoaxial instability		110
Radiographic (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 questions on this form are complete and Signature of athlete:  Signature of parent or guardian:	correc	t.
Date:		

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### ■ PREPARTICIPATION PHYSICAL EVALUATION (Interim Guidance)

#### 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, e-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-enhancing 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 (Q4-Q13 of History Form). **EXAMINATION** Height: Weight: BP: Pulse: Vision: R 20/ L 20/ Corrected: □ Y $\square N$ **COVID-19 VACCINE** Previously received COVID-19 vaccine: □ Y □ N Administered COVID-19 vaccine at this visit: 🖂 Y 💢 N 🛮 If yes: 🖂 First dose 🖂 Second dose 🖂 Third dose 🗀 Booster date(s) **MEDICAL NORMAL ABNORMAL FINDINGS** Appearance Marfan stigmata (kyphoscoliosis, high-arched palate, pectus excavatum, arachnodactyly, hyperlaxity, myopia, mitral valve prolapse [MVP], and aortic insufficiency) Eyes, ears, nose, and throat Pupils equal Hearing Lymph nodes Hearta Murmurs (auscultation standing, auscultation supine, and ± Valsalva maneuver) Abdomen Skin Herpes simplex virus (HSV), lesions suggestive of methicillin-resistant Staphylococcus aureus (MRSA), or Neurological MUSCULOSKELETAL **NORMAL ABNORMAL FINDINGS** Neck Back Shoulder and arm Elbow and forearm Wrist, hand, and fingers Hip and thigh Knee Leg and ankle Foot and toes Double-leg squat test, single-leg squat test, and box drop or step drop test a Consider electrocardiography (ECG), echocardiography, referral to a cardiologist for abnormal cardiac history or examination findings, or a combination of those. Name of health care professional (print or type): \_ Date: Address: Phone:

, MD, DO, NP, or PA

Signature of health care professional:

#### Preparticipation Physical Evaluation Medical Eligibility Form

The Medical Eligibility Form is the only form that should be submitted to school. It should be kept on file with the student's school health record.

Studen	ent Athlete's Name	Date of Birth
Date of	of Exam	
0	o Medically eligible for all sports without restriction	
0	Medically eligible for all sports without restriction with r	ecommendations for further evaluation or treatment of
0	Medically eligible for certain sports	
0	Not medically eligible pending further evaluation	
0	O Not medically eligible for any sports	
Recom	ommendations:	
athlete the phy conditi	te does not have apparent clinical contraindications to practice hysical examination findings- are on record in my office and of the contract	on this form and completed the preparticipation physical evaluation. The e and can participate in the sport(s) as outlined on this form. A copy of can be made available to the school at the request of the parents. If the physician may rescind the medical eligibility until the problem is to the athlete (and parents or guardians).
Signat	ature of physician, APN, PA	Office stamp (optional)
Addres	ress:	
Name	e of healthcare professional (print)	<u> </u>
I certif Educat		velopment Module developed by the New Jersey Department of
Signat	ature of healthcare provider	
	Shared He	alth Information
Allerg	gies	
Medica	ications:	
Other in	information:	
Emergen	ency Contacts:	

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## **New Jersey Department of Education Health History Update Questionnaire**

Name of School:

Date:

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.

	C		
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? Y If yes, describe in detail:	Yes No		
<ol> <li>Sustained a concussion, been unconscious or lost mem</li> <li>If yes, explain in detail:</li> </ol>	ory from a blow to the hea	ad? Yes N	o
3. Broken a bone or sprained/strained/dislocated any mus If yes, describe in detail.	scle or joints? Yes No		
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 If yes, explain	heart?" Yes No		
6. Has there been a recent history of fatigue and unusual t	tiredness? Yes No		
7. Been hospitalized or had to go to the emergency room?  If yes, explain in detail	? Yes No		
8. Since the last physical examination, has there been a su 50 had a heart attack or "heart trouble?" Yes No	udden death in the family	or has any men	mber of the family under age
9. Started or stopped taking any over-the-counter or presc	cribed medications? Yes	No	
10. Been diagnosed with Coronavirus (COVID-19)? Yes	s No		
If diagnosed with Coronavirus (COVID-19), was yo	ur son/daughter symptom	atic? Yes	No
If diagnosed with Coronavirus (COVID-19), was yo	our son/daughter hospitaliz	zed? Yes	No

 ${\bf Please} \ {\bf Return} \ {\bf Completed} \ {\bf Form} \ {\bf to} \ {\bf the} \ {\bf School} \ {\bf Nurse's} \ {\bf Office}$ 

Signature of parent/guardian:



## 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."

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.
- 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.

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."

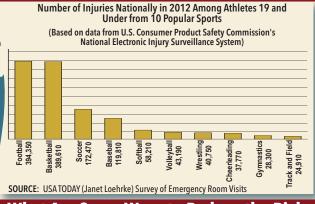




STATE OF NEW JERSEY DEPARTMENT OF HEALTH

NJSIAA SPORTS MEDICAL **ADVISORY COMMITTEE** 





## **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.5

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.6

### 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 guiz 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.

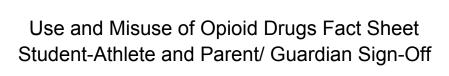
Partnership for a Drug Free New Jersey is New Jersey's anti-drug alliance created to localize and strengthen drug-prevention media efforts to prevent unlawful drug use, especially among young people.

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

An online version of this fact sheet is available on the New Jersey Department of Education's Alcohol, Tobacco, and Other Drug Use webpage. Updated Jan. 30, 2018.





In accordance with *N.J.S.A 18A:40-41.10*, public school districts, approved private schools for students with disabilities, and non-public schools participating in an interscholastic sports program must distribute this <u>Opioid Use and Misuse Educational Fact Sheet</u> to all student-athletes. In addition, schools and districts must obtain a signed acknowledgement of receipt of the fact sheet, from each student-athlete, and for students under the age of 18, the parent or guardian must 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 season.

I/We acknowledge that we received and reviewed the Educational Fact Sheet on the Use and

Name of School: Veritas Christian Academy

Misuse of Opioid Drugs.	
Student Name:	
Student Signature:	
Date:	
Parent/Guardian's Name:	
Parent/Guardian's Signature:	

### **Website Resources**

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

## **Collaborating Agencies:**

#### American Academy of Pediatrics New Jersey Chapter

3836 Quakerbridge Road, Suite 108 Hamilton, NJ 08619 (p) 609-842-0014 (f) 609-842-0015 www.aapnj.org



#### **American Heart Association**

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



#### **New Jersey Department of Education**

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



#### **New Jersey Department of Health**

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

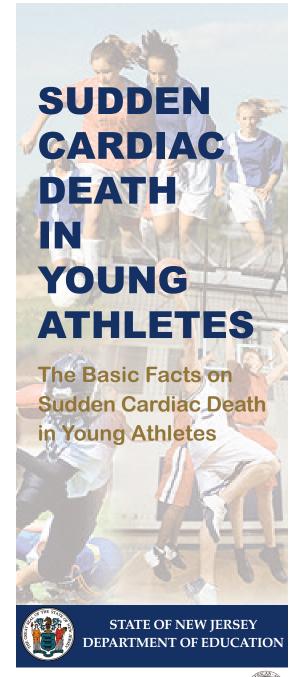


Lead Author: American Academy of Pediatrics, New Jersey Chapter

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



American Academy of Pediatrics dedicated to the health of all children\*





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;
- $\bullet$  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.



# 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:

SPORTS-RELATED EYE INJURIES:

AN EDUCATIONAL FACT SHEET FOR PARENTS



Participating in sports and recreational activities is an important part of a healthy, physically active lifestyle for children. Unfortunately, injuries can, and do, occur. Children are at particular risk for sustaining a sports-related eye injury and most of these injuries can be prevented. Every year, more than 30,000 children sustain serious sports-related eye injuries. Every 13 minutes, an emergency room in the United States treats a sports-related eye injury. According to the National Eye Institute, the sports with the highest rate of eye injuries are: baseball/softball, ice hockey, racquet sports, and basketball, followed by fencing, lacrosse, paintball and boxing.

Thankfully, there are steps that parents can take to ensure their children's safety on the field, the court, or wherever they play or participate in sports and recreational activities.

Prevention of Sports-Related Eye Injuries

Approximately 90% of sports-related eye injuries can be prevented with simple precautions, such as using protective eyewear.<sup>2</sup> Each sport has a certain type of recommended protective eyewear, as determined by the American Society for Testing and Materials (ASTM). Protective eyewear should sit comfortably on the face. Poorly fitted equipment may be uncomfortable, and may not offer the best eye protection. Protective eyewear for sports includes, among other things, safety goggles and eye guards, and it should be made of polycarbonate lenses, a strong, shatterproof plastic. Polycarbonate lenses are much stronger than regular lenses.<sup>3</sup>

Health care providers (HCP), including family physicians, ophthalmologists, optometrists, and others, play a critical role in advising students, parents and guardians about the proper use of protective eyewear. To find out what kind of eye protection is recommended, and permitted for your child's sport, visit the National Eye Institute at http://www.nei.nih.gov/sports/findingprotection.asp. Prevent Blindness America also offers tips for choosing and buying protective eyewear at http://www.preventblindness.org/tips-buying-sports-eye-protectors, and http://www.preventblindness.org/ recommended-sports-eye-protectors.

It is recommended that all children participating in school sports or recreational sports wear protective eyewear. Parents and coaches need to make sure young athletes protect their eyes, and properly gear up for the game. Protective eyewear should be part of any uniform to help reduce the occurrence of sports-related eye injuries. Since many youth teams do not require eye protection, parents may need to ensure that their children wear safety glasses or goggles whenever they play sports. Parents can set a good example by wearing protective eyewear when they play sports.

<sup>&</sup>lt;sup>1</sup> National Eye Institute, National Eye Health Education Program, Sports-Related Eye Injuries: What You Need to Know and Tips for Prevention, www.nei.nih.gov/sports/pdf/sportsrelatedeyeInjuries.pdf, December 26, 2013.

<sup>&</sup>lt;sup>2</sup> Rodriguez, Jorge O., D.O., and Lavina, Adrian M., M.D., Prevention and Treatment of Common Eye Injuries in Sports, http://www.aafp.org/afp/2003/0401/p1481.html, September 4, 2014; National Eye Health Education Program, Sports-Related Eye Injuries: What You Need to Know and Tips for Prevention, www.nei.nih.gov/sports/pdf/sportsrelatedeyeInjuries.pdf, December 26, 2013.

Bedinghaus, Troy, O.D., Sports Eye Injuries, http://vision.about.com/od/emergencyeyecare/a/Sports\_Injuries.htm, December 27, 2013.

The most common types of eye injuries that can result from sports injuries are blunt injuries, corneal abrasions and penetrating injuries.

- Most Common Types of Eye Injuries
  - ◆ Blunt injuries: Blunt injuries occur when the eye is suddenly compressed by impact from an object. Blunt injuries, often caused by tennis balls, racquets, fists or elbows, sometimes cause a black eye or hyphema (bleeding in front of the eye). More serious blunt injuries often break bones near the eye, and may sometimes seriously damage important eye structures and/or lead to vision loss.
  - ◆ Corneal abrasions: Corneal abrasions are painful scrapes on the outside of the eye, or the cornea. Most corneal abrasions eventually heal on their

own, but a doctor can best assess the extent of the abrasion, and may prescribe medication to help control the pain. The most common cause of a sports-related corneal abrasion is being poked in the eye by a finger.

- ◆ Penetrating injuries: Penetrating injuries are caused by a foreign object piercing the eye. Penetrating injuries are very serious, and often result in severe damage to the eye. These injuries often occur when eyeglasses break while they are being worn. Penetrating injuries must be treated quickly in order to preserve vision.⁴
- Pain when looking up and/or down, or difficulty seeing;
- Tenderness;
- Sunken eye;
- Double vision:
- Severe eyelid and facial swelling;
- Difficulty tracking;

Signs or Symptoms of an Eye Injury



- The eye has an unusual pupil size or shape;
- Blood in the clear part of the eye;
- Numbness of the upper cheek and gum; and/or
- Severe redness around the white part of the eye.

What to do if a Sports-Related Eye Injury Occurs

If a child sustains an eye injury, it is recommended that he/she receive immediate treatment from a licensed HCP (e.g., eye doctor) to reduce the risk of serious damage, including blindness. It is also recommended that the child, along with his/her parent or guardian, seek guidance from the HCP regarding the appropriate amount of time to wait before returning to sports competition or practice after sustaining an eye injury. The school nurse and the child's teachers should also be notified when a child sustains an eye injury. A parent or guardian should also provide the school nurse with a physician's note detailing the nature of the eye injury, any diagnosis, medical orders for

the return to school, as well as any prescription(s) and/or treatment(s) necessary to promote healing, and the safe resumption of normal activities, including sports and recreational activities.

According to the American Family Physician Journal, there are several guidelines that should be followed when students return to play after sustaining an eye injury. For

Return to Play and Sports

example, students who have sustained significant ocular injury should receive a full examination and clearance by an ophthalmologist or optometrist. In addition, students should not return to play until the period of time recommended by their HCP has elapsed. For more minor eye injuries, the athletic trainer may determine that

it is safe for a student to resume play based on the nature of the injury, and how the student feels. No matter what degree of eye injury is sustained, it is recommended that students wear protective eyewear when returning to play and immediately report any concerns with their vision to their coach and/or the athletic trainer.

Additional information on eye safety can be found at http://isee.nei.nih.gov and http://www.nei.nih.gov/sports.