ATTENTION PARENT/GUARDIAN: The preparticipation 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

Name			Date of birth		
			Sport(s)		
Medicines and Allergies: Please list all of the prescription and over-	the-co	unter m	edicines and supplements (herbal and nutritional) that you are currently	taking	
Do you have any allergies? ☐ Yes ☐ No If yes, please ident☐ Medicines ☐ Pollens	tify spe	ecific all	lergy below.  □ Food □ Stinging Insects		
xplain "Yes" answers below. Circle questions you don't know the ans			The state of the s	l vos	l w
GENERAL QUESTIONS	Yes	No	MEDICAL QUESTIONS   26. Do you cough, wheeze, or have difficulty breathing during or	Yes	N
Has a doctor ever denied or restricted your participation in sports for any reason?			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 Other:			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		├
3. Have you ever spent the night in the hospital?			(males), your spicen, or any other organ?		ļ
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 AFTER exercise?			32. Do you have any rashes, pressure sores, or other skin problems?  33. Have you had a herpes or MRSA skin infection?		┢
Have you ever had discomfort, pain, tightness, or pressure in your			33. Have you had a herpes of MRSA skill infection?  34. Have you ever had a head injury or concussion?		
chest during exercise?			35. Have you ever had a hit or blow to the head that caused confusion,		
7. Does your heart ever race or skip beats (irregular beats) during exercise?			prolonged headache, or memory problems?		<u> </u>
Has a doctor ever told you that you have any heart problems? If so, check all that apply:			36. Do you have a history of seizure disorder?		
☐ High blood pressure ☐ A heart murmur			37. Do you have headaches with exercise?		<u> </u>
☐ High cholesterol ☐ A heart infection ☐ Kawasaki disease Other:			38. Have you ever had numbness, tingling, or weakness in your arms or legs after being hit or falling?		
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?  41. Do you get frequent muscle cramps when exercising?		┢
during exercise?  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?	<u> </u>	
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			48. Are you trying to or has anyone recommended that you gain or lose weight?		
syndrome, arrhythmogenic right ventricular cardiomyopathy, long QT syndrome, Brugada syndrome, or catecholaminergic			49. Are you on a special diet or do you avoid certain types of foods?		
polymorphic ventricular tachycardia?			50. Have you ever had an eating disorder?		
Does anyone in your family have a heart problem, pacemaker, or implanted defibrillator?			51. Do you have any concerns that you would like to discuss with a doctor?	<b></b>	<b> </b>
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?		
18. Have you ever had any broken or fractured bones or dislocated joints?			Explain "yes" answers here		
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 attantoaxial instability? (Down syndrome or dwarfism)					
22. Do you regularly use a brace, orthotics, or other assistive device?					
Do you regularly use a brace, orthotics, or other assistive device?     Do you have a bone, muscle, or joint injury that bothers you?					

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### ■ PREPARTICIPATION PHYSICAL EVALUATION

### THE ATHLETE WITH SPECIAL NEEDS: SUPPLEMENTAL HISTORY FORM

Date	of Exam					
Nam	e			Date of bird	th	
Sex	Δпе	Grade	School	Sport(s)		
	Type of disability					
_	Date of disability					
3.	Classification (if available)					
		sease, accident/trauma, other)				
5.	List the sports you are inter	ested in playing				
					Yes	No
		e, assistive device, or prostheti				
<b></b>		ce or assistive device for sports				
		essure sores, or any other skin	problems?			
	Do you have a hearing loss' Do you have a visual impair					
		ices for bowel or bladder functi	ion?			
—	Do you have burning or disc					
	Have you had autonomic dy	· · · · · · · · · · · · · · · · · · ·				
			hermia) or cold-related (hypothermia) illnes	s?		•••••
	Do you have muscle spastic					
		res that cannot be controlled by	y medication?			
	aln "yes" answers here					
	700					
Dies	ee indicate if you have eve	r had any of the following.				
1164	se maicate ii you nave eve	i nac any or are tonouning.			Yes	No
Atte	intoaxial instability					
1	ay evaluation for atlantoaxia	l instability				
*****	ocated joints (more than on	··········				
	y bleeding					
Enl	arged spleen					
Her	patitis					
Ost	eopenia or osteoporosis					
Diff	iculty controlling bowet					
Diff	iculty controlling bladder					~~~
Nu	mbness or tingling in arms o	r hands				
-	nbness or tingling in legs or	feet				
	akness in arms or hands					
	akness in legs or feet					
	ent change in coordination					
-	ent change in ability to wall					
<u> </u>	na bifida ex allergy		1111			
Lat	ex anergy					1
Exp	ain "yes" answers here					
			ars to the above questions are complete	and correct.		
			ers to the above questions are complete	and correct.		
1 he	reby state that, to the best			and correct.	Date	

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

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

### PREPARTICIPATION PHYSICAL EVALUATION

PHYSICIAN REMINDERS

### PHYSICAL EXAMINATION FORM

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?			
<ul> <li>Do you feel safe at your home or residence?</li> <li>Have you ever tried cigarettes, chewing tobacco, snuff, or dip?</li> </ul>			
During the past 30 days, did you use chewing tobacco, snuff, or dip?			
Do you drink alcohol or use any other drugs?			
<ul> <li>Have you ever taken anabolic steroids or used any other performance suppler</li> <li>Have you ever taken any supplements to help you gain or lose weight or impro</li> </ul>	ment?	•	
* Do you wear a seat belt, use a helmet, and use condoms?	ove your performance:		
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	NORM	IAL	ABNORMAL FINDINGS
Appearance			
<ul> <li>Marfan stigmata (kyphoscoliosis, high-arched palate, pectus excavatum, arachnodact arm span &gt; height, hyperlaxity, myopia, MVP, aortic insufficiency)</li> </ul>	tyly,		
Eyes/ears/nose/throat			
Pupils equal			
Hearing			
Lymph nodes			
Heart <sup>a</sup>			
Murmurs (auscultation standing, supine, +/- Valsalva)     Location of point of maximal impulse (PMI)			
Pulses  • Simultaneous femoral and radial pulses			
Lungs			
Abdomen			
Genitourinary (males only) <sup>b</sup>			
Skin			
HSV, lesions suggestive of MRSA, tinea corporis			
Neurologic <sup>c</sup>			81-11-110-1110-200-000-000-000-000-00-01-01-01-01-01-01-
MUSCULOSKELETAL			
Neck			
Back			
Shoulder/arm			. ,
Elbow/forearm Wrist/hand/fingers			
Hip/thigh	-		
Knee			
Leg/ankie			
Foot/toes			
Functional			
Duck-walk, single leg hop			
*Consider ECG, echocardiogram, and referral to cardiology for abnormal cardiac history or exam.  *Consider GU exam if in private setting, Having third party present is recommended,  *Consider cognitive evaluation or baseline neuropsychiatric testing if a history of significant concussion,			
☐ Cleared for all sports without restriction			
$\hfill \square$ Cleared for all sports without restriction with recommendations for further evaluation of	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 phys participate in the sport(s) as outlined above. A copy of the physical exam is on recorarise after the athlete has been cleared for participation, a physician may rescind the to the athlete (and parents/guardians).	rd in my office and can	be made available to th	e school at the request of the parents. If conditions
Name of physician, advanced practice nurse (APN), physician assistant (PA) (print/	type)		Date of exam
			Phone
Signature of physician, APN, PA			

### ■ PREPARTICIPATION PHYSICAL EVALUATION CLEARANCE FORM

Name	Sex D M D F Age Date of birth
☐ Cleared for all sports without restriction	
Cleared for all sports without restriction with recommendations for further	r evaluation or treatment for
□ Not cleared	
☐ Pending further evaluation	
☐ For any sports	
☐ For certain sports	
Reason	
Recommendations	
4.00	
	Management of the Control of the Con
EMERGENCY INFORMATION	
Allergies	
Other information	
- Color III Colo	
HCP OFFICE STAMP	SCHOOL PHYSICIAN:
	Raviowed on
	Reviewed on(Date)
	Approved Not Approved
	Signature:
1	
I have examined the above-named student and completed the policinal contraindications to practice and participate in the spo	preparticipation physical evaluation. The athlete does not present apparent ort(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 p	parents. If conditions arise after the athlete has been cleared for participation,
the physician may rescind the clearance until the problem is re (and parents/guardians).	esolved and the potential consequences are completely explained to the athlet
Name of physician, advanced practice nurse (APN), physician assistant	t (PA) Date
	Phone
Signature of physician, APN, PA	
Completed Cardiac Assessment Professional Development Module	
Date Signature	
5.g/100/0	

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

### **Nebsite Resources**

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

### **Collaborating Agencies:**

### American Academy of Pediatrics

3836 Quakerbridge Road, Suite 108 New Jersey Chapter Hamilton, NJ 08619

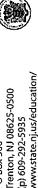
(p) 609-842-0014

(f) 609-842-0015





New Jersey Department of Education Frenton, NJ 08625-0500 (p) 609-292-5935 PO Box 500



### New Jersey Department of Health P. O. Box 360

Frenton, NJ 08625-0360 www.state.nj.us/health (p) 609-292-7837



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

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### CARDIA とこの回じること

Sudden Cardiac Death The Basic Facts on in Young Athletes



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





SUIDIDIENPOARDIAC DEATHMIN YOUNG ATHLETES

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

### What is sudden cardiac dea in the young athlete?

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

### How common is sudden death in young athletes?

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

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

## What are the most common causes?

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

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

arteries. This means that these The second most likely cause is congenital abnormalities of the coronary (con-JEN-it-al) (i.e., present from birth)

(commonly called "coronary artery blood vessels are connected to disease," which may lead to a heart heart in an abnormal way. This differs from blockages that may the main blood vessel of the occur when people get older

# SUIDIDEN CARDIAC DEATH IN YOUNG ATHLETIES

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

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

# Are there warning signs to watch for?

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

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

# What are the current recommendations for screening young athletes?

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

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

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

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

# Are there options privately available to screen for cardiac conditions?

Technology-based screening programs including a 12-lead electrocardiogram (ECG) and echocardiogram (ECHO) are noninvasive and painless options parents may consider in addition to the required

PPE. However, these procedures may be expensive and are not currently advised by the American Academy of Pediatrics and the American College of Cardiology unless the PPE reveals an indication for these tests. In addition to the expense, other limitations of technology-based tests include the possibility of "false positives" which leads to unnecessary stress for the student and parent or guardian as well as unnecessary restriction from athletic participation.

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

# When should a student athlete see a heart specialist?

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

### Can sudden cardiac death be prevented Just through proper screening?

A proper evaluation should find most, but not all, conditions that would cause sudden death in the athlete. This is because some diseases are difficult to uncover and may only develop later in life, Others can develop following a

normal screening evaluation, such as an infection of the heart muscle from a virus.

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

# Why have an AED on site during sportir 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 schoolsponsored 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



### 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:

[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

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

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:

### 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 classroomaccommodations.

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

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

- CDC Heads Up
- Keeping Heads Healthy
- National Federation of State High School Associations
- Athletic Trainers' Society of New Jersey

Signature of Student-Athlete	Print Student-Athlete's Name	Date	
Signature of Parent/Guardian	Print Parent/Guardian's Name	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.¹ 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.

Most Common

Types of Eye
Injuries

The most common types of eye injuries that can result from sports injuries are blunt injuries, corneal abrasions and penetrating 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.<sup>4</sup>
- 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.

Return to Play and Sports

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

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.