# Calvary Academy Athletic Physical Form

Important information below please read prior to obtaining a physical examination.

### **Attention Parent/Guardian:**

- Physical exams must be completed and approved by school
  within 365 days prior to first practice/try out session or any
  athletic program or camp. In addition please note: If more than
  60 days have elapsed since the last exam a new physical is not
  required; however, a Health History Update (see website for
  form) needs to be filled out by parent and approved by school
  prior to start.
- The History Form (page 1) & Cardiac sign off sheet (page 7) are to be filled out by the parent/guardian prior to the exam.
- The pre-participation physical examination & Clearance Form
   (pages 3&4) MUST be completed by a healthcare provider who
   has completed the Student-Athlete Cardiac Assessment
   Professional Development Module. Module found at Link:
   <a href="http://www.state.nj.us/education/students/safety/health/servic-es/athlete/PDModule.shtml">http://www.state.nj.us/education/students/safety/health/servic-es/athlete/PDModule.shtml</a>
- Please inquire with your Health Care Professional and ensure they sign the highlighted areas indicated on pages 3&4 to allow for school athletic clearance.

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

#### PREPARTICIPATION PHYSICAL EVALUATION

#### **HISTORY FORM**

Date of Exam							
Name			Date of birth				
ex Age _	Grade Sc	chool		Sport(s)			
Medicines and Allergi	ies: Please list all of the prescription and ov	er-the-co	unter m	edicines and supplements (herbal and nutritional) that you are currently	taking		
Do you have any allerg ☐ Medicines	ies?	entify spe	ecific all	ergy below.  □ Food □ Stinging Insects			
xplain "Yes" answers b	elow. Circle questions you don't know the a	ınswers t	0.				
GENERAL QUESTIONS		Yes	No	MEDICAL QUESTIONS	Yes	N	
Has a doctor ever deni any reason?	ed or restricted your participation in sports for			26. Do you cough, wheeze, or have difficulty breathing during or after exercise?			
	ing medical conditions? If so, please identify  ☐ Anemia ☐ Diabetes ☐ Infections	I		27. Have you ever used an inhaler or taken asthma medicine?  28. Is there anyone in your family who has asthma?  29. Wassen be muitbut as a serial and inhale or taken as the s			
3. Have you ever spent th	ne night in the hospital?			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 sur				30. Do you have groin pain or a painful bulge or hernia in the groin area?			
HEART HEALTH QUESTIO		Yes	No	31. Have you had infectious mononucleosis (mono) within the last month?		T	
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?			
6. Have you ever had dis chest during exercise?	comfort, pain, tightness, or pressure in your			34. Have you ever had a head injury or concussion?			
	ace or skip beats (irregular beats) during exercise	2		35. Have you ever had a hit or blow to the head that caused confusion,		Γ	
	you that you have any heart problems? If so,	-		prolonged headache, or memory problems?	-	1	
check all that apply:				36. Do you have a history of seizure disorder?	-	$\vdash$	
☐ High blood pressu☐ High cholesterol☐ Kawasaki disease	☐ A heart infection			37. Do you have headaches with exercise?      38. Have you ever had numbness, tingling, or weakness in your arms or legs after being hit or falling?		T	
	Other:ered a test for your heart? (For example, ECG/EKG,	-		39. Have you ever been unable to move your arms or legs after being hit or falling?			
	d 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?			
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 during exercise?	or short of breath more quickly than your friends			43. Have you had any problems with your eyes or vision?		F	
	NS ABOUT YOUR FAMILY	Yes	No	44. Have you had any eye injuries?	<b>-</b>	╀	
13. Has any family member	er or relative died of heart problems or had an			45. Do you wear glasses or contact lenses?  46. Do you wear protective eyewear, such as goggles or a face shield?	-	╁	
	ained sudden death before age 50 (including d car accident, or sudden infant death syndrome)?			47. Do you worry about your weight?			
syndrome, arrhythmog	amily have hypertrophic cardiomyopathy, Marfan genic right ventricular cardiomyopathy, long QT			48. Are you trying to or has anyone recommended that you gain or lose weight?			
syndrome, short QT sy polymorphic ventricula	/ndrome, Brugada syndrome, or catecholaminergio ar tachycardia?			49. Are you on a special diet or do you avoid certain types of foods?	-		
	amily have a heart problem, pacemaker, or		<b> </b>	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?			
	mily had unexplained fainting, unexplained			FEMALES ONLY			
seizures, or near drow		Von	Me	52. Have you ever had a menstrual period?	<u> </u>	_	
BONE AND JOINT QUEST	injury to a bone, muscle, ligament, or tendon	Yes	No	53. How old were you when you had your first menstrual period?  54. How many periods have you had in the last 12 months?	-		
	ss a practice or a game?				L		
	y broken or fractured bones or dislocated joints?			Explain "yes" answers here			
	injury that required x-rays, MRI, CT scan, orace, a cast, or crutches?						
20. Have you ever had a s	tress fracture?						
	old that you have or have you had an x-ray for neci ial instability? (Down syndrome or dwarfism)	K				_	
	brace, orthotics, or other assistive device?						
23. Do you have a bone, n	nuscle, or joint injury that bothers you?						
24. Do any of your joints b	pecome painful, swollen, feel warm, or look red?						
25. Do you have any histo	ry of juvenile arthritis or connective tissue disease	?					
hereby state that, to	the best of my knowledge, my answers t	o the abo	ove que	stions are complete and correct.			
ignature of athlete	Signatur Signatur	e of parent/g	nuardian	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.

HERSON 9-296

#### PREPARTICIPATION PHYSICAL EVALUATION

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

Date of Exam		
Name Dat	e of birth	
Sex Age Grade School Sport(s)		
Operation and the second of th		
1. Type of disability		
2. Date of disability		
3. Classification (if available)		
4. Cause of disability (birth, disease, accident/trauma, other)		
5. List the sports you are interested in playing		
	Yes	No
6. Do you regularly use a brace, assistive device, or prosthetic?		
7. Do you use any special brace or assistive device for sports?		
8. Do you have any rashes, pressure sores, or any other skin problems?		
9. Do you have a hearing loss? Do you use a hearing aid?		_
10. Do you have a visual impairment?		
11. Do you use any special devices for bowel or bladder function?		
12. Do you have burning or discomfort when urinating?		
13. Have you had autonomic dysreflexia?		
14. Have you ever been diagnosed with a heat-related (hyperthermia) or cold-related (hypothermia) illness?		
15. Do you have muscle spasticity?		
16. Do you have frequent seizures that cannot be controlled by medication?		
Explain "yes" answers here		
Please indicate if you have ever had any of the following.		
Trease mulcate if you have ever had any or the following.		
	Yes	No
Atlantoaxial instability	Yes	No
Atlantoaxial instability X-ray evaluation for atlantoaxial instability	Yes	No
Atlantoaxial instability X-ray evaluation for atlantoaxial instability Dislocated joints (more than one)	Yes	No
Atlantoaxial instability X-ray evaluation for atlantoaxial instability Dislocated joints (more than one) Easy bleeding	Yes	No
Atlantoaxial instability  X-ray evaluation for atlantoaxial instability  Dislocated joints (more than one)  Easy bleeding  Enlarged spleen	Yes	No
Atlantoaxial instability  X-ray evaluation for atlantoaxial instability  Dislocated joints (more than one)  Easy bleeding  Enlarged spleen  Hepatitis	Yes	No
Atlantoaxial instability  X-ray evaluation for atlantoaxial instability  Dislocated joints (more than one)  Easy bleeding  Enlarged spleen  Hepatitis  Osteopenia or osteoporosis	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	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	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	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	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	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	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	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	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	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	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	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 biffida Latex allergy	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 biffida Latex allergy	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 biffida Latex allergy	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 biffida Latex allergy	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 biffida Latex allergy	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 biffida Latex allergy	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 biffida Latex allergy	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 biffida Latex allergy	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	Yes Date	No

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

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

### PREPARTICIPATION PHYSICAL EVALUATION

### PHYSICAL EXAMINATION FORM

**PHYSICIAN REMINDERS** 

<ol> <li>Consider additional questions on more sensitive issues</li> <li>Do you feel stressed out or under a lot of pressure?</li> <li>Do you ever feel sad, hopeless, depressed, or anxious?</li> <li>Do you feel safe at your home or residence?</li> <li>Have you ever tried cigarettes, chewing tobacco, snuff, or dip?</li> <li>During the past 30 days, did you use chewing tobacco, snuff, or dip?</li> <li>Do you drink alcohol or use any other drugs?</li> </ol>				
<ul> <li>Have you ever taken anabolic steroids or used any other performance</li> <li>Have you ever taken any supplements to help you gain or lose weight</li> <li>Do you wear a seat belt, use a helmet, and use condoms?</li> </ul>	or improve your	performance?		
2. Consider reviewing questions on cardiovascular symptoms (questions 5	i–14).			
EXAMINATION Height Weight	□ Male	☐ Female		
BP / ( / ) Pulse	Vision		L 20/	Corrected □ Y □ N
MEDICAL	VIGIOII	NORMAL	2207	ABNORMAL FINDINGS
Appearance  • Marfan stigmata (kyphoscoliosis, high-arched palate, pectus excavatum, ara arm span > height, hyperlaxity, myopia, MVP, aortic insufficiency)  Eves/ears/nose/throat	achnodactyly,			
Pupils equal				
• Hearing			_	
Lymph nodes Heart*		<del> </del>		
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>			-	And the second s
Skin  HSV, lesions suggestive of MRSA, tinea corporis				
Neurologic				
MUSCULOSKELETAL				
Neck Back				
Shoulder/arm				
Elbow/forearm	I 1018 111 111 111 111 111 111 111 111 11			
Wrist/hand/fingers				
Hip/thigh				
Knee				
Leg/ankle		-		
Functional		<u> </u>	-	
Duck-walk, single leg hop				
*Consider ECG, echocardiogram, and referral to cardiology for abnormal cardiac history or exa *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 co				
☐ Cleared for all sports without restriction				
☐ Cleared for all sports without restriction with recommendations for further ex	valuation or treatm	ent for		
□ Not cleared				
☐ Pending further evaluation				
□ For any sports				
☐ For certain sports				
Reason				
Recommendations				
I have examined the above-named student and completed the preparticip participate in the sport(s) as outlined above. A copy of the physical exam i arise after the athlete has been cleared for participation, a physician may reto the athlete (and parents/guardians).	s on record in my	office and can be m	ade available to the	school at the request of the parents. If conditions
Name of physician, advanced practice nurse (APN), physician assistant (F	PA) (print/type)			Date
Address				
Signature of physician, APN, PA			*	

### ■ PREPARTICIPATION PHYSICAL EVALUATION

### **CLEARANCE FORM**

Name	Sex LI M LI F Age Date of birth
☐ Cleared for all sports without restriction	
$\hfill \Box$ Cleared for all sports without restriction with recommendations for further evaluations are formula of the commendation of the commend	aluation or treatment for
□ Not cleared	
□ Pending further evaluation	
☐ For any sports	
☐ For certain sports	
Reason	
Recommendations	
EMERGENCY INFORMATION	
Allergies	
Other information	
HCP OFFICE STAMP	SCHOOL PHYSICIAN:
	Reviewed on
	(Date)   Approved Not Approved
	Signature:
I have examined the above-named student and completed the pren	participation 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
	nts. If conditions arise after the athlete has been cleared for participation, ved and the potential consequences are completely explained to the athleto
(and parents/guardians).	rea and the potential consequences are completely explained to the autien
	) Date
	Phone
Signature of physician, APN, PA	
Completed Cardiac Assessment Professional Development Module	
Date Signature	

# Website Resources

- www.cardiachealth.org/sudden-death-in-Sudden Death in Athletes 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

www.aapnj.org

American Heart Association

Union Street, Suite 301 Robbinsville, NJ, 08697 (p) 609-208-0020

**New Jersey Department of Education** 

www.heart.org

www.state.nj.us/education/ Frenton, NJ 08625-0500

(p) 609-292-5935

PO Box 500

New Jersey Department of Health

renton, NJ 08625-0360 O. Box 360

www.state.nj.us/health (p) 609-292-7837

Lead Author: American Academy of Pediatrics, New Jersey Chapter

Written by: Initial draft by Sushma Raman Hebbar, MD & Stephen G. Rice, MD PhD 4dditional Reviewers: NJ Department of Education, American Heart Association/New Jersey Chapter, NJ Academy of Family Practice, Pediatric Cardiologists, NJ Department of Health and Senior Services, 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

### ATHLETES CARDIAC SUDDEN DEATH

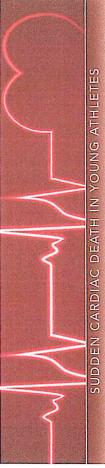
Sudden Cardiac Death The Basic Facts on in Young Athletes





Association American Heart

Learn and Live



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 death 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

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

attack)

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

also called HCM. HCM is a disease of the heart, muscle, which can cause serious heart rhythm 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) genetic disease runs in families and usually an athlete is hypertrophic cardiomyopathy with abnormal thickening of the heart develops gradually over many years.

(commonly called "coronary artery blood vessels are connected to disease," which may lead to a heart arteries. This means that these heart in an abnormal way. This differs from blockages that may the main blood vessel of the The second most likely cause is congenital occur when people get older abnormalities of the coronary (con-JEN-it-al) (i.e., present from birth)

# 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;
- 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:
Deter
Date: