

THE HEART PROGRAM



Protecting Young Athletes from Sudden Cardiac Death

By Anthony Rossi, MD

Every three days, sudden cardiac death (SCD) takes the life of a young U.S. athlete, such as a girl playing soccer, a boy at basketball practice or a high school football player. That is why an electrocardiogram (EKG or ECG) screening is so important. This simple heart test takes only a few minutes, and can mean the difference between life and death.

"The American Heart Association regards cardiovascular screening for athletes as an important public health issue. Ralph L. Sacco, MD, president of the American Heart Association, said in a recent announcement: "We strongly encourage student-athletes and other participants in organized competitive sports to be screened with a careful history, including family history, and thorough physical examination."

Getting an ECG screening is particularly important if your child has suffered any of these symptoms:

- Frequently feeling faint
- Feeling dizzy during or after exercise
- A racing heartbeat during or after exercise
- Chest pains of any kind

The risk of SCD increases if someone else in the family has had a heart attack or heart arrhythmia.

If the ECG screening detects a possible problem, a cardiologist may recommend other diagnostic tests to get a better understanding of the child's heart. SCD is often related to congenital heart conditions, such as abnormal chambers or valves, or to an abnormal thickening of the heart muscle, a coronary artery problem or an inflammation of the heart muscle caused by a viral infection.

For many years, cardiologists thought that SCD was a relatively rare occurrence among young people. But recent research indicates it is actually the leading cause of death among young athletes. Investigators from the University of Washington found that one in 43,770 National Collegiate Athletic Association (NCAA) athletes suffered a sudden cardiac death each year from 2004 to 2008. The study also found that black athletes had a higher rate of SCD than white athletes and the risk was higher in males than in females. The highest rates of SCD occurred in basketball, swimming, lacrosse, football and cross-country track.

If a young athlete does suffer a sudden heart attack, call 911 immediately and use an automatic external defibrillator (AED) to keep the child's heart beating until help arrives.

So, if your child is participating in school sports, make an appointment for an ECG screening or have one completed during your sports health screening at school. It might be the most important call you make or test you ever complete.

Anthony Rossi, MD, Medical Director, Miami Children's Hospital's Cardiac Critical Care Medicine.

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Miami Children's Hospital ECG SCREENING INITIATIVE

Objective:

To promote the well being of young student athletes Miami Children's Hospital is providing ECG screening free of charge to all students participating in athletics to make sports safer for our kids. The purpose of this screening is NOT to replace routine sports screening and clearance for these student athletes. Our goal is to identify those causes of sudden death in children that may not be picked up by a physical exam and history alone. We believe this is an extra layer of prevention that all kids deserve.

How to participate:

Call our Cardiology Department at 855-624-3547 to make your appointment at our Miami Children's Hospital Cardiology Department or for one of our conveniently located Outpatient Centers. You can also complete the ECG during your sports healthcare screening at school.

West Kendall Outpatient Center	13400 SW 120th Street	305-278-5927
Palmetto Bay Outpatient Center	17615 SW 97 Avenue (Franjo Rd.)	305-668-5507
Doral Outpatient Center-UCC	3601 NW 107th Avenue	786-624-5010
Miramar Outpatient Center- UCC	12246 Miramar Parkway	954-517-8915
Midtown Outpatient Center-UCC	3915 Biscayne Boulevard	305-571-8715
Palm Beach Gardens	11310 Legacy Avenue	561-624-9188

Parents or legal guardians must be present and sign an informed consent and intake form. The forms will be given to parents or legal guardians to be filled out at the time of the appointment. If participating in a Miami-Dade County Public School event, the forms must be signed and completed by parent or legal guardian prior to the athlete having the test.

Results:

ECG screening results will be read by a MCH Cardiologist and results will be mailed to the athlete's home address. Positive results will be followed up with a telephone call by the MCH Cardiology Department. If you have any questions please call our Cardiology Department at 855-624-3547.

Fee:

This is a **free community service**, no fee will be charged for participating in this screening program



**Miami Children's Hospital-Community EKG Initiative
Patient Information**

Place of Service: ___ MCH Main, ___ Palmetto Bay, ___ West Kendall,
___ Doral, ___ Midtown, ___ Miramar, ___ Nicklaus

Patient Name: _____	Sex: ___ Male ___ Female
Date of Birth: _____	Race: ___ Asian
Address: _____	___ African-American
City & State: _____	___ Caucasian
Zip Code: _____	___ Hispanic
Telephone: _____	___ Other: _____
Cell Phone: _____	
Primary Care Physician or Pediatrician: _____	

School: _____	Grade: _____
Sport: _____	
Height: _____	Weight: _____

Parent/Guardian Information

Mother: _____	Father: _____
DOB: _____	DOB: _____
Telephone: _____	Telephone: _____
Cell Phone: _____	Cell Phone: _____



Child's Name: _____ Date of Birth: _____

Past Medical History	Yes	No
1. Has your child ever fainted or passed out during or after exercise, emotion or startle?		
2. Has your child had extreme shortness of breath during exercise?		
3. Has your child had extreme fatigue associated with exercise (different from other children)?		
4. Has your child had discomfort, pain, or pressure in his/her chest during exercise?		
5. Has your doctor ever ordered a test for your child's heart?		
6. Has your child ever been diagnosed with an unexplained seizure disorder?		
7. Has your child ever been diagnosed with exercise-induced asthma not well controlled with medication?		

Family History	Yes	No
1. Are there any family members who had a sudden, unexpected, unexplained death before age 50? (including SIDS, car accident, drowning, others)		
2. Are there any family members who died suddenly of "heart problems" before age 50?		
3. Are there any family members who have had unexplained fainting or seizures?		
4. Are there any family members with certain conditions such as:		
Enlarged Heart: Hypertrophic Cardiomyopathy (HCM)		
Dilated Cardiomyopathy (DCM)		
Heart Rhythm problems: Long QT syndrome (LQTS)		
Short QT syndrome		
Brugada syndrome		
Catecholaminergic ventricular tachycardia		
Arrhythmogenic right ventricular dysplasia (ARVD)		
Marfan syndrome (aortic rupture)		
Heart attack, age 50 or younger		
Pacemaker or implanted defibrillator		
Deaf at birth (congenital deafness)		

Please explain more about any "yes" answers:

Parent Signature: _____ Date: _____

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ELECTROCARDIOGRAM SCREEN (ECG) CONSENT FORM AND RELEASE OF LIABILITY

An Electrocardiogram ("ECG"), sometimes referred to as an EKG is a test that checks for problems with the electrical activity of the heart. It translates the heart's electrical activity into line tracings on paper. An ECG screen can help identify young athletes who may be at risk for sudden cardiac death, a condition where death results from a sudden loss of heart function and therefore may help in diagnosing several different heart conditions that may contribute to sudden cardiac death.

By signing below, I am either electing or declining an ECG screen provided by Miami Children's Hospital (MCH) for my child. By choosing to receive an ECG screen, I acknowledge the limitations of an ECG screen and understand that sudden cardiac death may still occur, despite this screening. I also understand that there may be other conditions or abnormalities that are not shown by an ECG. I further acknowledge that students with an abnormal ECG screen may be required to perform additional testing (i.e., an echo or ultrasound) and /or a medical consultation before being allowed to participate in athletic activities or school sports. ECG screening results will be read by a MCH Cardiologist and results will be mailed to the patient's home address. Any positive results will be followed up within 24 hours by the MCH Cardiology Department with the parent. I also understand that the results are available at the Medical Records Department of MCH. **In order to ensure that my child's school representative (teacher, athletic director, or administrator) is aware of his or her eligibility to participate in school-sponsored athletics, I hereby authorize MCH to share the results of my child's ECG with the appropriate representative of my child's school.**

I understand that any follow-up care, treatment and/or procedures for my child as well as any cost of additional follow-up care, treatment and/or procedures are my responsibility and not the responsibility of MCH nor of the physicians evaluating my child's ECG.

By signing below, I hereby release and forever discharge, and waive, any and all claims against MCH, its employees, physicians, administrators, director's, consultants and contractors and any and all persons related to my child's election regarding and/or participation in the ECG screening, and authorize medical personnel to perform the ECG, review the ECG results, and interpret and use them for diagnostic purposes in accordance with the Health Insurance Portability and Accountability Act of 1996 and other state laws.

I certify that I have read and fully understand the above Consent and Release of Liability and that all of my questions have been answered to my satisfaction.

_____ I decline participation in the ECG screen on behalf or that of my minor child.	
_____	X
Parent/Guardian Name Printed	Signature
_____	_____
Date	Child's Name Printed

Please check and fill out only ONE of the boxes below:

_____ I do hereby consent to participation in the ECG screen on behalf or that of my minor child.						
_____	X	_____				
Parent/Guardian Name Printed	Parent/Guardian Signature					
_____	_____	_____				
Date	Child's Name/School Name (Printed)	Date of Birth				
Address						
City/Zip						
_____	_____	_____				
Home Phone	Business Phone	Cell Phone				
Circle sport(s) you plan to participate in.						
Baseball	Basketball	Bowling	X-Country	Football	Golf	Lacrosse
Soccer	Softball	Swimming & Diving	Tennis	Track & Field	Volleyball	Water Polo
Wrestling						