

# Keep Their Heart in the Game

## A Sudden Cardiac Arrest Information Sheet for Athletes and Parents/Guardians

### What is sudden cardiac arrest?

Sudden cardiac arrest (SCA) is when the heart stops beating, suddenly and unexpectedly. When this happens blood stops flowing to the brain and other vital organs. SCA is NOT a heart attack. A heart attack is caused by a blockage that stops the flow of blood to the heart. SCA is a malfunction in the heart's electrical system, causing the victim to collapse. The malfunction is caused by a congenital or genetic defect in the heart's structure.

### How common is sudden cardiac arrest in the United States?

As the leading cause of death in the U.S., there are more than 300,000 cardiac arrests outside hospitals each year, with nine out of 10 resulting in death. Thousands of sudden cardiac arrests occur among youth, as it is the #2 cause of death under 25 and the #1 killer of student athletes during exercise.

### Who is at risk for sudden cardiac arrest?

SCA is more likely to occur during exercise or physical activity, so student-athletes are at greater risk. While a heart condition may have no warning signs, studies show that many young people do have symptoms but neglect to tell an adult. This may be because they are embarrassed, they do not want to jeopardize their playing time, they mistakenly think they're out of shape and need to train harder, or they simply ignore the symptoms, assuming they will "just go away." Additionally, some health history factors increase the risk of SCA.

**FAINTING**  
is the  
**#1 SYMPTOM**  
OF A HEART CONDITION

### What should you do if your student-athlete is experiencing any of these symptoms?

We need to let student-athletes know that if they experience any SCA-related symptoms it is crucial to alert an adult and get follow-up care as soon as possible with a primary care physician. If the athlete has any of the SCA risk factors, these should also be discussed with a doctor to determine if further testing is needed. Wait for your doctor's feedback before returning to play, and alert your coach, trainer and school nurse about any diagnosed conditions.

### What is an AED?

An automated external defibrillator (AED) is the only way to save a sudden cardiac arrest victim. An AED is a portable, user-friendly device that automatically diagnoses potentially life-threatening heart rhythms and delivers an electric shock to restore normal rhythm. Anyone can operate an AED, regardless of training. Simple audio direction instructs the rescuer when to press a button to deliver the shock, while other AEDs provide an automatic shock if a fatal heart rhythm is detected. A rescuer cannot accidentally hurt a victim with an AED—quick action can only help. AEDs are designed to only shock victims whose hearts need to be restored to a healthy rhythm. Check with your school for locations of on-campus AEDs.



## The Cardiac Chain of Survival

On average it takes EMS teams up to 12 minutes to arrive to a cardiac emergency. Every minute delay in attending to a sudden cardiac arrest victim decreases the chance of survival by 10%. Everyone should be prepared to take action in the first minutes of collapse.

### Early Recognition of Sudden Cardiac Arrest



Collapsed and unresponsive.  
Gasping, gurgling, snorting, moaning or labored breathing noises.  
Seizure-like activity.

### Early Access to 9-1-1



Confirm unresponsiveness.  
Call 9-1-1 and follow emergency dispatcher's instructions.  
Call any on-site Emergency Responders.

### Early CPR



Begin cardiopulmonary resuscitation (CPR) immediately. Hands-only CPR involves fast and continual two-inch chest compressions—about 100 per minute.

### Early Defibrillation



Immediately retrieve and use an automated external defibrillator (AED) as soon as possible to restore the heart to its normal rhythm. Mobile AED units have step-by-step instructions for a bystander to use in an emergency situation.

### Early Advanced Care



Emergency Medical Services (EMS) Responders begin advanced life support including additional resuscitative measures and transfer to a hospital.

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## Recognize the Warning Signs & Risk Factors of Sudden Cardiac Arrest (SCA)

Tell Your Coach and Consult Your Doctor if These Conditions are Present in Your Student-Athlete

### Potential Indicators That SCA May Occur

- Fainting or seizure, especially during or right after exercise
- Fainting repeatedly or with excitement or startle
- Excessive shortness of breath during exercise
- Racing or fluttering heart palpitations or irregular heartbeat
- Repeated dizziness or lightheadedness
- Chest pain or discomfort with exercise
- Excessive, unexpected fatigue during or after exercise

### Factors That Increase the Risk of SCA

- Family history of known heart abnormalities or sudden death before age 50
- Specific family history of Long QT Syndrome, Brugada Syndrome, Hypertrophic Cardiomyopathy, or Arrhythmogenic Right Ventricular Dysplasia (ARVD)
- Family members with unexplained fainting, seizures, drowning or near drowning or car accidents
- Known structural heart abnormality, repaired or unrepaired
- Use of drugs, such as cocaine, inhalants, "recreational" drugs, excessive energy drinks or performance-enhancing supplements