

Keep Their Heart in the Game

Sudden Cardiac Arrest Information for Athletes & 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 each year, as it is the #1 killer of student athletes and the leading cause of death on school campuses.

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.

What should you do if your student-athlete is experiencing 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 physician, surgeon, nurse practitioner or physician assistant. 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.

FAINTING
is the
#1 SYMPTOM
OF A HEART CONDITION

Recognize the Signs & Risk Factors

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, diet pills or performance-enhancing supplements

Cardiac Chain of Survival

On average it takes EMS teams up to 12 minutes to arrive to a cardiac emergency. Every minute delayed 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.

Recognition of Sudden Cardiac Arrest



Victim is collapsed, unresponsive and not breathing, even if gasping, gurgling, exhibiting breathing noises or seizure-like activity.

Call 9-1-1



Follow emergency dispatcher's instructions. Call any on-site Emergency Responders.

Hands-Only CPR



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

Defibrillation



Immediately retrieve and use an automated external defibrillator to restore the heart to its normal rhythm. Follow step-by-step audio instructions from the AED.

Advanced Care



Designate a bystander to direct EMS to the victim for quick transfer to the hospital.

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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.

What are we doing to help protect student athletes?

The State of California passed the Eric Paredes Sudden Cardiac Arrest Prevention Act in 2016 to protect K-12 students participating in school-sponsored athletic activities. New policy adds sudden cardiac arrest (SCA) training to coach certification, and new protocol that empowers coaches to remove from play a student-athlete who exhibits fainting—the number one warning sign of a potential heart condition, and potentially for other conditions if they are believed to be cardiac related. A student-athlete who has been removed from play after displaying signs or symptoms associated with SCA may not return to play until he or she is evaluated and cleared by a licensed health care provider. Parents, guardians, caregivers and adults involved in athletic activities are urged to dialogue with student-athletes about potential warning signs and risk factors and be familiar with the cardiac chain of survival so they are prepared in the event of a cardiac emergency.

For more information about Sudden Cardiac Arrest visit

California Department
of Education
cde.ca.gov

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epsavealife.org

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