

Sudden Cardiac Arrest (SCA) Information

What is sudden cardiac arrest?

Sudden cardiac arrest (SCA) is when the heart stop beating, suddenly and unexpectedly. When this happens, blood stops flowing to the brain and other vital organs. SCA does not just happen to adults; it takes the lives of students, too. However, the causes of sudden cardiac arrest in students and adults can be different. A student's SCA will likely result from an inherited condition, while an adult's SCA may be caused by either inherited or lifestyle issues.

SCA is NOT a heart attack. A heart attack may cause SCA, but they are not the same. 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 heart to suddenly stop beating.

Causes: SCA is caused by several structural and electrical diseases in the heart. These conditions predispose an individual to have an abnormal rhythm that can be fatal if not treated within a few minutes. Most conditions responsible for SCA in children are inherited. Other possible causes of SCA are a sudden blunt non-penetrating blow to the chest and the use/abuse of recreational or performance-enhancing drugs and/or energy drinks.

How common is sudden cardiac arrest in the United States?

SCA is the #1 cause of death in this country. There are about 300,000 cardiac arrests outside of hospitals each year. About 2,000 patients under the age of 25 die of SCA each year. It is the #1 cause of death for student athletes.

Warning Signs of SCA

- Fainting or seizures during exercise
- Unexplained shortness of breath
- Dizziness
- Extreme fatigue
- Chest pains
- Racing heart
- SCA should be suspected in any athlete who has collapsed and is unresponsive.

Emergency Response to SCA

- Act immediately; time is most critical to increase survival rates
- Recognize SCA
- Call 911 immediately and activate EMS
- Administer CPR
- Use Automatic external Defibrillator (AED)

Warning signs of potential heart issues:

The following need to be further evaluated by your primary care provider:

- Family history of heart disease/cardiac arrest
- 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
- Exercise-induced chest pain
- Palpitations: awareness of the heart beating, especially if associated with other symptoms such as dizziness
- Extreme tiredness or shortness of breath associated with exercise
- History of high blood pressure

Risk of Inaction:

Ignoring such symptoms and continuing to play/practice could be catastrophic and can result in sudden cardiac death. Taking these warning symptoms seriously and seeking timely appropriate medical care can prevent serious and possibly fatal consequences. These symptoms can be unclear in athletes, since people often confuse these warning signs with physical exhaustion. SCA can be prevented if the underlying causes can be diagnosed and treated.



What are the risks of practicing or playing after experiencing these symptoms?

There are risks associated with continuing to practice or play after experiencing these symptoms. When the heart stops, so does the blood that flows to the brain and other vital organs. Death or permanent brain damage can occur in just a few minutes. Most people who experience SCA die from it.

Removal from play/return to play

Any student athlete who shows signs or symptoms of SCA before, during or after activity must be removed from play/practice. **Play includes all athletic activity.** Before returning to play, the athlete must be evaluated by a licensed physician, certified registered nurse practitioner or cardiologist (heart doctor). Clearance for the student-athlete to return to play must be provided in writing.

How can we minimize the risk of SCA and improve outcomes?

The risk of SCA in student athletes can be minimized by providing appropriate prevention, recognition, and treatment strategies. One important strategy is the requirement for a yearly pre-participation screening evaluation, often called sports physical, and performed by the athlete's medical provider.

1. It is very important that you **carefully and accurately complete the personal history and heart health questions about your family** section of the current "VHSL Athletic Participation/Parental Consent/Physical Examination Form" available at <https://www.vhsl.org/forms/>.
2. Since the majority of these conditions are inherited, **be aware of your family history**, especially if any close family member:
 - a. had sudden unexplained and unexpected death before the age of 50.
 - b. was diagnosed with any of the heart conditions listed above.
 - c. died suddenly /unexpectedly during physical activity, during a seizure, from Sudden Infant Death Syndrome (SIDS) or from drowning

Information used in the document was obtained from the American Heart Association (www.heart.org), Parent Heart Watch (www.parentheartwatch.org), and the Sudden Cardiac Arrest Foundation (www.sca-aware.org). Visit these sites for more information.



Parent/Student Athlete Acknowledgement

(Attach to VHSL Physical Form)

The Code of Virginia § 22.1-271.8 requires that in order to participate in any extracurricular physical activity, each student-athlete and the student-athlete's parent or guardian shall review, on an annual basis, information provided by the local school division on symptoms that may lead to sudden cardiac arrest. After reviewing the materials, each student-athlete and the student-athlete's parent or guardian shall sign a statement acknowledging receipt of such information, in a manner approved by the Board of Education.

The Code of Virginia § 22.1-271.8 requires that a student-athlete who is experiencing symptoms that may lead to sudden cardiac arrest be immediately removed from play. A student-athlete who is removed from play shall not return to play until he is evaluated by and receives written clearance to return to physical activity by an appropriate licensed health care provider as determined by the Board of Education. The licensed health care provider evaluating student-athletes may be a volunteer.

I have reviewed the ACPS Sudden Cardiac Arrest (SCA) Information Sheet.

Student-Athlete Name (PRINTED):

Student-Athlete Name (SIGNATURE):

Date:

Parent/Guardian Name (PRINTED):

Parent/Guardian Name (SIGNATURE):

Date: