

LYME-OLD LYME PUBLIC SCHOOLS

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 doesn't 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.

Sudden Cardiac Arrest Signs and Symptoms:

- Sudden collapse
- No pulse
- No breathing
- Loss of consciousness

SCA is the #1 cause of death for adults in this country. There are about 300,000 cardiac arrests outside hospitals each year. It is a leading cause of death for student athletes.

According to an April 2014 study by Toresdahl BG et al. (Heart Rhythm. 2014 Jul;11(7):1190-4. doi: 10.1016/j.hrthm.2014.04.017. Epub 2014 Apr 13.) the incidence was 0.63 per 100,000 in all students (6 in one million) , 1.14 per 100,000 student-athletes (10 in one million), 0.31 per student non-athletes (3 in one million), the relative risk of SCA in student athletes vs non-athletes was 0.65.

Although SCA happens unexpectedly, some people may have signs or symptoms, such as:

- fainting or seizures during exercise;
- unexplained shortness of breath;
- dizziness;
- extreme fatigue;
- chest pains;
- or racing heart.

These symptoms can be unclear in athletes, since people often confuse these warning signs with physical exhaustion. Sudden cardiac arrest is a medical emergency. If not treated immediately, it causes

sudden cardiac death. With fast, appropriate medical care, survival is possible. Administering cardiopulmonary resuscitation (CPR) — or even just compressions to the chest — can improve the chances of survival until emergency personnel arrive. Sudden cardiac arrest is a medical emergency. If not treated immediately, it causes sudden cardiac death. With fast, appropriate medical care, survival is possible. Administering cardiopulmonary resuscitation (CPR) — or even just compressions to the chest — can improve the chances of survival until emergency personnel arrive. (Drezner, J. A., Courson, R. W., Roberts, W. O., Mosesso, V. N., Link, M. S., & Maron, B. J. (2007). Inter Association Task Force Recommendations on Emergency Preparedness and Management of Sudden Cardiac Arrest in High School and College Athletic Programs: A Consensus Statement. *Prehospital Emergency Care*, 11(3), 253-271. doi:10.1080/10903120701204839)

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

Any student-athlete who shows signs or symptoms of SCA must be removed from athletic activity and referred to a licensed health care professional trained specifically in the treatment of cardiac care. The symptoms can happen before, during or after activity.

Injury Action Plan for Sudden Cardiac Arrest:

1. Recognize the signs and symptoms
2. Call 911 IMMEDIATELY
3. Start CPR
4. Use AED
 - a. Follow instructions on AED

Return to Play

Before returning to play, the athlete must be evaluated. Clearance to return to play must be in writing. The evaluation must be performed and written clearance be provided by a licensed medical provider.