Symptoms and Risk Factors for Sudden Cardiac Arrest

Educating youth about the symptoms and risk factors of sudden cardiac arrest is one way to help prevent it. In more than half of the cases of SCA in youth, death is the first sign of a problem. Young people are often unaware of the risk factors and don't tell adults if they experience the symptoms. They may be frightened, embarrassed, or simply unaware that what they are feeling indicates a potentially fatal condition.

Athletes don't want to jeopardize their playing time, so they may also avoid telling their parents or coaches in hopes that the symptoms will “just go away” on their own. Let student athletes know that if they experience any of the symptoms below, it is crucial to get follow-up care right away with a primary care physician.

The symptoms below indicate that SCA may be about to happen:

- Racing heart, palpitations
- Dizziness or light-headedness
- Fainting or seizure, especially during or right after exercise
- Fainting repeatedly or with excitement or startle
- Chest pain or discomfort with exercise
- Excessive, unexpected fatigue during or after exercise
- Excessive shortness of breath during exercise

The following factors increase 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 un-repaired
- Use of drugs such as cocaine, inhalants, or “recreational” drugs
Athlete Self-Check

Nobody Knows You Better than You!

Are you at risk for sudden cardiac arrest? Although rare in young people compared to adults, each death from SCA is unexpected and devastating for family and friends, the school, and the community. Recent studies have shown that SCA is the leading cause of death among high school and college athletes.

Sudden cardiac arrest is often the first symptom of a heart problem. But there are other signs and symptoms you should know about. If you check 'yes' on any of these questions, make sure you give this Athlete Self-Check to a parent or guardian, and visit your primary care physician for further evaluation and possible referral to a heart specialist.

Check one for each question:

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I sometimes feel unable to exercise.
I have had chest pain or chest tightness during or after exercise.
My heart has skipped beats, beats very fast, or fluttered unexpectedly.
I have had unexplained shortness of breath during or after exercise.
I have had unexplained fatigue or tiredness during or after exercise.
I have had unexplained seizures.
I have passed out or nearly fainted (especially during or after exercise).
I have a relative that died suddenly (unexplained drowning, car accident, sudden cardiac event).
I have a family member that has a genetic or inherited heart condition.

If you are experiencing these symptoms but feel embarrassed or worried that you won't be able to participate in your sport of choice, please remember:

- These symptoms are very serious. Several athletes in recent years that died of SCA had these symptoms. Friends and family members mentioned them later, not knowing they were symptoms of a life-threatening disease or condition.
- Athletes that speak up about their symptoms and get a full cardiac evaluation often go on to have the underlying problem resolved and participate in the sport of their choice.
Sudden Cardiac Arrest Facts

The Condition

- Almost 400,000 people in the U.S. suffer sudden cardiac arrest (SCA) each year, yet less than 10% survive.
- SCA occurs when the heart suddenly and unexpectedly stops beating.
- At any one time, an estimated 20% of the U.S. population congregates on school grounds, increasing the likelihood of school-based cardiac emergencies.
- In children and adolescents, the causes of SCA are varied and include heart conditions that result from abnormal heart structure or function, primarily electrical abnormalities, and outside factors such as a sudden blow to the chest or drug use.
- Every 3 days a young competitive athlete dies of SCA in the U.S.
- A victim of sudden cardiac arrest will often complain of feeling “faint” or dizzy, usually during or just after exercise. They will rapidly become unconscious and may gasp for breath for a short time.

The Treatments

- Victims of SCA can be brought back to life by providing chest compressions and early defibrillation with an automated external defibrillator (AED).
- Every second counts. When SCA occurs, chest compressions and the use of an AED need to start immediately.
- Survival rates decrease by 10% with each minute of delay.
- There is a 5- to 6-minute window before death or irreparable brain damage occurs.
- The AED can only help and will only deliver a shock if it is needed.
- The AED is very easy to use. Just turn it on and follow the voice prompts.
- Since anyone might witness a collapse, it is important for all staff members, parents, and athletes to have some general awareness of what sudden cardiac arrest looks like and what the action steps are to help:

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ANYONE CAN SAVE A LIFE