



## Matters of the Heart: What is Sudden Cardiac Arrest and How Do AEDs Save Lives?

### What is Sudden Cardiac Arrest (SCA)?

Sudden cardiac arrest (SCA) is the leading cause of death in young athletes. It occurs suddenly and without warning when the heart abruptly stops. Blood ceases to flow to the brain and other vital organs, causing immediate loss of consciousness or seizure-like activity.

If not treated within the first few minutes, SCA results in death.

Approximately one case of sudden cardiac death occurs every three days in organized youth sports, resulting in an estimated 3,000 to 7,000 deaths of school-aged children who have shown no prior signs of cardiac illness or symptoms.

Sudden cardiac arrest is **NOT** a heart attack. With a heart attack, the heart usually does not suddenly stop beating, although a heart attack can lead to SCA.

### Who is At Risk?

SCA is not a random event. Although it may occur in active children, it is frequently the outcome of an unknown, underlying heart condition. It can also occur as a result of other conditions such as heat stroke, asthma, drowning, electrocution, allergic reaction or medication.

A sudden blow to the chest between heartbeats can trigger SCA as well and is most common in sports like hockey, lacrosse and baseball. In these instances, chest protectors do **NOT** protect from SCA. Use of an Automated External Defibrillator (AED) to deliver an electric shock to restore the heart to its normal rhythm is the **ONLY** effective treatment.

### What Can You Do?

Early detection is crucial; however, unlike many heart problems that can easily be detected, the conditions that cause sudden cardiac arrest usually do not show up during a routine physical or an athletic screening – leaving most children undiagnosed until SCA occurs.

Although victims of SCA may never experience warning signs, there are symptoms to be aware of that may indicate a heart condition. If any symptoms exist, let your physician know immediately:

- Unexplained fainting or seizures at any time, during / immediately after physical activity or resulting from emotional excitement, distress or surprise
- Chest pain or discomfort / racing heartbeat
- Unusual shortness of breath
- Unusual fatigue / tiredness
- Dizziness / lightheadedness during or after physical activity

If your family has a history of heart problems or of unexpected sudden death during physical activity, you should ask your doctor to perform cardiac testing to detect any issues. A baseline test can help detect approximately 60% of the heart conditions that can lead to SCA.

If you're diagnosed with a heart condition, there are many precautionary steps that can be taken, including lifestyle modifications, medication or surgical treatments.

### Being Prepared When SCA Happens:

Time is the enemy – the combination of early recognition and access to advanced medical help and immediate use of CPR and an AED can more than double chances of survival.

With every minute that passes, chances of survival decrease by 7 to 10%. More than 70% of all sudden cardiac arrest victims are saved by AEDs.

Find out if your school is equipped with an AED that's publicly available on-site, as well as if certified staff, such as coaches and athletic trainers, are present. You, too, can save a life by learning CPR and AED use through a certifying association, such as the American Red Cross or the American Heart Association.

This information is not intended to be, and should not be used as a substitute for appropriate medical care.  
If you have any doubt about the injury, consult a physician or athletic trainer immediately.

For more information, visit the ATSNJ on the web at [www.atsnj.org](http://www.atsnj.org)