

Sudden Cardiac Arrest



Children's[™]
Healthcare of Atlanta



What is It and How Can it be Prevented in Our Kids?

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Sudden Cardiac Arrest (SCA) occurs when the heart suddenly and unexpectedly stops beating normally—usually a result of a heart electrical abnormality—stopping blood flow to the brain and other vital organs. SCA is different from a heart attack, which is caused by a blockage of blood flow to the heart through one of the coronary arteries. While SCA is very rare in children and adolescents, it does happen, and if not treated within minutes, can lead to death.

“The Georgia High School Association requires a pre-participation exam form to participate in high school sports, but how do we screen and protect the 8-year-old on the playground or the kid in club soccer? Because we want to protect all our kids, we must reframe the conversation to include everyone” - Dr. Campbell

The following questions and answers about SCA are important for families to know.

1. What leads to sudden cardiac arrest in kids and teens?

Typically, SCA in young people is due to underlying abnormalities of the heart, such as unrecognized congenital heart disease, heart rhythm abnormalities or heart muscle abnormalities such as hypertrophic cardiomyopathy, coronary artery abnormalities and long QT syndrome.

2. What are the warning signs of SCA?

The warning signs of possible heart risk in children include:

- Fainting, nearly fainting or seizure-like activity during or immediately after exercise
- High emotions or being startled
- Unusual chest, shoulder, back or jaw pain during exercise
- Excessive, unexpected, and unexplained fatigue or shortness of breath with exercise
- Unexplained heart murmur or high blood pressure
- Premature, unexplained death in a close relative younger than 50; or close relatives with conditions such as hypertrophic cardiomyopathy, dilated cardiomyopathy, long QT syndrome, Marfan syndrome or clinically important arrhythmias.

3. How can we prevent SCA?

There are two approaches to preventing SCA in children. **Primary prevention** involves identifying patients who are members of families who are at risk for SCA. All children should have a comprehensive family history, physical exam and pediatric cardiac risk assessment from their primary care, emergency department or sports medicine providers. Primary care physicians, school nurses, coaches, physical education teachers, parents and others who work with kids should be aware of early warning signs and symptoms of pediatric heart conditions

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and provide prompt referrals to a pediatric cardiac provider for further evaluation when warning signs are present.

Secondary prevention occurs by becoming trained to perform CPR and in how to use an AED to restart the heart in cases of SCA.

4. What is Project S.A.V.E.?

Project S.A.V.E.—which stands for **S**udden cardiac arrest, **A**wareness, **V**ision for prevention, **E**ducation—was launched by Children's Healthcare of Atlanta in 2004 with the mission of preventing sudden cardiac arrest in children, teens, and young adults in Georgia communities. When SCA occurs outside of a hospital, a person only has about a 10 percent chance of survival. However, if the cardiac arrest occurs in a Georgia school that has been prepared for such an event through Project S.A.V.E., the survival rate jumps to 80 percent. Since its inception, Project S.A.V.E. has saved more than 125 lives, and there are many more "downstream" saves that occur after people receive Project S.A.V.E. training. The program has brought AED and CPR training to every county in Georgia and has awarded more than 1,450 HeartSafe certificates to Georgia schools and one college campus.

5. How can I get Project S.A.V.E. into my child's school or athletic league?

Any community in Georgia can become a Project S.A.V.E. HeartSafe School or Community by requesting a consultation from our staff and completing a **checklist** demonstrating successful implementation of our program. We also provide resources for CPR and AED training and what to do in the event of life-threatening emergencies and non-life-threatening emergencies. Anyone who has questions about the program or the requirements to be a Project S.A.V.E. Heart-Safe School or Community can call 404-785-7201. For more information visit: <https://www.choa.org/medical-services/heart-center/project-save-program>.

Sudden Cardiac Arrest in the Young Webinar Recording

This activity has been approved for AMA PRA Category 1 Credits™.

If you missed the Sudden Cardiac Arrest (SCA) Webinar with Dr. Robert Campbell, you can view the recording by typing in this URL.

<https://attendee.gotowebinar.com/recording/8884387520029004547>