

Sudden Cardiac Arrest Symptoms and Warning Signs

What is Sudden Cardiac Arrest (SCA)?

SCA is a life-threatening emergency that occurs when the heart suddenly and unexpectedly stops beating. This causes blood and oxygen to stop flowing to the rest of the body. The individual will not have a pulse. It can happen without warning and can lead to death within minutes if the person does not receive immediate help. Only **1 in 10** survives SCA. If Cardiopulmonary Resuscitation (CPR) is given and an Automatic External Defibrillator (AED) is administered early, **5 in 10** could survive.



SCA is NOT a heart attack, which is caused by reduced or blocked blood flow to the heart. However, a heart attack can increase the risk for SCA.

Watch for Warning Signs

SCA usually happens without warning. SCA can happen in young people who don't know they have a heart problem, and it may be the first sign of a heart problem. When there are warning signs, the person may experience:



If any of these warning signs are present, it's important to talk with a health care provider. There are risks associated with continuing to practice or play after experiencing these symptoms. When the heart stops due to SCA, blood stops flowing to the brain and other body organs. Death or permanent brain damage can occur in minutes.

Electrocardiogram (EKG) Testing

EKG is a noninvasive, quick, and painless test that looks at the heart's electrical activity. Small electrodes attached to the skin of the arms, legs, and chest capture the heartbeat as it moves through the heart. An EKG can detect some heart problems that may lead to an increased risk of SCA. Routine EKG testing is not currently recommended by national medical organizations, such as the American Academy of Pediatrics and the American College of Cardiology, unless the pre-participation physical exam reveals an indication for this test. The student or parent may request, from the student's health care provider, an EKG be administered in addition to the student's pre-participation physical exam, at a cost to be incurred by the student or the student's parent.



While rare, SCA is the #1 medical cause of death in young athletes.

Limitations of EKG Testing

- An EKG may be expensive and cannot detect all conditions that predispose an individual to SCA.

- False positives (abnormalities identified during EKG testing that turn out to have no medical significance) may lead to unnecessary stress, additional testing, and unnecessary restriction from athletic participation.
- Accurate EKG interpretation requires adequate training.