



Sudden Cardiac Arrest (SCA) is the sudden onset of an abnormal and lethal heart rhythm, causing the heart to stop beating and the individual to collapse. 2,000 patients under age 25 die of SCA every year in the United States. **SCA is also the leading cause of sudden death in youth athletes during sports.**

Sudden Cardiac Arrest Causes

SCA in young athletes is usually caused by a structural or electrical disorder of the heart. Many of these conditions are inherited (genetic) and can develop as an adolescent or young adult. SCA is more likely during exercise or physical activity, placing student athletes with undiagnosed heart conditions at great risk. SCA also can occur from a direct blow to the chest by a firm projectile (baseball, softball, lacrosse ball) or by chest contact from another player.

While a heart condition may have no warning signs, some young athletes may have symptoms but neglect to tell an adult. If any of the following symptoms are present, a cardiac evaluation by a physician is recommended:

- **Passing out during exercise**
- **Chest pain with exercise**
- **Excessive shortness of breath with exercise**
- **Palpitations (heart racing for no reason)**
- **Unexplained seizures**
- **A family member with early onset heart disease or sudden death from a heart condition before the age of 40**

Preparing for Cardiac Emergencies

- ☐ Have an emergency action plan that includes a response plan for SCA events.
- ☐ All facilities where sports are played should have AEDs.
- ☐ Have someone on staff trained in CPR and AED use.
- ☐ Survival rates up to 75% when AED and CPR are used.



Cardiac 3-Minute Drill

1. RECOGNIZE

- Collapsed and unresponsive
- Abnormal breathing
- Seizure-like activity

2. CALL 911

- Call for help and request an AED

3. CPR

- Begin chest compressions
- Push hard and fast (100 per minute)

4. AED

- Use an AED as soon as possible

5. CONTINUE CARE

- Continue CPR and AED until EMS arrives



Screening Athletes

- Athletes should undergo cardiovascular screening before athletic participation.
- A minimum standard of cardiovascular screening should include a comprehensive medical history, family history, and physical exam.
- An electrocardiogram (ECG) can help identify underlying cardiac conditions that put athletes at greater risk.