



## Position Statement on Automated External Defibrillators and Emergency Response Planning for Sudden Cardiac Arrest

Parent Heart Watch supports the placement of AEDs in all schools, playing fields, and sports arenas where youth gather and/or participate in physical activity along with the development of Public Access Defibrillation Programs with Emergency Response Plans to Prevent Sudden Cardiac Death in Youth.

### **Sudden Cardiac Arrest (SCA)**

- SCA is the sudden onset of an abnormal and potentially lethal heart rhythm that causes the heart to beat ineffectively or not at all.
- SCA is the leading cause of death in the United States affecting over 350,000 individuals per year.
- SCA is also the leading cause of sudden death in exercising young athletes.
- SCA can be effectively treated through prompt recognition, early cardiopulmonary resuscitation (CPR), and early use of a defibrillator (AED).

### **Automated External Defibrillators (AEDs)**

- AEDs are portable devices that read and analyze the heart rhythm and provide an electric shock to restore the heart's normal rhythm.
- While training is helpful, AEDs come with simple instructions including voice and visual prompts and can be used by any lay responder whether trained or not.
- The placement of AEDs in schools increases survival from SCA to 64-74% when applied within 3 minutes or less.

### **Emergency Response Planning**

- A written and well-practiced emergency response plan is recommended for every youth-serving organization (school, athletic league/club, camp) to ensure an efficient and structured response to SCA.
- Successful programs require an organized and practiced response, including drills, an established communication method to activate the emergency medical services (EMS) system, and rescuers trained and equipped to provide CPR and defibrillation (AED).

### **Recognition of SCA**

- Prompt recognition of SCA is the first step to an efficient emergency response.
- Signs and symptoms of a SCA can include a sudden collapse or faint, absent pulse or respirations, or agonal breaths (gaspings for air) and/or seizure-like activity.

- Teachers, school nurses and other school staff, coaches, sports medicine professionals, and other anticipated first responders, must maintain a high index of suspicion for SCA in any collapsed and unresponsive student or athlete.
- SCA should be assumed in any collapsed AND unresponsive young person, especially with no head trauma.
- Brief seizure-like activity or involuntary arm and leg movements occur in over 50% of young athletes with SCA.
- A seizure should be considered a SCA until proven otherwise.

### Management of SCA

- If a young person collapses and is unresponsive, follow the four critical steps of the “Cardiac Chain of Survival” to increase chance of survival:
  - Early recognition of the emergency and activation of local EMS (call 9-1-1)
  - Early cardiopulmonary resuscitation (start chest compressions)
  - Early defibrillation (retrieve and use AED)
  - Early advanced life support and cardiovascular care (Hospital)
- All efforts should be made to minimize interruptions in chest compressions both before and after defibrillation.

### Placement of AEDs

- Effective placement of AEDs will allow the rescuer to retrieve the AED and deliver a shock to a victim within 3 minutes of collapse. For athletic events, have an AED on the sidelines!
- Location: Strategically installed in a publicly accessible area to be utilized by trained lay responders within the facility and the general public.
- Cabinet/Storage: Inside unlocked and alarmed cabinet that can be surface mount or recess mount.
- Height: Placed at an unobstructed height of 48 inches from the floor (it may be lower) to provide optimum accessibility in compliance with American Disabilities Act.
- Signage: Properly identified with a projecting (three-dimensional) AED sign which should be installed above cabinet clearly marking the location of the AED.
- Registration: Notify your EMS Medical Director’s Office that an AED is onsite (requirements may vary).
- Inspection: Conduct regular maintenance of AED battery and pads to ensure readiness when needed.

### Prevention of Sudden Cardiac Death (SCD)

- Schools and other youth-serving organizations/programs should develop a Public Access Defibrillation Program that includes education and training, maintenance of emergency equipment and supplies, appropriate training of personnel and staff, and the development of an emergency response plan.
- Youth should be taught effective bystander CPR in school health education programs.