

SCA Fact Sheet

Cardiopulmonary Resuscitation and Automated External Defibrillator (CPR/AED) Education

- ❖ Sudden cardiac arrest (SCA) occurs when the heart suddenly and unexpectedly stops beating. Without intervention, sudden cardiac death (SCD) will occur.
- ❖ Sudden cardiac arrest, the third leading cause of death in the United States (US), is responsible for over 395,000 out of hospital cardiac arrests (OHCA)/year, one every two minutes-12,000 in Pennsylvania every year, 33 each day, approximately 1500/year or 4 each day in Philadelphia.
- ❖ In adults, SCA is associated with primary electrical abnormalities, coronary artery disease, post heart attack, or in association with other cardiac conditions causing a weakened heart/cardiomyopathy.
- ❖ In children, SCA is associated with inherited electrical conditions (Long QT Syndrome, WPW, CPVT), weakened heart muscle (hypertrophic or dilated cardiomyopathy/often inherited), or coronary artery anomalies.
- ❖ Sudden cardiac death can be aborted by using cardiopulmonary resuscitation (CPR) and/or automated external defibrillators (AEDs).
- ❖ Successful outcomes depend on the quick and effective performance of CPR by lay rescuers or bystanders and the use of AEDs by the bystander or by EMS or healthcare providers.
- ❖ Bystander CPR rates are low in most communities averaging 15-40% prior to EMS arrival and current survival of out of hospital sudden cardiac arrest is only 10-12%.
- ❖ CPR, especially if performed immediately, can double or triple a person's chance of survival.
- ❖ In recent years, additional attention has been focused on AED placement and CPR/AED education in schools as a way to improve survival of children and adults in the schools.
- ❖ The presence of an AED in a school and the performance of CPR can increase survival up to 74- 88% (from 10%) in children and adults in the schools.
- ❖ With regard to training in CPR and AED use in schools, important areas include recognizing sudden cardiac arrest, calling for help (and calling 911), getting an AED, and effective CPR.
- ❖ A number of studies have shown that CPR and AED use can be taught to children and adolescents by school teachers as effectively as by health care professionals.
- ❖ The American Heart Association specifically recommends that AED training and skills practice should be included in school CPR training, as students with hands on training are more willing to perform CPR.
- ❖ By educating students, more lifesavers will be present in our communities to help save lives.
- ❖ Currently, 39 states in the US mandate CPR education in the high school.
- ❖ On June 12, ²⁰¹⁹ Pennsylvania became the 39th state to pass legislation (Act 7 of 2019) that includes CPR and AED education for high school students in their Health and PE classes.

