



Chris Shipler (left) with son Sean

The Grassroots Movement to Place AEDs in Schools

By Mary Newman

D is for Defibrillation

There is nothing more painful than losing a child. And when one dies unexpectedly from sudden cardiac arrest (SCA), the loss can be particularly severe. Kids aren't supposed to die this way, the family thinks, and could the death have been prevented if rapid defibrillation was available? Perhaps it is this deep anguish—and the need to draw some good out of it—that has motivated a growing number of parents to become champions for AEDs in schools.

Parents/Friends Who Care

Karen Acompora of Suffolk County, Long Island, was inspired to create the Louis J. Acompora Memorial Foundation, in memory of her son, Louis, who died suddenly on March 25, 2000 at the age of 14. Louis, a lacrosse goalie at Northport High School, had been struck in the chest during a game. Although he was wearing a chest plate and was in otherwise good health, he died instantly from commotio cordis leading to cardiac arrest. The Foundation, whose motto is "Taking our children out of harm's way," developed a comprehensive educational package that includes a book, video and Power

Point presentation on AEDs in the schools. It has been widely distributed free of charge to increase awareness among parents and coaches about commotio cordis and the need for improved screening of athletes along with access to defibrillation in schools and athletic fields. Thanks to Acompora's efforts, 20 AEDs have been installed in area schools and more than a thousand kits have been distributed nationwide. Louis's story touched the hearts of millions more when Karen appeared with Oprah Winfrey.

John and Rachel Moyer, from Shawnee on Delaware, Pennsylvania, lost their son, Gregory, a 15-year-old high school student, when he collapsed and died on December 2, 2000 during a basketball game. The couple established the Gregory W. Moyer Defibrillator Fund, which has raised more than \$100,000 to place AEDs in area schools. In addition, they worked tirelessly with state legislators to develop the first bill in the nation that provides state funding for AEDs in schools (General Assembly of Pennsylvania House Bill 996). The program, sponsored by Rep. Kelly Lewis, R-Monroe and signed into law by then Governor Tom

Ridge, provides \$2.4 million in funding. Eligible school districts can get two defibrillators free and can buy additional devices at a discounted rate.

For Linette Derminer, tragedy struck on June 7, 2000, when her son Kenneth, 17, died suddenly during football practice. She has since created the Ken Heart Foundation, dedicated to the prevention of sudden cardiac arrest and death in youth and athletes. The Foundation website, www.kenheart.org, features a hall of fame that honors young people who have lost their lives to sudden cardiac arrest and the few who have survived. Derminer also has been active in promoting legislation in Ohio that would provide funding for AEDs in schools. She also is developing a database of young victims of SCA.

In November 2000 the lives of Chris and Tammy Shipler changed forever. That's when their 14-year-old son, Sean, experienced sudden cardiac arrest while running on the track at Inglewood Junior High School in Sammamish, Washington. Bystanders provided CPR until paramedics arrived 10 minutes later and revived him with a defibrillator. Although Sean survived, he suffered neurological

impairment. Determined that this should not happen to other young people, Chris Shipler began a crusade to get AEDs into area junior and senior high schools. Shannon Bulger, a fellow student who was deeply touched by Sean's accident, and her father, Scott, joined in the effort. They were guided by Alidene Dougherty, a defibrillation advocate from the University of Washington.

At first the group met with resistance. "Schools really need to be educated on this issue," said Bulger. "It's so frustrating that all too often a child has to die before anything happens." To increase public awareness and raise funds for AEDs in the schools, Bulger arranged for the Seattle Mariners to sign autographs at one of their games in exchange for \$20 donations. He invited the families of five other young SCA victims in the area and several other school-site AED advocates from around the country, including the Acomporas, Moyers and Derminers, to participate in the fundraiser. He enlisted the help of the Issaquah and Redmond Rotary Clubs, which provided volunteers to collect donations from fans and whose 501(c3) status enabled contributions to be tax deductible. Thanks to donations and additional funds from the Rotary, more than \$50,000 was raised, making it possible for 19 schools to be equipped with defibrillators. Bulger created www.heart-safeschools.org to help spread the word.

Project ADAM, a Milwaukee, Wisconsin initiative was created in memory of Adam Lemel, a 17-year-old student at Whitefish Bay High School who collapsed on January 22, 1999 during a basketball game. Adam, an avid athlete who enjoyed many sports, had a rare form of cardiomyopathy that was previously undiagnosed. The day after Adam died, David Ellis, a close friend of Adam's, channeled his grief into action, beginning a crusade to get AEDs into all 12 schools in his high school conference. Meanwhile, Karen Bauer, Becky Hirsch-Wolkenheim, and Stuart Berger, MD, of the Children's Hospital of Wisconsin were planning an initiative to get AEDs into high schools across the state. They joined forces with David and created "Project ADAM" (Automated Defibrillators in Adam's Memory). In the first 20 months of operation, Project ADAM provided defibrillators and training in 40 Wisconsin high schools, using bake sales, tailgate parties and can collections to raise funds. To date, Project

Causes of Sudden Cardiac Arrest in Kids

Commotio cordis is arrhythmia or sudden death from low-impact, blunt trauma to the chest without apparent heart injury. Ventricular fibrillation is the most common associated arrhythmia. Commotio cordis occurs most commonly in baseball but has also been reported in hockey, lacrosse, softball and other sports. Researchers at the U.S. Commotio Cordis Registry studied 124 cases and found the average age of death was 14. Only 18 victims in the study (14 percent) survived, usually because of prompt CPR and early defibrillation.

Hypertrophic cardiomyopathy (HCM) is a congenital (born with) heart (cardio) muscle disease (myopathy). The muscular walls of the left ventricle become abnormally thickened (hypertrophy). As HCM progresses, it can alter the structure of the heart and impair its functioning, sometimes causing sudden cardiac arrest. About one in 500 people have HCM; many are unaware they have it.

Location For Resources for School-Site AED Programs
<http://www.early-defib.org>

Adam has distributed more than 150 program manuals. It works closely with Masonic Lodges, which partner with schools to provide matching funds.

The far-reaching effects of these grassroots efforts are making a tangible difference. After the sudden death of high school soccer player Louis Savino, 15, the Council Rock School District in Bucks County, Pennsylvania allocated \$42,000 to buy defibrillators for all its buildings. Prompted by the sudden death of a 16-year-old baseball player who was struck in the chest with a baseball, the Board of Education in Jackson County, West Virginia, initiated the Ripley Project, which was endorsed by the State Board of Education and funded by the West Virginia legislature. It enabled the county school system to be among the first in the U.S. with a comprehensive program.


The good news is that some young victims have become survivors. In October 2001 sixth-grader Daniel Golden, 11, collapsed at the bottom of a staircase at the

Monsignor McHugh School in Cresco, Pennsylvania. School nurse Theresa O'Malley and a crisis response team rushed to his side with the school's new AED. After several shocks, Daniel's heartbeat was restored; he was taken to a nearby hospital to recuperate. The AED had been donated to the school less than two weeks earlier.

In November 2001, another school-site save occurred—but this time it was an adult who was resuscitated. Terry Artman, 54, assistant cross-country coach at Glenbard High School in Glen Ellyn, Illinois, was at a pep rally honoring the team for winning the state championship when he suddenly slumped to the floor. School nurse Jean Karris and security guard Jim Kolzow, a retired paramedic, along with parent Barbara Mac Taggart, became the resuscitation team. "Terry was awake and alert before EMS arrived," said Harris. The school had implemented an AED program 18 months earlier, thanks to the proactive efforts of William Leensvaart, principal, and the district administration who wanted to prepare for the possibility of athletes who may suffer from hypertrophic cardiomyopathy.

Should AEDs Go To School?

Some experts caution that the incidence of sudden cardiac arrest in young people is rare and that putting AEDs in schools are not a high priority. Others argue that school populations include not only low-risk young students but also higher-risk middle-aged and elderly teachers, parents and visitors. Further, schools usually serve as community gathering sites and places of refuge during crises. What's more, by placing AEDs in schools and training (and retraining) students, in time, a whole generation of adults will be comfortable with the devices. They'll be grounded in a new response culture in which quick, effective "bystander" action is the norm, not the exception.

For parents who are grieving, the need for AEDs in schools is self-evident. "We don't know if having one (an AED) there that night would have saved Greg," said Rachel Moyer. "But we do know that we want to make sure that no other parent will have to wonder." 

Mary Newman is the Executive Director of the National Center for Early Defibrillation and is nationally recognized as an advocate, author and educator in public safety for more than 20 years. She created the "Chain of Survival" metaphor which is used worldwide to graphically show the importance of a quick and comprehensive response to victims of sudden cardiac arrest.