

PKSFD Acquires Lifesaving Device

By Chief Jason Baker
Pine Knoll Shores Fire & EMS Department

Lucas 2 Chest Compression System

Cardiac arrest! In emergency medicine, we refer to this as a “code”—a situation when emergency responders have been dispatched to a suspected cardiac arrest and find the patient unconscious. Responders check for breathing and pulse to confirm that they are dealing with a code.

A basic EMT will begin CPR, and the medic in charge will begin to get IV access, traditionally with a vein in the hand or arm, or may opt to gain vascular access by drilling into the bone (either the tibia in the leg or the humerus of the arm). A basic EMT will place the defibrillator pads on the chest for possible defibrillation while another EMT will get a bag valve mask onto the patient and begin giving ventilations in coordination with the ongoing chest compressions.

As seen with this quick description, there are many activities performed simultaneously at a code. While it can seem chaotic to an onlooker, everything is performed to a set protocol written by the medical director of the county.

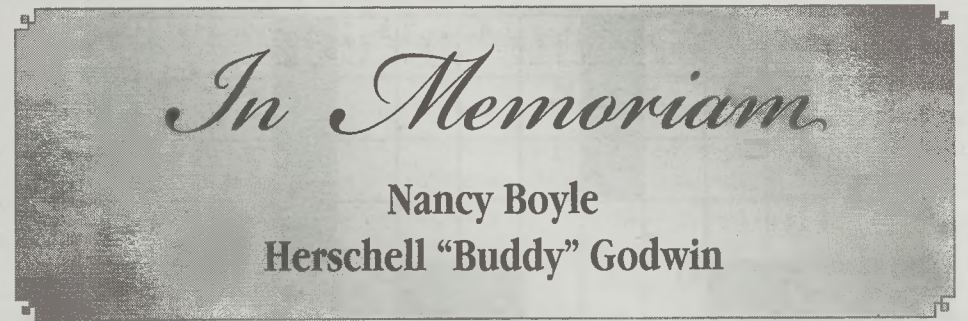
How quickly CPR is started after the victim initially “goes down” is a huge factor in a positive outcome and patient survival. One of the key components of CPR is the chest compressions. These compressions keep blood circulating in the vascular system in an effort to keep cells oxygenated.



The PKSFD Lucas 2 Chest Compression System, positioned on a CPR manikin exactly as it would be used on a person requiring cardiac pulmonary resuscitation.—Photo by Jason Baker

Compressions are initiated quickly when medical responders arrive on scene and confirm CPR is required. The importance of quality compressions, including rate and depth, cannot be overstated. An automated device designed to perform chest compressions can be used to take over this key function on the scene, freeing up personnel to perform other critical tasks throughout the event. Another huge benefit of such a device is that it can maintain quality compressions without tiring.

The Pine Knoll Shores Fire & EMS Department recently received a grant, and we used the money to purchase a Lucas 2 Chest Compression System. This automated chest compression device can be used during CPR to provide



consistent chest compressions while EMS personnel attend to the patient’s other critical needs. After a board is placed across the back of the victim, the Lucas 2 is strapped to his or her chest. Medical personnel set the machine, and it will perform chest compressions throughout the entire rescue.

There is one person on our EMS staff who is a subject matter expert on an automated chest compression device, and he has proved to be invaluable in our training. In addition, online training is available when we need it.

Pine Knoll Shores emergency medical personnel are excited to have this device—and as of this writing, it has already been used on one emergency call. While we hope that this device will never be needed, it is a real comfort to know that it is available and can be deployed quickly to help provide the best care for a victim in an emergency. With the summer season almost upon us, we are especially pleased to know that we have this equipment at our disposal in the event of a water rescue situation.

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