The Shock Heart ‘Round the World De-fib – And Live

Raymond O. West, M.D., M.P.H.

We’ve heard the grim data over and over. More than 400,000 deaths yearly in the USA, due to "heart attacks." Cholesterol, along with calcium stashes in the lining of the heart’s arteries. Blood currents are blocked, and wham a portion of heart muscle dies. And so does the patient, at least 50 percent of the time. How is it that death strikes so suddenly, so finally.

Think of it this way: Your heart never sleeps; misses a beat once in a while, but never quits for time out. Each new beat requires another surge of oxygen. Dare to deprive those spindly muscle fibers of their life-giving oxygen, and they will disapprove. Sometimes, it’s pain in the chest (angina). At other times the whole heart muscle mass gives up on the beat-by-beat rhythm and begins to quiver. Now the heart is a "bag of worms." Without warning, the heart has gone into "ventricular fibrillation" (V-Fib). Four minutes to live. Maybe five or six.

It’s time for some prompt Basic Life Support, instant cardio-pulmonary resuscitation (CPR). Fortunately, millions have been trained to “rescue” the patient with V-Fib, and mouth-to-mouth breathing, along with chest compressions, have ransomed many a victim from certain death. A good start, but something more is needed. Here’s the thing: nothing will save that quivering heart unless it can be shocked into regular rhythm again. Nothing.

Enter the AED (Automated External Defibrillator). Let’s suppose that you are in a big Boeing 747, high over the Pacific, next stop Tokyo. Without warning, a 55-year-old man slumps forward in his seat, then into the aisle. No response to touch and talk, no breath and no pulse. Immediately, a flight attendant – true to her training – begins mouth-to-mouth breathing; another does chest compressions as dramatic seconds fly by. A third sprints up with the AED, opens the cover, pulls off our victim’s tie and shirt and slaps on the pads. The system charges. Dramatic seconds! All attendants “clear” the patient and a shock slashes through the chest wall, striking the errant heart. High drama stills the cabin. Then, the cry rings out, "We have a pulse!" The heart has resumed its lubb-dubb with a clock-like rhythm, and our man will make it to Toky alive, with a beating heart. If that’s not a miracle, it will have to do for this flight.

Let’s get it straight now. All the skilled CPR will only end in death unless the heart can be stunned into rhythm. The AED can do that. But it must be done stat, before heart and brain death. Seconds count. That’s why AEDs are most everywhere, or soon will be – in the air, at the ball game, the doctor’s office, the movie theater – wherever people congregate.

Your HealthWise reporter is thinking of buying one for his wife.

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