A PUSH RIGHT

Two easy steps to restart a heart

Journal Staff
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Did you know that the survival rate from sudden cardiac arrest (SCA) is less than 1% worldwide and close to 5% in the U.S.? Did you know that effective bystander CPR provided immediately after sudden cardiac arrest can double or triple a victim’s chance of survival? Without CPR intervention, most people experiencing a cardiac arrest will die within 10 minutes.

Yet, despite the difference CPR can make, global bystander CPR rates vary between 5% and 80%. Most people don’t know how and haven’t been granted the chance to learn. That’s why Oct. 16 is set aside as the international Restart a Heart Day to recognize the vital importance of knowing the simple steps to save a life: Call 911 and push hard and fast on the center of the chest.

Restart a Heart Day had its beginnings in 2014 as an initiative to make CPR education mandatory in the U.K. secondary curriculum. During the next four years, the paramedic behind the project—Jason Carlyon—smashed a 100,000 milestone, charting a record 105,000 secondary school children in Yorkshire, U.K., trained in CPR by Yorkshire Ambulance Service (YAS) ambulance staff and volunteers. Carlyon is the YAS Clinical Development Manager and National Restart a Heart Project Manager for the Resuscitation Council (UK) that, in 2018, launched an international Restart a Heart Day resulting in an amazing 238,793 people trained on that one day.

This year marks the second annual worldwide edition to create the awareness that anyone can learn CPR and, according to the official Restart a Heart website, “facilitate BLS courses in schools and public locations.” The Resuscitation Council (UK) along with the British Heart Foundation, British Red Cross, St John Ambulance, and Yorkshire Ambulance Service are working together to generate interest and action, and planned events are coming in from all directions: Austria, Belgium, Denmark, Italy, Malta, Slovenia, Spain, the Netherlands, the U.K., and Australia.

Salt Lake City, Utah (USA), will join the ranks this year as possibly the first city and state in the U.S. to join the international effort. The International Academies of Emergency Dispatch® (IAED™), the American Heart Association (AHA)—Utah and Las Vegas, and University of Utah Health are co-sponsoring the inaugural Restart a Heart event to help place saving a life into the hands of as many people as possible, regardless of age.

In response to research supporting continuous resuscitation training for emergency dispatchers, RQI Partners LLC—a joint venture partnership between the American Heart Association and Laerdal Medical—along with Priority Dispatch Corp.™ (PDC™) and the affiliated nonprofit IAED recently announced their shared mission to help double out-of-hospital cardiac arrest survival by 2028.

The subsequent launch of the Resuscitation Quality Improvement Telecommunicator (RQI-T) initiative to ensure high-quality telephone CPR instructions are given to bystanders is key to achieving the goal. RQI-T provides simulation-based learning and education to PSAP telecommunicators in 45-minute sessions every 90 days. RQI Partners delivers the RQI-T program to PSAPs, while IAED’s research-based guidelines standardize telephone CPR instructions.

We look forward to making Restart a Heart Day an annual tradition in Utah and helping to not only broaden the scope here but also encourage similar events throughout the U.S.

Remember, working together can make a difference. Learn the steps to restart a heart today.
EMD Chris Watkins
Vancouver Island Dispatch Operations Centre
BC Ambulance Service, Canada

The infant’s body was limp, and he was not responding to his mother’s voice. She did not know the amount of time elapsed since her baby had stopped breathing and the call from a neighbor’s house to 911.

“I didn’t know the downtime,” said EMD Chris Watkins, Vancouver Island Dispatch Operations Centre, British Columbia Ambulance Service. “But that doesn’t really matter, except that it’s very rare to resuscitate an infant in cardiac arrest. We try all the same.”

It was late afternoon in November 2018 when Watkins answered the call from a mother who found her two-month-old infant unresponsive during a nap. Watkins launched the medical ProQA® Fast Track pathway to Pre-Arrival Instructions with the mother and the neighbor outside on the front porch. They had provided three cycles of two breaths to 15 chest compressions.

“The baby started to cry,” Watkins said. “That was so fantastic. It was exceptional.”

The British Columbia Ambulance Service personnel arriving on scene stabilized the infant prior to whisking mom and baby to the pediatric center in Victoria. While Watkins does not know the cause of the infant’s cardiac arrest or the outcome, he was cautiously optimistic considering the apparently successful resuscitation.

Watkins started in EMS 13 years ago as a paramedic and continues to crew ambulances while also, for the past six years, working full time in emergency dispatch. His first on-scene call as a paramedic was a patient who had gone into cardiac arrest after choking on a piece of food. He started CPR while a second paramedic used forceps to dislodge the obstruction. Subsequent shocks with an AED returned spontaneous circulation.

“This was so powerful,” he said. “We took someone who was clinically dead and brought her back to life. That was amazing for me.

EMD Dionne Van Wijk
Kamloops Dispatch Operations Centre
BC Ambulance Service, Canada

Brock’s Law. Those are the first words that came to EMD Dionne Van Wijk, Kamloops Dispatch Operations Centre, BC Ambulance Service, when she answered a call involving a boy who had collapsed during gym class.

Teachers placing the call from Southern Okanagan Secondary School, Oliver, British Columbia, in February 2019 said his nose was bleeding. He wasn’t awake. They indicated he was breathing, which alerted Van Wijk to the use of the ProQA® Breathing Verification Diagnostic Tool. The tool showed that he was not breathing effectively. She started CPR, giving Pre-Arrival Instructions to one teacher while instructing a second teacher to get the AED.

“Brock’s Law flashed through my mind,” Van Wijk said. “In that moment, I knew I had to make sure they got the AED and that they would use it correctly.”

Van Wijk read the scripted AED instructions and after two shocks, BC Ambulance Service paramedics were on scene. The call

46% of people who experience an out-of-hospital cardiac arrest receive the immediate help that they need before professional help arrives.
was disconnected. Van Wijk took a five-minute break for some fresh air and then it was back on the floor. That night, she received a call from a member of the BC Ambulance Service Critical Incident Stress (CIS) team. She told the person she was doing fine.

It wasn’t until the next day that Van Wijk learned the teen had survived. One week later, she saw his picture in the news. He was sitting up in his hospital bed, smiling. She was invited to an awards ceremony at the secondary school, expecting only to meet the two teachers receiving the BC Ambulance Service Vital Link Award. The boy was in recovery following heart surgery and unable to attend.

“I was happy to go,” she said. “Meeting the teachers was award enough for me.”

Even better, she said, was the teacher who thanked Van Wijk for “being there for us.” The teacher credited Van Wijk for a calming influence that allowed them to focus. The ceremony—which recognized everyone involved—was followed up with news interviews and her nomination for IAED™ Dispatcher of the Year 2019.

Brock’s Law is named in honor of Brock Ruether, an athletic 16-year-old in Alberta, Canada, who collapsed from sudden cardiac arrest during high school volleyball practice. An AED that could have saved his life was brought to his side and never used. The law in the Medical Priority Dispatch System™ states: “The presence of an AED does not ensure its use—the EMD does.” Brock’s mom, Kim, is dedicated to public education on SCA and AED access.

70% of out-of-hospital cardiac arrests happen in homes.

Paul and Diana Nickel
Olathe, Kansas (USA)

What would you do if given a second chance?

Paul and Diana Nickel didn’t spend a lot of time considering their options. They grabbed the chance and went full steam in a direction never anticipated before 7:24 p.m. on Thursday, Nov. 8, 2018.

The Nickels were holding down the fort at the home of their son Brian and daughter-in-law Melissa in Olathe, Kansas, while the younger couple were out celebrating their anniversary. Diana had sliced ice cream cake for grandchildren Kate and Molly, and Paul was getting the good night book off the shelves.

Paul’s plans were short-lived. He heard a thump. Diana had collapsed onto the floor. Her eyes were open but glazed. Paul started CPR—using a form learned 40 years earlier in a certification class—and called 911. EMD Ashley Yockey, Johnson County Emergency Management and Communications Center, Olathe, Kansas, went to the Medical Priority Dispatch System™ (MPDS®) Fast Track and for the next seven minutes counted out loud the compressions of hands-only CPR for Paul.

From Yockey’s assistance came the “miracles” the Nickels credit for saving Diana’s life, giving the couple a second chance and allowing them to celebrate their 45th anniversary, knowing that day in November could have ended up much differently. They are still here together.

Diana was clinically dead when another link in the chain of miracles occurred. Johnson County EMS Director Ryan Jacobsen, M.D., followed up on an alert from the beeper he generally turns off while at home. He lives close and took off immediately, finding the home in a blizzard due to an additional step taken by one of the grandchildren.

“I had asked her to unlock the door [per Yockey’s Pre-Arrival Instructions] and if she hadn’t opened it, he would have had eight houses to choose from on the cul-de-sac,” Paul said. “He took the one with the light coming through the door.”
In moments, EMS/fire and police responders were assembling in the living room.

Two firefighters led Paul into the next room, away from the scene. Diana’s prognosis was not good. She was placed on a gurney beneath a mechanical CPR machine that repeatedly compressed her heart. She was shocked seven times. Forty minutes passed when Dr. Jacobsen determined it was time for the “Hail Mary” (final attempt) of resuscitation—double sequential defibrillation. One AED was placed on her chest, another on her back.

Paul kissed his wife and said goodbye. Chances of survival were slim.

But 12 days later Diana walked out of cardiac rehab. She was still recovering from broken ribs and sternum but otherwise in solid condition. No neurological damage. She had a slight spell of amnesia from the contusion to her face from the fall.

So, what do you do when you beat a 1% chance of survival? “You don’t eat an ice cream cone and say, ‘that’s great’ and go on from there,” Paul said. “We had a story to tell and the objective to help others.”

The Nickels made it a priority to visit and sincerely thank Yockey, Dr. Jacobsen, and the entire response crew, and were surprised to discover that they were among few to ever express appreciation. They located a local pastor who had prayed for Diana that night and appeared in the one vision Diana recalls (aside from remembering the color of paint on the kitchen ceiling).

Devout Christians, they have accepted many invitations to talk at their local churches. Paul was CPR certified in July 2019. They push for AEDs in schools, churches, and public buildings. They applaud every link in the chain of survival. Diana was among five sudden cardiac arrest (SCA) survivors at an event sponsored by HEARTSafe, a program promoting survival from out-of-hospital SCA.

They will never know why Diana was given a second chance, any more than there is a definitive answer to why she experienced SCA. They simply rejoice in the miracle of life and their opportunity to give back.

“It’s been quite a journey,” Diana said. “Beautiful and, at the same time, humbling.”

90% of people who suffer out-of-hospital cardiac arrests die. CPR, especially if performed immediately, can double or triple a cardiac arrest victim’s chance of survival.

Hands-Only CPR has just two easy steps, performed in this order:

1. Call 911 if you see a teen or adult suddenly collapse

2. Push hard and fast in the center of the chest to the beat of a familiar song that has 100 to 120 beats per minute
The American Heart Association is pleased to announce University of Utah Health as the local Healthy for Good platform sponsor. Together, we’re working to enhance the health and wellbeing of every Utahn using evidence-based recommendations, simple-to-understand advice, tools and shareable information.

— Learn more at heart.org/healthforgood. —
ALL CITIZENS of the world can SAVE a life

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