

CASE STUDY

Underwater: No Pulse to Full Recovery

AutoPulse Helps South Lake Tahoe Fire Department Save Near-drowning Victim

As its name suggests, South Lake Tahoe, California, a community of 23,000, is located on the shores of Lake Tahoe. It is right next to the Nevada border and the town of Stateline, Nevada. Surrounded by the Sierra Mountains, Lake Tahoe is the largest alpine lake in North America. Its water is known for its clarity, which makes the lake's south shore region an attractive tourist destination during the summer months for all types of water sports—especially boating.

Just before noon on July 15, a boater placed a 911 call to the South Lake Tahoe Fire Department (SLTFD) to report a man struggling in the water about 20 feet from shore near the Tahoe Keys Channel boat docks. Witnesses reported that a bystander had tried to swim out to him, but the victim disappeared under the water. A couple of boaters spotted him and tried to lift him aboard their vessel. But, heavy with the weight of the water, he went down and didn't resurface. Moments later, when SLTFD Medic Mike Fuller and his partner arrived, the victim had sunk to the bottom beneath 10 feet of water.



SLTFD Medic Mike Fuller with the AutoPulse

Fuller dove in, grabbed the man by his belt and pulled him up to a boat, where, with the help of others, he was able to get him onto the deck. Upon surfacing, the primary assessment found the victim to be cyanotic. It didn't look good. Manual CPR was initiated. The patient remained unresponsive.

SLTFD Engine 3 arrived and the boat was moved over to the rocks, where the victim was placed on a monitor to check his rhythm. The patient was in VF (ventricular fibrillation), so he was shocked at 120 joules. He then went into asystole, so CPR was reactivated. A quick-thinking responder suggested applying the AutoPulse® Non-invasive Cardiac Support Pump, which had been purchased six months earlier.

After minutes of high-quality, automated CPR from the AutoPulse, the victim, who was in his thirties, had achieved ROSC (return of spontaneous circulation) and was transported by ambulance to the nearest hospital. He was eventually flown to Renown Medical Center in Reno, where he received treatment in the cardiac cath lab.

Because the AutoPulse uses a load-distributing band that squeezes the entire chest, patients receive consistent, high-quality compressions that drive good blood flow.



"This victim had been under water with no pulse and was not breathing. The AutoPulse allowed him to have a full recovery."

SLTFD EMS Training Coordinator Kim George



"With the AutoPulse's LifeBand®, we were able to administer compressions to the patient's whole upper torso, not just the sternum," said Fuller, commenting on the rescue. "The best type of compression you can deliver is with this piece of equipment." He added that this person is alive today because of the AutoPulse and the help of his medic partner, Jody Benavidez.

According to Kim George, the SLTFD EMS training coordinator, "The AutoPulse made the significant difference in this patient's recovery. This victim had been under water with no pulse and was not breathing. The AutoPulse allowed him to have a full recovery. It administered consistent chest compressions while our medics performed their other ALS (Advanced Life Support) procedures. The pressure of the LifeBand also helped remove water from his lungs and got him oxygenated."

"Our goal is to provide the best quality of care," said George. "The AutoPulse is a great partner for us because of the high quality of the chest compressions."

The AutoPulse also gives us an extra set of hands. We're very happy with the results and the opportunity to have the AutoPulse on each call."

"Earlier in my career, I shied away from another chest compression device, but after seeing the AutoPulse in action, I changed my mind," said EMS Captain Marty Creel. "Once you have the training, it's easy to use and provides more efficient CPR than a human can. We don't have to break to switch providers for CPR, and it frees us to perform other lifesaving actions."



Easy to use, studies show that trained staff can deploy the AutoPulse in less than 30 seconds.

For more information on the ZOLL AutoPulse, please call 800-804-4356 or go to www.zoll.com/autopulse.

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