

## Miracle in Menemsha

*When a Chilmark carpenter suffered a massive heart attack, quick action by Islanders lead to an implausibly happy ending.*

By **Barry Stringfellow** - July 9, 2014



*Chris MacLeod, looking no worse for the wear, with wife Hope and children Finnegan and Linden, at the Chilmark town barn on Monday. — Photo by Michael Cummo*

Chris MacLeod, 47, was working by himself at the Chilmark North Road fire station on the morning of June 18. Around 10:30 am, as one of the warmest days of the year began to heat up, he began to feel ill.

“I was on a ladder, replacing some trim boards, and I started to feel sick, and my arm started tingling,” Mr. MacLeod recalled in a conversation with *The Times*. “Rodney [Chilmark town custodian Rodney Bunker] was there and I told him I needed to sit down and he looked at me and said we had to go.”

Rodney Bunker knew the closest EMT was at the Chilmark ambulance barn, a short drive away. He didn’t know, however, that on-duty EMT Kristina West was on the second solo shift of her young career, and that she’d never treated a patient in full cardiac arrest before.

“At first I thought they were firemen because they come and go at the station,” Ms. West recalled. “Then I saw Chris and we sat him in a chair right away. It wasn’t long, less than a minute until he coded,” she said.

“Coded” is medical-speak for cardiac arrest — the heart stops pumping and the lungs stop breathing — essentially, the person has died.

Mr. MacLeod coded many times over the next two hours. He coded in the Menemsha ambulance barn, he coded in the ambulance on the way to the hospital, he coded in the helicopter to Boston, he coded twice in the elevator at Beth Israel Hospital, and several more times on the operating table.

After calling for backup, Ms. West began CPR. One hundred chest pumps per minute on a man of Mr. MacLeod’s brawn is a physically demanding task. But Ms. West knew she could hold out until paramedic Matt Montanile and EMT Haley Krauss arrived from West Tisbury. She did not know, however, that they had just been in a serious accident.

“I was driving the brand-new response vehicle on North road, and we were about two miles from the barn when a car pulled out in front of me from a little side street,” Mr. Montanile said. “I barely missed the car, but

we went off the road and hit some trees head on and totaled the vehicle. I hopped out and radioed to dispatch to get other paramedics to respond.”

Tisbury paramedics Kyle Gatchell and Tracey Jones, and Tri-town paramedic Ben Retmier, all off-duty at the time, responded to Mr. Montanile’s call for backup. But back at the Chilmark fire barn, more precious seconds were ticking away.

According to the American Red Cross, irreversible brain damage can begin approximately three minutes into cardiac arrest, and the first 15 minutes are the most critical in determining the outcome of a heart attack victim. Mr. MacLeod spent the first of those 15 minutes on a cement floor, in a remote location, on an Island, with a newbie EMT straining to pump his chest. His long odds of a full recovery were dimming rapidly.

### **Help from all corners**

The delay in paramedic support could have been catastrophic. But once the word was out, Islanders stepped in. Chilmark executive secretary Tim Carroll, a special police officer and retired EMT, heard the Priority 1 call on the radio in his office at town hall, which sits next to the ambulance barn. Chilmark board of health inspector Marina Lent also works at town hall. “I’m a former paramedic, so when I heard there was an emergency in the barn, I ran,” Ms. Lent said. “When I got there, Chris was on his back and Tim [Carroll] was helping Kristina. She was doing an amazing job, especially considering how new she is to the job.”

Ms. Lent began to take turns in the chest compression rotation. “Big guys like Chris, you have to compress extremely hard and fast,” she said. “You have to rotate people out every two minutes because you get weaker, but because you’re so full of adrenaline, you don’t realize it.”

Ms. Lent was not optimistic about the outcome. “I was amazed to hear Chris was flown off-Island,” she said. “I honestly didn’t think he would last that long.”

Bret Stearns, natural resources director for the Wampanoag Tribe of Gay Head and tribal ranger Curtis Chandler arrived 10 minutes after the Priority 1 call went out, by Mr. Stearns’s estimation. In addition to joining the chest compression rotation, which now included Tri-town EMT Alan Ganapol, Mr. Stearns and Mr. Chandler deployed the Lucas machine, a chest compression device that the Wampanoag tribe acquired and donated to Tri-town ambulance last October. “The LUCAS (Lund University Cardiac Assist System) machine gives more effective compression for a longer period of time,” Mr. Stearns said. “Chris was the perfect candidate for it.”

By the time the paramedics arrived and the ambulance was ready to go, there were seven Islanders in the chest compression rotation, working to keep Chris MacLeod alive.

### **Down-Island dash**

On a normal day, North Road is the preferred route from Chilmark to the hospital because it’s a straighter road which makes the ride steadier for the paramedics working in back, and there’s usually less traffic. But because of the earlier accident involving the fast response team, Ms. West had to take South Road, which in the best of conditions is a motoring challenge. And Ms. West had not driven the ambulance in a critical emergency before. “Thankfully, it was mid-June and not August, so traffic wasn’t too bad, and it was mostly locals on the roads,” she said. “They know where it’s safe to pull over and they get out of the way pretty quickly.”

### **Next of kin**

While Mr. MacLeod was fighting for his life, his wife, Hope MacLeod, the intensive needs coordinator for Island schools, was at work in Edgartown, unaware of her husband's plight. "I was in a meeting and I shut off my phone," she said. "When I turned it back on there were all these messages, people madly trying to find me. They needed to know what medications Chris is on. They didn't say what had happened, but they said he was on his way to the emergency room. I raced to the hospital, and I beat the ambulance there. [Chilmark police chief] Brian Cioffi came screaming up in his car. I could hear more sirens coming in the distance. Brian implied Chris might not make it, and I just collapsed on him."

After some quick work by the Martha's Vineyard Hospital emergency room staff, Mr. MacLeod was put on a Medflight helicopter to Beth Israel Deaconess Medical Center in Boston. "They hardly ever let a spouse go on flight. For some reason the pilot said 'yes,'" she said.

### **Situation grave**

The cardiac response team at Beth Israel was assembled before the helicopter landed. The test results faxed by Martha's Vineyard Hospital underscored the urgency of the situation.

"His condition was grave," Dr. Amjad AlMahameed, a Beth Israel cardiologist said in a phone interview with The Times. "We had to shock him twice in the elevator on the way to surgery. Within the first four minutes of surgery we had to shock him twice as well."

Mr. MacLeod's surgery took only 17.9 minutes, according to Dr. AlMahameed's records. "His heart was starving for blood," he said. "It was operating at 50 percent efficiency. We found a 90 percent blockage in one artery and another 70 percent blockage downstream. Once we removed the blockages, his blood pressure improved immediately. We knew we could fix his heart," Dr. AlMahameed said. "But with him getting CPR for so long, there were still a lot of unknowns."

Dr. Donald E. Cutlip, another cardiologist, concurred, "We're always optimistic we can fix the heart when someone has CPR right away," he said in a phone interview with The Times. "In these situations, cardiac recovery is 95 percent. Neurologic recovery is another story. Given what Chris went through, the odds of cognitive impairment were extremely high."

### **Wondrous moment**

To minimize potential brain damage, Mr. MacLeod was put in a medically induced coma, and into medically induced hypothermia.

Over the next 48 hours, Mr. MacLeod's loved ones faced the cruel purgatory of praying for him to live, knowing that he might never recognize them, or live without the help of a machine, again. "It seemed like he was recognizing us at times, but it was hard to tell," Ms. MacLeod said. "I think he knew it was us. His heart rate would go up."

As Mr. MacLeod was brought out of his coma, the neurological team came to assess the severity of his brain damage. "He responded to all their tests, wiggling his fingers, shaking head 'yes,' pressing his foot like he was hitting the gas," Ms. MacLeod said in a quavering voice. "That was a huge moment."

By Saturday morning, the respirator tube was removed and Mr. MacLeod was breathing on his own. A week from the day his addled heart stopped eight times, Mr. MacLeod was home "on butterfly light duty," being showered with homemade gifts from his seven-year-old son, Finnegan, and his five-year-old daughter, Linden, who were thrilled that their father could read to them again.

"The last thing I remember is walking into the barn," Mr. MacLeod said. "My memory of the the hospital is

pretty foggy, and my chest is a little sore, but it's pretty wondrous that I'm walking around with all my functions."

### **Providence and planning**

"In Chris's case, a full recovery is quite miraculous," Dr. Cutlip said. "Years ago, only a few percent of bystanders knew CPR. As more people learn it, these miracles will happen more often."

"He was in the right place, surrounded by people who knew exactly what to do, and they did it properly," Dr. AlMahameed said. "The outcome of a heart attack is determined in the first 15 minutes. The first responders and the staff at Martha's Vineyard hospital deserve the credit for protecting his brain."

Providence played a role in keeping Mr. MacLeod alive, and also in saving first responders from serious injury.

"If Matt and Hailey had been in one of the old first response vehicles, their outcome would have been very different," Ms. West said.

Mr. Montanile agreed. "I believe that 100 percent. No doubt in my mind."

To a number, every first responder interviewed for this article cited Rodney Bunker as the key player in Mr. MacLeod's survival. "If it wasn't for Rodney telling him to get in the truck, Chris wouldn't be here," Mr. Carroll said. "Rodney is the hero of this story."

Mr. Bunker could not be reached for comment.

Ms. West praised Aquinnah police sergeant Paul Manning for his help at the barn, and for driving his cruiser ahead of the ambulance which made for a fast trip to the hospital.

"Sergeant Manning was a huge help. He has an exceptionally calm nature which is wonderful to be around in a crisis," she said. "He cleared the road so we wouldn't have to slow down. That made a huge difference, because if you break even a little hard or swerve to avoid something, the paramedics or the patient can really get hurt."

Ms. MacLeod marveled at how quickly her husband was treated. "It was 10:50 when Chris went down at the barn. He got to the hospital at 11:40, got to Boston at 12:35, and around 1:30 the doctors told me everything was done," she said. "I'm just so grateful to everyone. It's just incredible how so many people could pull together so quickly to save his life."

Ms. Lent had another take on the save. "Ultimately, the credit goes to Chris and his extreme stubbornness," she said. "He just refused to go down."

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