

## The Beat Podcast Season 2, Episode 3: Transcript

## The life-saving power of an AED

## The Beat: Season 2, Episode 3

[00:00:03] **Mitchell Myers** And it's scary and kind of freaky to think about it, but at one point you're in the thirdish, fourth cycle, Philip came to, and it was like life had entered his body, and he let a roar and his eyes opened. I jumped, like I remember it scared the heck out of me. And at that point I was just like, "OK. Leave the AED on. Give me a second, I'm checking for a pulse."

[00:00:27] **Caroline Lavallée** I'm Caroline Lavallée, and you're listening to <u>The Beat</u>, a podcast by Heart & Stroke, with support from our generous donors. Thanks for listening. Now let's get into the episode.

An estimated 35,000 people experience cardiac arrests outside of hospital each year in Canada. That's one every 15 minutes. Unfortunately, most don't receive the life-saving help they need. When someone collapses, it can be scary and confusing. It may even cause you to panic. But at this crucial time, you can save a life. Because if you perform CPR and use an AED, you can double their chance of survival.

There's a good chance a hockey game is being played in Canada right now, maybe even one in your community. So you probably know someone like Philip Sullivan. He owns a jewelry store in Summerside, Prince Edward Island, and played in a local recreational hockey league. His team hit the ice one night a week and in the occasional weekend tournament. And it was at a tournament in March of 2022 when Philip took a shift on the ice that changed his life.

[00:01:59] **Philip Sullivan** This was the second game of the day. We were partway through the game. I was on the ice, and when I get off, I was breathing hard. I'm 50 years old, and I don't exercise a whole lot. So I didn't really think anything of that hard or heavy breathing. I got a tap on the back from a teammate of mine saying, "Good shift, Phil," [00:02:24]and down I went.

[00:02:26] **Caroline Lavallée** Mitchell Myers, the goaltender on Philip's team, was a bit confused when he heard players calling him to the bench.

[00:02:33] **Mitchell Myers** Back to that moment, I recall my teammates yelling at me, and I initially thought they were calling me to the bench for an extra skater. But what I really remember is one close friend of mine yelling my name, and it was the tone of voice that he yelled my name. It kind of was, "Oh, dear, I think, you know, I really do think there's something wrong". And then, of course, they were waving and pointing to Philip, who had actually collapsed on my brother-in-law.

[00:03:00] **Caroline Lavallée** Mitchell was a former advanced care paramedic. He quickly skated to the bench where his training kicked in.

[00:03:08] **Mitchell Myers** And when I got to the bench, I noticed my brother-in-law holding Philip, and I could tell by the color in Philip's face and the lack of emotion that, you know, he was either unresponsive or unfortunately deceased. I climbed right into the bench, and I remember one of my first commands to the group was, you know, "Folks, if you don't know CPR, first aid, we need you to get out of the bench, and we create some space here."

[00:03:33] **Caroline Lavallée** The game stopped. Mitchell and another teammate who was an experienced first responder, began to assess Philip's condition.



[00:03:45] **Mitchell Myers** We both instantly started stimulating him, and then doing a pulse check, kind of simultaneously. And I remember her saying to me, I don't feel a pulse. I instantly agreed with her, and said, "You're right." I was feeling for a carotid pulse at the time. With very minimal hesitation, I confirmed. And then my first order to the group was to call 911, get an AED

[00:04:10] **Caroline Lavallée** Dr. Steven Brooks is a physician and researcher who studies cardiac arrest.

[00:04:16] **Dr. Steven Brooks** If somebody collapses suddenly, it's important that bystanders assess that person quickly to understand what's happening. First thing to do is check to see if someone is responsive. What does that mean? That means checking to see if that person responds to voice or touch or a loud noise. And if they're not responding at all like they normally would, the next thing to do is to check for breathing. If there's no breathing at all or if the breathing is abnormal, and what I mean by abnormal is a gasping or intermittent type of breathing called agonal breathing, it's important to consider that person is having cardiac arrest. Cardiac arrest is when the heart stops beating unexpectedly. And when that happens, within seconds, somebody becomes unconscious, unresponsive, and collapses to the ground. And without immediate intervention, within seconds to minutes, the risk of death is very high.

[00:05:17] **Caroline Lavallée** In a cardiac arrest, blood isn't pumping around the body. As Philip lay unresponsive, no oxygen was getting to his brain or other vital organs. Mitchell was taking the lead, but everyone around Philip at that moment had a role to play. His survival depended on it.

[00:05:40] **Mitchell Myers** We immediately worked as a team to begin CPR and resuscitation efforts while the AED was coming to us. So I was at Philip's head looking over him kind of from an upside down perspective. I tried to open his airway as best I could. We immediately started chest compressions again within minutes of identifying that he was unresponsive without a pulse, and did our best to do those compressions with the space and the equipment we had.

[00:06:10] **Caroline Lavallée** Philip was fortunate to have teammates that were experienced first responders, but Dr. Brooks stressed that anyone can do CPR in a cardiac arrest emergency.

[00:06:22] **Dr. Steven Brooks** CPR is something that involves rhythmic chest compressions, putting the hands, two hands, one on top of the other in the centre of the chest and pushing hard and fast. CPR is something that can be done by anyone. Ideally, people have learned how to do CPR before, either by watching educational videos or, in the best case scenario, going to a CPR course or first aid course.

But not having training shouldn't stop someone from attempting CPR. You can't make the situation any worse by doing inadequate or incorrect CPR when somebody is unconscious and not breathing normally. The worst case scenario for that person is that nothing is done. So it's important to try your best, try chest compressions, and know that you cannot hurt that person by doing your best at chest compressions in that situation.

[00:07:23] **Caroline Lavallée** It's also good to know that when you call 911 in an emergency, the dispatcher will be able to coach you on how to do CPR, even if you've never done it before. Performing CPR is essential when helping someone in cardiac arrest, but an AED can increase their chances of survival even more.

[00:07:47] **Dr. Steven Brooks** AEDs are automated external defibrillators. Defibrillators are devices that can provide an electrical shock to the chest of someone in cardiac arrest to momentarily stop the heart and restart it in a normal rhythm. In many cases of cardiac arrest, the problem is that the electrical



impulse in the heart has become chaotic and disorganized in something called ventricular fibrillation or ventricular tachycardia. In these cases of cardiac arrest, a defibrillator provides an electrical shock to stop the chaotic electrical impulses that are occurring so that the heart can restart with its own internal pacemaker in irregular rhythm, and start the heart pumping again. AEDs are devices that are designed for anyone to use. They're not designed for medically trained individuals necessarily. They're designed for laypeople to use, for people who don't use them very often or have never used them before.

[00:08:52] **Caroline Lavallée** If you've been to a rink or other public place, you might have seen an AED on the wall and not even realized what it was.

[00:09:01] **Dr. Steven Brooks** The most common places where AEDs can be found are in schools, transportation hubs, public buildings, and in some businesses, such as gyms or community centres or other retail outlets. It's important for you to be aware of AEDs in your daily environment. So take some time to look for them in your workplace, in places that you frequent in your own community, so that if the need arises for an AED you've already thought about where your closest AEDs are to places that you frequent.

[00:09:39] **Caroline Lavallée** Fortunately, the hockey rink in Summerside had an AED. Philip's hockey gear was cut away so the AED pads could be placed on his chest.

[00:09:50] **Mitchell Myers** And what feels like eternity is only a few seconds as the AED is going through its motions and telling you... all the things an AED does, to someone who is unfamiliar with the use of an AED. And then finally, we get the motion to stop CPR. Do not touch the patient. I remember kind of taking a breath. I was very, very involved, very physically involved with the resuscitation. A lot of stress on my body. I heard shock advised. And I remember telling myself, "This is good, this is good. I know this is good."

So I did the, "I'm clear. You clear? All clear." Nobody's touching the patient. You know, took a good 360 perspective and pressed the shock button and shocked Philip. But at this time, you know, through the active resuscitation efforts, there was probably eight to 10 of us that were fully involved, at least listening and waiting for a command or waiting to provide some sort of insight or just being available in case they were needed. It was just a very rhythmic, coordinated team effort.

[00:10:52] **Caroline Lavallée** After the AED shock, Mitchell made sure that they continued doing chest compressions on Philip. Dr. Brooks says it's important to keep doing CPR.

[00:11:03] **Dr. Steven Brooks** If the heart is restarted again, people may begin breathing normally again and may show some signs of consciousness, including making some noises with their voice, making some movements that may appear purposeful. The important thing is if you're not sure whether the person's hearts has started again, it's important to continue following the instructions from the AED.

Providing chest compressions in someone whose heart has restarted again is not harmful, but withholding chest compressions in someone who is still in cardiac arrest can be very harmful. So if in doubt, continue chest compressions, following the instructions of the AED until paramedics arrive.

[00:11:54] **Caroline Lavallée** While the AED monitored Philip, signs appeared that things were heading in a positive direction.

[00:12:03] **Mitchell Myers** I remember talking to Philip, and you just say, "Listen, you know, I got you. I need you to pull through. We're all here...," kind of thing, you know, working through that second cycle. It



appeared as though there was some signs of life coming from him. And I believe we went through two cycles, after the shock. There was a no shock advise. I felt for a carotid pulse, but I wasn't confident I had felt it right away. I remember and it's scary and kind of freaky to think about it, but at one point you're in the thirdish, fourth cycle, Philip came to, and it was like life had entered his body, and he let a roar and his eyes opened. I jumped, like I remember it scared the heck out of me. At that point, I was just like, "OK. Leave the AED on. Give me a second. I'm checking for a pulse".

[00:12:48] **Caroline Lavallée** The AED had been on Philip for almost 25 minutes when the emergency medical services team arrived. The hockey players stepped aside, and Philip was taken to the hospital. Philip was conscious when he left the hockey rink. He even remembers asking if his team had won the game, but at that point, there was no way of knowing what his future looked like. So out of respect for Philip and everyone in attendance, the tournament was shut down for the rest of the day. We often hear stories of cardiac arrests occurring during physical activity like sports, so we asked Dr. Brooks if there is a connection.

[00:13:37] **Dr. Steven Brooks** Physical activity is a trigger for cardiac arrest in rare occasions. So I think it's very important to understand that physical activity is a wonderful thing and the positive effects and benefits of physical activity are well recognized at reducing your risk for all sorts of cardiovascular diseases and making sure that you have a long and healthy life. But physical activity does put the heart into a situation where it's working harder, and oxygen demand for the heart muscle itself increases with physical activity. The heart rate often increases with physical activity, and those things can unmask some rare underlying conditions that can in those people with underlying conditions sometimes lead to cardiac arrest.

An example would be in the case of someone with an underlying cardiac electrical problem that is unrecognized. Similarly, someone who has blocked cardiac arteries from atherosclerosis related to their genetics or related to other risk factors like diabetes or high blood pressure. Physical activity and the increased heart rate and increased blood pressure that can occur in that situation can trigger a cardiac arrest when there's not enough blood flow getting to the heart muscle itself.

[00:15:01] Caroline Lavallée Is a heart attack different from cardiac arrest?

[00:15:05] **Dr. Steven Brooks** A heart attack can lead to cardiac arrests. And in fact, heart attacks are the most common cause of cardiac arrest. But many heart attacks don't ultimately become cardiac arrests. That's important to understand. Most people who experience heart attack remain conscious and alert and experience a number of symptoms, including chest pain, chest pressure, sweating, nausea, shortness of breath, and require emergency treatment, and most do not experience cardiac arrests.

[00:15:40] **Caroline Lavallée** Philip spent a week in the hospital. He had a successful procedure to implant stents and open blocked arteries. Eventually, he was able to reconnect with the fellow hockey players who had helped save his life.

[00:15:56] **Philip Sullivan** So when they were wrapping up this tournament a few weeks later, I was well enough. And I went out to the rink and thanked all the guys and girls for saving my life, and got a bit of a rundown of, do you remember this, do you remember that?

[00:16:12] **Caroline Lavallée** Philip's resuscitation story is rare. Only about 10% of people who experience a cardiac arrest in a public place have an AED used before emergency medical services arrive. Unfortunately, less than half of people in cardiac arrest receive CPR, and only one in 10 survive.



But Dr. Brooks shared some new innovations that will hopefully increase the use of AEDs in the community.

[00:16:44] Dr. Steven Brooks So new approaches include using historical data showing where cardiac arrests are happening, communities where they're most likely, and then trying to align where we place defibrillators in the places where cardiac arrest risk is highest.

And then the last innovation that I'll highlight is that there are many companies trying to change the design of AEDs so that instead of expensive, heavy and maybe poorly portable boxes that we need to place statically on a wall in a location and hope that they're found and retrieved during an emergency, changing the design so that we can consider maybe the idea of a personal access defibrillator, a consumer electronic product that everyone might be able to consider owning in the future. Putting AEDs on the home safety landscape similar to fire extinguishers or smoke detectors, designing things that are much less at price, maybe a 10th of the price of the conventional AED and something that can fit in a pocket or a bag, rather than have to sit on a wall in a cabinet.

[00:17:58] Caroline Lavallée For anyone that might feel intimidated to use an AED, Mitchell shared some final words.

[00:18:05] Mitchell Myers Any AED that's out there on the market right now will slowly and calmly walk you through assisting someone in cardiac arrest. AEDs are easy. They're safe. They have a calming effect. They tell you what you need to do. And you can't hurt somebody that's deceased. So don't be scared to try.

[00:18:29] Caroline Lavallée If someone is experiencing cardiac arrest, they need your help. You don't need training to help save their life. It takes four simple steps. Call 911, shout for someone to look for an AED, start CPR, and use the AED if there is one.

If you want to learn the CPR basics and how to use an AED, you can start by watching Heart & Stroke's video at heartandstroke.ca/CPR. It's only 90 seconds. And remember, when you call 911, the dispatcher will talk you through everything you need to do; so will an AED. They're designed to be used by people like me and you. And these devices can be the difference between life and death.

Thank you, Philip and Mitchell, for sharing your story. And thank you, Dr. Brooks, for offering your expertise. I hope you enjoyed the episode. Stay tuned for an episode where we ask you cardiologist, some of the common questions we get from our listeners.

Thanks for listening to The Beat. And a special thanks to our donors for making this podcast possible. I hope you'll take away some valuable insights from today's episode, and maybe you'll be inspired to join a community that's determined to beat heart disease and stroke. Subscribe now to stay informed, get inspired and rediscover hope. Don't forget to rate and review the podcast so we can reach even more listeners. Stay tuned for our next episode. Until next time, I'm Caroline Lavallée.

