Transcript: After the Avalanche

Note: Episodes of Outside/In are made as pieces of audio, and some context and nuance may be lost on the page. Transcripts are generated using a combination of speech recognition software and human transcribers, and may contain errors.

**Jessica Hunt: A quick heads up - this is a pretty emotionally intense story. Just thought you should know in advance.**

**Nate Hegyi:  On April 11, 2019, the weather was what backcountry skiers call a bluebird day. The sky was piercingly blue, the snow was sparkling, and the sun was warm.**

Frank: It was clear, sunny…The kind of day that brings people out to recreate.

**Nate: And Frank Carus was investigating a possible avalanche.**

*Radio Dispatcher: Hey Frank, we’ve got [unintelligible] on the line. What’s the message you exactly want me to pass on to him?*

*Frank Carus [radio transmission]: It appears we have another human-triggered avalanche.*

**He could see what’s called a crown line. It’s a cut across the snow where everything underneath it has fractured and tumbled down the slope.**

**Frank Carus**: So I got into a position where I could use the binoculars, I thought I saw ski tracks going into it. It's kind of hard to tell because of slight snow is pretty firm. I could not really confirm that there was just one, but my suspicion, my hackles were up [00:26:47-00:26:56] so I got my skis, ate an avocado and took off on the snowmobile.

**Nate Hegyi: At the time, Frank Carus was Lead snow ranger and the director of the Mt. Washington Avalanche Center in New Hampshire. With more and more skiers venturing out into the backcountry, it was his job to assess avalanche risk and conduct “search and rescue” efforts when something went wrong.**

**And you might notice Frank sounds remarkably calm - and this is exactly the kind of quality you want in someone with this job.**

*Frank Carus [radio transmission]: I just (picked) my way in. There is no, there are no tracks below the debris.*

**Nate Hegyi: Frank was pretty sure he could see ski tracks going into the avalanche - but it didn’t look like anybody had come out the other side.**

*Frank Carus. May very well be nothing happened but this is D-2 or more. (And It can't be all that).*

**Nate Hegyi: “D-2 or more.” Avalanches have their own rating system, like hurricane categories or the Richter scale.**

**They range from a D-1 to a D-5, where the ‘D’ stands for “destructive size.”**

**A D-1 is minor - loose snow sliding down the mountain. This was a D-2… which doesn’t sound particularly impressive, but it’s still big enough to bury a person.**

**Frank Carus**: I turned my beacon not really expecting to find anything because up to this point in our area of the 14 avalanche fatalities that we've had since 1950, not a single one of those people had been wearing an avalanche beacon. And today, someone, Nick was… wearing an avalanche beacon.

*Frank Carus [radio transmission]: Have a signal, have a beacon signal 10 meters out.*

**Nate Hegyi: An avalanche beacon works like the metal detectors people use on beaches. The closer you get, the faster it beeps. So if it starts beeping rapidly, and you can’t see anybody in front of you - that means they’re probably underneath you.**

**Under the snow.**

**Frank Carus:** [00:32:52-00:33:13] you take out what's called a probe or avalanche probe, rescue probe…and assemble that, It's basically like a 10 foot long tent pole with a point on it. And you drive that down into the snow to do what's called a pinpoint search.

*[mux quietly fades in]*

And you are basically hoping to a strike an object that feels like a person.

**Frank Carus:** And in this case I did, I hit his leg about 5 feet down.

*Frank Carus [radio transmission]: Positive probe, probe strike at a meter.*

And about that same time, when I hit him with the probe, I heard a noise out of the snow pack at a moaning sound.

*Frank Carus [radio transmission]: Have moaning.*

*[Long silence]*

*Grab anyone that can hold a shovel.*

*[Long silence]*

*Need more diggers.*

Jessica Hunt: How many times has this… has this happened to you before?

Frank Carus: No, you mean found somebody alive in the snow? No.

*[Mux swell]*

**Nate Hegyi:  This is Outside/In, a show about the natural world and how we use it.  I’m Nate Hegyi.**

**Every year, dozens of people get trapped in avalanches across the country. Most of these happen on mountains out West… but every once in a blue moon someone gets trapped by an avalanche in New England. A place that’s often belittled for having less elevation, less snow… less backcountry… Where rescuers there are trained for the worst… but they rarely encounter it. So what happens when the bad day finally arrives?**

Frank Carus: I don’t try to live with regrets. Would you do something different? Maybe. But hindsight is always 20/20, right?

**Today, producer Jessica Hunt brings us the story of a rescue gone sideways. A lone skier who kicked off an avalanche in New England and the people who tried to save him.**

[Theme fade]

**Jessica Hunt: When Frank first struck a body with his probe, it was about 2:18 in the afternoon…**

**The skier was 32-year old Nick Benedix - but Frank didn’t know his name at the time. Nor did he know how long Nick had been buried - which at that point, was somewhere around two hours.**

Jessica Hunt: Did you know how long he’d been there?

Frank Carus: I had no idea.

***And* Frank had no idea what kind of shape he would be in.**

**The terrain of New England means that, if you’re caught up in an avalanche, you’re likely to be swept into trees or bounced off rocks…You can suffer traumatic internal injuries, or be killed instantly.**

**If not, you can asphyxiate, poisoned by the carbon dioxide of your own breath collecting under the snow.**

**Or you can get hypothermia, and die of the cold.**

**Either way, nobody can survive if they’re buried too long.**

Frank Carus: I got the probe strike, put my beacon away and then just dug like there's no tomorrow…And, you know, what is the equivalent of like the type of density snow that you might have plowed up at the end of your driveway? …that sort of density. So stepped back and dug in and moved somewhere around a metric ton and a half of snow to get to his head.

Jessica Hunt: That seems like a lot.

Frank Carus: Yeah, I mean. Yeah.

[Mux swell and fade]

**Nick had been buried in almost a sitting position - like he had been leaning back on his skis. His arms were reaching out like he was trying to grab onto something.**

**Frank unearthed his face.**

**Nick was wearing a white helmet, and an olive green fleece.**

 Frank *Carus [radio transmission]: Got his face… we have an airway.*

**Nick was moaning, and out of it. He couldn’t focus his eyes on Frank.**

Frank Carus: And I was really shocked that he'd survived…that he was alive. He didn't sound good. He wasn't really responding to me.

*Frank Carus [radio transmission]:  Call a, call a medevac.*

Frank: Believe it or not, I just stopped. I was exhausted and my hands were kind of frozen. Around that time, help had arrived.

Jeff Fongemie: [00:55:57-00:56:39] I saw Frank and Frank had Nick partially unburied….I look over there and I think, okay, that's know that's positive. That's a good thing.

**Jessica Hunt:  Jeff Fongemie is the current director of the Mt. Washington Avalanche Center, but at the time he was a snow ranger.  He drove a tracked snow groomer called a “piston bully”, as close as he could to the site of the avalanche, and then walked the rest of the way.**

**A couple of other skiers who happened on scene ran to get a rescue litter - Jeff grabbed a shovel and started digging.**

Jeff Fongemie: So we both took turns digging. It was hard, it was hard work digging through the snow. The avalanche debris is all chopped up and turned around, and it gets packed in hard.

**Overall, the avalanche wasn’t that deep - at the crown line it was, on average, only about 18 inches of snow.**

**But it tumbled into a deep gully called Raymond’s Cataract - where it was funneled into a narrow stream bed.**

**Rescuers call this “a terrain trap.” Nick was buried at one of the avalanche’s thickest points.**

Jeff Fongemie: Getting his feet out was hard.

Frank Carus: You know, his feet were over six feet down in the snow.

Jeff Fongemie: I think there were some roots down there that we had to tangle with a little bit.

Frank Carus:  one ski was still attached and it was over six feet deep.

Jeff Fongemie: And Nick was, Nick was fighting at that point. He wasn't just it wasn't just that he was. Alive. He was fighting to get himself out of the snow at that point. .

*Frank Carus [radio transmission]:  Male, verbally responsive, has an airway, uncertain about other injuries.*

Frank Carus: We’d exposed Nick’s torso and femur and I did like a rapid trauma check, squeezing his chest and his, checking his spine, checking his pelvis and femurs for major bleeds or anything that could be addressed right away. Didn't find anything. And in fact, as soon as we had freed him from his backpack strap, which was still sort of buried, he stood up, he actually fully stood up.

[Mux]

Frank: Still kind of moaning and out of it, not able to focus with his eyes on me, not able to respond to any commands.

*Helon Hoffer: Copy all that. We're in the process of getting a helicopter here into the Pinkham parking lot.*

Frank Carus: And right after he stood up, he said, you know, within a minute or two he collapsed forward.

Jessica Hunt: So what did you think when he collapsed?

Jeff Fongemie:  You know, I don't know.

Jessica Hunt: Like. Oh, shit. Or what?

Jeff Fongemie: Like, yeah, a little bit. I mean, it was we were I think we were both surprised. He seemed, you know, he seemed strong…. He was fighting.

[Music]

**Jessica Hunt: There’s a phenomenon called circum-rescue collapse.**

**When your body is under a lot of pressure from heavy snow, taking that pressure off sets off a chain reaction.**

**Your blood pressure plummets.**

**Suddenly, you’re not getting enough oxygen to the heart or brain.**

**You can go into shock, and faint. And your heart can stop beating.**

Jeff Fongemie: And I think the collapse is something that we didn't we didn't expect. We laid him down on our platform… you know it takes a minute. I remember…  I'm sure it was seconds, but it feels like minutes when you just look and you think, is this really happening? Next thing you know, you're feeling for a pulse. And we couldn't find one.

**The problem with hypothermia is, you can’t actually *tell* when a heart has stopped beating.**

**And just because you can’t feel a pulse - doesn’t mean it isn’t there.**

Nick Weinberg: And that's why there is the old adage they're not dead until they're warm and dead.

**Jessica Hunt: That’s coming up, after a break.**

…………………………..

**Nate Hegyi: Welcome back to Outside/In. I’m Nate Hegyi.**

**There are somewhere between three and five stages of hypothermia, depending on who you ask.**

**A lot of people have had a brush with the first one - where you shiver uncontrollably, and feel like you can’t warm up until you’ve had a hot shower.**

**But the third stage, *severe* hypothermia, is not something most people will ever experience.**

Nick Weinberg: Severe hypothermia is quite rare. I will say in 10 years of practicing as an emergency physician in cold environments, I've seen a handful of these. It's very rare.

**Jessica Hunt: Nick Weinberg is an emergency physician at Dartmouth-Hitchcock Medical Center in Lebanon, New Hampshire…and one of his specialties is wilderness medicine.**

**He’s also a backcountry skier himself - actually, when we spoke he was about to go on a trip to Georgia - the *country* - to ski in the Caucus Mountains.**

Nick: I’ve skied most of the ravines on Mount Washington, or many of them.

**If you’re severely hypothermic, your system shuts down. You might look dead, you might not have a detectable pulse, but you might not actually be dead.**

Nick Weinberg: Their peripheral blood vessels are clamped down and their heart may be beating extremely slowly. So you may not even feel a pulse, even though their heart might actually be working. It's just slowed down. …And that's why there is the old adage they're not dead until they're warm and dead. So you wouldn't stop resuscitating a patient until you've warmed them up and then you find that they don't have a pulse...

**Nate Hegyi: In order to have a fighting chance, patients like this ought to be warmed from the inside out.**

**A hypothermic heart is unstable and weak. Warming from the *outside* can actually make it worse.**

**Enter “Extracorporeal Membrane Oxygenation” or ECMO.**

**ECMO is one of the highest levels of life support, higher even than a ventilator.**

**The machine takes the blood out of a body, warms it up, removes carbon dioxide, then pumps the blood back in the body …All while filling in for the heart and lungs.**

**If a severely hypothermic patient makes it to an ECMO center - they can basically get brought back from the dead.**

Nick Weinberg: The data says that if you have a patient with a witnessed cardiac arrest from hypothermia…so they are dead, essentially. And you transport them to an ECMO center, they have a 50 percent….some studies say even 60 percent survival to full neurological capability…. that's like an amazing statistic.

[Mux]

*Radio Dispatcher: Is CPR continuing?*

*Frank Carus [radio transmission]: Either we can’t find pulse or don’t trust it.*

**NH: Before the break, snow rangers Frank Carus and Jeff Fongemie were digging skier Nick Benedix out from under an avalanche on Mount Washington.**

**As far as they could tell, Nick didn’t have a pulse. But he was young and in great shape. He was even breathing.**

**Nick had severe hypothermia - but he was exactly the sort of person who *might* be saved by an ECMO machine.**

**Producer Jessica Hunt picks the story back up from here.**

[Mux fades]

**Jessica Hunt: When you think of CPR, you might think of the song Staying’ Alive. If you’re doing chest compressions, you want to keep a regular rhythm as much as possible.**

**But when a patient’s temperature has dropped below a certain threshold you don’t actually need to keep the beat.**

**That’s because of a phenomenon called “metabolic icebox.” Severe hypothermia basically puts your organs, your brain - your need for oxygen - on ice.**

**At that point, even irregular, intermittent CPR can help keep a patient alive until they get to an ECMO center.**

**Which is *exactly* what Frank started doing.**

Frank Carus: I started CPR initially. He was breathing agonally, they call it fish breathing when someone's dying, when you're like. [Gasp] [Gasp]

 Really spaced out, not healthy breaths.

 *Frank Carus [radio transmission]: What sort of medical, advanced medical do you have coming?*

*Radio Dispatcher****:*** *Lifeflight is in the air.*

*Frank Carus [radio transmission]: Ok, we need to get him there.*

**Jessica Hunt: Frank started intermittent CPR at 2:34 - at this point, more than two and half hours since the avalanche first buried Nick.**

Frank Carus:  He's in a sled, you know, a rescue litter, toboggan on the snow we're sliding him through the woods. You know, one hand on the litter, one hand on his chest pumping as best we can….A couple other people or pulling on ropes. And we're trying to keep the sled from falling, with him falling into the stream bed.

**Jessica Hunt: Meanwhile, Frank is also keeping medics notified by radio - he knew that Nick still had a chance, even though they couldn’t find a pulse.**

*Frank Carus [radio transmission]: OK. Just for a plan purposes, there appeared to be deep hypothermia or pretty solid hypothermia and he might be assisted by extra corporeal oxygenation and an external and internal rewarming effort.*

**Jessica Hunt: When Frank and his crew had gotten Nick to the parking lot at the base of Mount Washington, it was 3:30. They had been giving him intermittent CPR for an hour - ever since he first collapsed...**

Frank Carus: By the time we got there, there was an ambulance and a flight crew of paramedics and nurses and whatnot waiting to receive us.

JH: And a helicopter?

Frank: We yeah, the helicopter landed there.

JH: Was there already?

Frank: Yeah, yeah. …They worked on him and we transferred them and they worked on him for 20 minutes and before declaring death.

 JH: Where was he headed? Where was he going?

Frank: They didn't go anywhere.

JH: They didn't go anywhere?

Frank: No.

**Jessica Hunt: Nick was declared dead - from hypothermia - at 4pm. He was never flown to an ECMO center. The flight medics only gave him 20 minutes of CPR before making the call.**

[Mux swell]

Denise Butler: He would always text me on these adventures. It would be 6am in the morning. And he’d be like, I’m going here and here and here, I’m going to park my car here.

**Jessica Hunt: This is Nick’s partner, Denise Butler. That afternoon, she was still waiting for him to check in.**

**But he never did.**

Denise Butler: And you know I got that sinking family, I was out on a walk with my Mom. And just had this really sinking family, and saw on the news - oh, avalanche fatality on Washington. And I knew. Uh. Yeah.

News clip [WMUR]: Rescuers performed CPR as they traveled down the mountain, a Medivac helicopter was on site at the time but medics pronounced the man dead, experts say the snow can be unpredictable this time of year…

[Music beat]

**So who was Nick Benedix? Denise says he was a quiet guy, with a love of 70s bands like Queen and Rush.**

Denise Butler: Just this tall, lanky, goofy kid.

**But more to the point… what happened?**

Denise Butler: I think when it first happened, I was mad at search and rescue.

**After a tragedy like this people tend to start asking: Where did things go wrong? Who messed up?**

**Why didn’t the flight medics take Nick to an ECMO center?**

**I reached out to the flight nurse in charge that day, and the medivac company - LifeFlight of Maine - but they both declined to comment.**

**But it turns out, state protocols at that time wouldn’t allow them to take off with a patient who didn’t have a pulse.**

**That’s because it’s dangerous to administer CPR in a moving helicopter.**

**If this were any other type of cardiac arrest - this wouldn’t have been a controversial case.**

**But remember, Dr. Weinberg said a severely hypothermic patient shouldn’t be considered dead, until they’re warm and dead. Even if that means putting CPR on hold.**

**So did the flight medics screw up? You could argue that they did.**

**But was it their fault if they were just following protocols? Especially when severe hypothermia is so rare?**

**……… [Mux].......**

**So then… what about Nick.**

**Did he screw up by going out there in the first place?**

**It sounds awful to blame the victim of an avalanche, but a lot of folks who get hurt or killed on Mount Washington are woefully underprepared.**

**And Nick was skiing alone in the backcountry which is never a good idea.**

**But frankly, a lot of people do it.**

**The avalanche risk that day was rated moderate, and Nick had a lot of experience - he’d been skiing since he was a toddler. . The day he hiked up Mount Washington, he had a ski repair kit, a first aid kit, and a notebook with notes about snow crystal types.**

Denise Butler: His entire bedroom was gear, climbing gear, ski gear. …it was old and tattered, but he was prepared, you know?

**One reason I think this case is so upsetting, is because you can look back at mistakes that were made - but you can’t know if anything would have changed the outcome.**

**Even if Nick had been transported to an ECMO center… even if he had been found earlier, or had skied with a partner… he still might’ve died that day.**

Denise Butler: And so, I think that anger has just turned into like hopefully it doesn't happen to the next person and hopefully there are resources that are there for backcountry skiers in Mount Washington as it gets to be a more popular spot.

[Mux]

Jessica Hunt: What were you doing? While he is getting worked on for 20 minutes.

Frank Carus: I actually went and sat on the piston bully and cried for five or ten minutes. And I was exhausted and really shaken up and really felt that he could have been any one of my friends or members of the community, could have been me. He made a decision to ski alone that day…. You know, it's always risky, but it's not at all unusual for people that have a pretty good sense of snow and avalanches. So….he had no trauma and he died of hypothermia, basically. So if someone had been there and was able to excavate him and dig him out, he would have just got up and walked away. ….That's pretty heavy stuff.

 JH: Yeah, yeah, yeah. On a Beautiful day. Yeah.

**Jessica Hunt: Frank Carus did everything he could - and as far as we know, he did everything right.  But Nick’s death took a toll on him.**

**He had nightmares of being the one under the snow, flashbacks, and angry outbursts that prompted him to seek help.**

**When there’s an avalanche rescue, a lot of time what responders are really doing is just looking for a body.**

**So imagine finding a person buried alive under a ton of seeing the person stand up, after so much effort.**

**And then the despair when those ambulance doors closed, and the helicopter didn’t take off.**

**This was a chance to actually save someone, and it must have been a shock when Nick was declared dead.**

**The Mt. Washington Avalanche Center snow rangers have access to counselors. But like other first responders, you have to be a willing participant to benefit - and not everybody may know how to seek help when it comes to PTSD - or recognize it months later.**

**Here’s Jeff Fongemie.**

Jeff Fongemie: One of the regrets that I have is that as a rescue team, we were not set up very well to take care of each other as teammates as far as mental health goes and stress of that sort of event. ….we were able to sit down with a with a mental health counselor as a group…. And I think that was beneficial for some of us. So I'm hoping that if this were to happen again, I think we'd have better resources for us as rescuers to try and process what happened and potentially protect ourselves from these events. It could happen again.

Jessica Hunt:  Do you have better resources or are you more aware that you should have better resources?

Jeff Fongemie: Or more aware that we should have better resources? That's a good distinction. Thank you. Yeah. Yeah. We have resources, but I'm not entirely satisfied with the resources yet. We need to do better.

**It’s definite progress from the days of debriefing after a traumatic experience with a beer at a bar. But in researching this story, I found a lot of search and rescue folks don’t want to talk about what they do.**

**Maybe they don’t want to be seen as some kind of hero, or to make an adventure story out of other people’s tragedies or  mishaps…or maybe it’s part of the “stiff upper lip - suck it up” ethos.**

Jeff Fongemie: Sometimes it happens right away, and sometimes these events are like scars they accumulate until you reach a tipping point.…some individuals aren't going to want to open up and talk in front of other people…~~,~~ like with the director, want to go into a meeting and start crying, you know, is that a leadership role if you're showing your emotion?... I'm personally, I'm fine with that, but…some people are just not comfortable talking about things in front of other people. So it's…the answer is complicated.

[Mux]

**Jessica Hunt:  EMT protocols have changed in New Hampshire since Nick’s death…and that was really propelled by the grief and anger Frank Carus felt; he channeled it, in a way, into making sure no one dies like this again.**

**Regulations now allow for transporting severely hypothermic patients to ECMO centers, regardless of whether they have a pulse,**

**They’ve also extended the amount of time CPR is performed…Even if it has to be paused for the patient to be airlifted.**

**Frank eventually left the Mount Washington Avalanche Center, and moved out to the Tetons.**

**He’s still doing avalanche forecasts, but he’s not in charge of search and rescue anymore.**

**He leapt at the chance to move to a quote “dream location” and leave behind the hardest parts of the job: the injured bodies, the conversations with families.**

[Mux]

**Jessica Hunt: Experience and risk are entangled for wilderness EMTS, in a way that is different from other first responders.**

**Firefighters, for example, can go through similar trauma in trying to save lives… but in the backcountry, you’re likely to have a lot in common with the people you save.**

**The line between rescuers, and the folks in trouble can be very, very thin.**

Jeff Fongemie: It's an awfully small community. We all we all know each other like Nick, you know, Nick. Nick Benedix, when he came out of the snow, Frank and I didn't talk about this, but…It happened to me. You look and you see who it is, and you want to think, do I know this person? Do I recognize that face? And we didn't we didn't recognize the face. Neither of us had met him before. But he looks like 75 other people that we know….So, yeah, it could totally be one of us.

**There’s a move lately, in the avalanche safety community, to change the term “risk” assessment… to “loss” assessment. How much are you willing to lose for this run?**

**And who are you leaving behind?**

**Avalanches are notorious for creating what’s known as a “wicked” learning environment. When a situation arrives - you either survive, and learn from it. Or you don’t.**

**But the people who love to ski the backcountry, love it. And they’re going to be out there… regardless.**

**Especially on a bluebird day.**

**END**

**Nate Hegyi: To learn more about avalanche safety, severe hypothermia, and to read the Mount Washington Avalanche Center’s report after Nick’s death, go to our website - Outside in radio dot org - or check out the links in our show notes.**

Outside/In was produced and reported this week by Jessica Hunt.

It was edited by Taylor Quimby and Nate Hegyi, with help and feedback from Rebecca Lavoie, Justine Paradis, Felix Poon, Erika Janik, Sam Evans-Brown, Jimmy Gutierrez, and Christina Philips.

It was mixed by Taylor Quimby.

Our executive producer is Rebecca Lavoie.

Special thanks to Matt Dustin, Ty Gagne, Frank Hubbell, and Andrew Parrella.

Music in this episode from Blue Dot Sessions .

Our theme music is by Breakmaster Cylinder.

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Outside/In is a production of NHPR.