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Matt: This was a lesson that Nobel Laureate, Priestley Medalist, and click-chemistry innovator K. Barry Sharpless learned back in 1970. He, too, has been very open about sharing his story so that other people can learn from it. To close out this episode, you're going to hear that story from the man himself.

K. Barry Sharpless: It was just a typical night for me. I worked nights often when I was writing proposals or papers. And it was three in the morning and I was getting ready to go home. So I put my parka on and had my briefcase and I called my wife. This shows you how weird schedules were, because it was Sunday morning and I called her I said I was going to be walking home.

I went down to my lab in Building 18, Dreyfus Building at MIT. It was on the first floor, and I found one of my students there, a really intense fella from the Bronx. And he was working in the hood and he had an NMR tube. He said, "I've almost got it sealed I think." And he was sealing it the wrong way. An NMR tube has usually half an inch of liquid at most in it at the bottom. And this thing had about an inch and a half. And I thought, "That's strange," but I took it out of the dewar because it was in liquid

nitrogen. And he was blowing nitrogen into it, but unfortunately lots of atmospheric oxygen was coming down too.

And so he condensed, about two thirds of that thing was liquid oxygen. That boils . . . well, it goes through the critical point, it just goes instantly to the vapor phase. Then, right in that moment, it actually just went down to the normal level, like a half an inch of solvent. And I said, "My god," and I started to push the thing away.

Matt: But it was too late. All that liquid oxygen that condensed in the sealed NMR tube vaporized. The pressure inside shot up and the glass tube exploded. Barry wasn't wearing his safety glasses.

K. Barry Sharpless: So the thing went right into my eye. And then everything started cascading after that. We actually called Whitesides, George Whitesides who was upstairs. So I said get George and then I said we should call my wife and tell her, "OK. Now I just had an accident, an explosion. I have to go to Mass Eye and Ear."

And then she just ran out in the street there in Central Square with her bathrobe on and caught a police cruiser who was just hanging out at Central Square. They drove her to Mass Eye and Ear. She got there before I did.

They put us in a waiting room and I lay down my head on Jan's lap and and waited for the doctors. The doctors, they'd had a terrible accident and the Mass Pike and had about six eye injuries with glass, flying glass, and so all the eye and ear people were tied up with that. So it wasn't until after sunrise that a doctor came and he was a doctor for pediatric ophthalmology, Dr. Petersen.

And he put me in the operating room. And I had had a doughnut before I got into the accident. So he said, "I can't put you to sleep." They kept me awake, which wasn't much fun. I just remember that I couldn't see it myself, but they could see that the eye was deflating. The juice ran out of it. And then they would be talking about how they couldn't, how they couldn't find the pieces to tie together because it was a star laceration of the cornea and this glass had gone into the lens, so the lens had been nicked. The iris had had glass go through it and that caused a huge

amount of extra light to come in, so it was very painful to be in bright sun without sunglasses.

Matt: Barry ended up losing sight in his left eye. It was a long recovery. He spent weeks in the hospital. Once Barry was released, he had to go back to Dr. Petersen's office for months for follow-ups.

K. Barry Sharpless: And his was a pediatric office. And I had to get down on my knees and get myself into the small little chair so they could do the examination. And when I would try and make a reservation myself, the nurse that was in charge of that would say, "Well Barry, is your mother coming with you?" *Laughs.*

Matt: So Barry kept his sense of humor, but he did make some changes. For instance, reading became harder and he had to start taking frequent breaks from books and manuscripts. He also decided to stop riding motorcycles.

But he says the biggest change that came with losing his sight was what he started noticing.

K. Barry Sharpless: When I was young, I wouldn't have noticed whether people had a ski helmet on, but the thing that I always noticed after the accident when I walked into anybody's lab with somebody working without safety glasses. They were essentially looking naked suddenly to me. I could see it like it was a screaming message to me to do something about it. And now I tell my own people when I saw them that way they should just get out of the lab and then don't come back until you get your safety glasses.