

Photo by Peter Zelinka. Fortunately for Peter's health, this storm was going away from him but still provided lots of stunning lightning near Canfield, Ohio.

Sunday night, May 31, 2015. I was feeling like the luckiest guy in the world after surviving a lightning strike on Black Mountain in New York on the Appalachian Trail (AT) earlier that day. I was fortunate to be able to walk off the mountain. Dozens of people each year across the U.S. aren't so lucky. Lightning kills, and being caught in an electrical storm is risky business. It's a reminder that came to me hard and fast that afternoon on the AT in Harriman State Park. Here's my story.

I was making good progress Sunday morning. My goal for the day was to hike an ambitious 19-mile trek from N.Y. 17, a highway crossing of the AT, to Bear Mountain State Park along the Hudson River. Rain and possible thunder storms were in the forecast that day, and this section is not as easy as the elevation profile suggests. The terrain is rugged with lots of boulders and short, steep climbs that would be slippery in the rain. As an experienced long-distance hiker working on my fourth end-to-end completion of the AT, I was aware of the risk. Over the past 26 years and 8,400 miles of AT hiking, I have endured many thunderstorms. My hope was that I could make the short 250 foot elevation change up and over Black Mountain before the thunderstorms hit. I was undeterred by the danger, but looking back now I realize I was more complacent than concerned about the risk.

Good hiking weather prevailed throughout the morning, and I was moving quickly. By early afternoon, I was 10 miles in. I took a short break at the William Bryant Memorial Shelter where I met three other northbound hikers. We exchanged pleasantries, and I kept moving, determined to meet my day's mileage goal.

A light rain started about 45 minutes later but quickly became increasingly heavy. Stopping to put on my rain gear, I could hear

the sound of thunder in the distance. I happened to spot one of the three hikers I had met earlier at the shelter. Papa John (PJ) had decided to wait out the thunderstorm on lower ground. He hated hiking in thunderstorms. I hated hiking in thunderstorms and should have stopped at that point. But I convinced myself that "it wasn't that bad," and pressed ahead. I turned a blind eye to my personal safety.

I reached a flat, open, exposed area and, on a clear day, would have stopped to take in the spectacular views of the valley. But the storm would soon be on top of me, and serious concern began to take hold when I realized that the descent down the other side of Black Mountain was not imminent. I had one more rise to climb. By this time, the rain was pouring, and water was accumulating fast in the hollow of the trail. The trail had become a stream.

I was wet, soaked from head to toe. The concern of a lightning strike became more palpable. I decided to carry my hiking poles instead of placing them in the ground and headed toward the final rise. A quick scrabble up and over would take me to the safety of the lower areas.

Then it happened. I felt a tremendous electrical surge hit my entire body. My back arched. Every muscle in my body clenched. The intensity of the contracted muscles could have broken a bone. I gasped for air. I was blinded by an orange flash of light and lost most of my hearing. The jolt knocked me backwards on my backpack down an incline. I smelled a whiff of something burning. The excruciating pain lasted a brief millisecond. Yet, in the aftermath, I had no pain except for a sensation of complete numbness in my feet. I lay sprawled on the ground fully conscious of what had just happened.

As the thunder, lightning, and rain continued, there was no time to panic. I scrambled to take evasive action. Moving any



This is a picture of a multicolored cloud formation above a very dark threatening cumulonimbus cloud formation that produced a rapid temperature drop, hail, lightning, and thunder on the Trail, October, 2015. "I had never seen such shades of pink, gold, and turquoise before. Despite its beauty, it is a good reminder to look up and pay attention to weather that can easily injure us." Dr. Eric D. Rehorst, North Country Trail Hikers Chapter.

significant distance to lower ground was not feasible, and the tall trees overhanging the trail were potential electrical conductors. I took my only option. I threw my poles as far away from me as I could to get rid of any metal around me. I retreated to a low, grassy area and unfurled my foam sleeping pad. I assumed a low body position on the ground, praying the pad would insulate me from a second or third strike, should they come. But I knew that there is no safe place outside during an electrical storm.

I waited. The thunder storm started to move. It was no longer directly above me. As the danger passed, my wilderness first aid responder training kicked in. I knew that lightning strikes are very serious. Untreated cardiac events are often fatal. Serious burns can occur at the entry and exit points of the electrical charge. Strikes have other serious side effects, too, that affect the body's entire neurological function.

I took a quick assessment. I had no apparent injuries that I could diagnose and was slowly regaining strength and sensation in my feet. I was able to talk, to stand, and to walk. I knew I was only one mile from the Palisades Parkway. But I made the wise decision to call 911. The dispatcher patched me through to the State Park Police who would help me get medical attention. As I waited for instructions from the ranger as to the meet-up location, I spotted PJ. I waved him over to explain what had happened. The threat of lightning had passed, and he agreed to walk out with me in case I collapsed on the mile-long hike down to the Palisades Parkway, the nearest road. I felt OK, but heart failure or stroke was a real possibility so soon after such major trauma. I was transported to Nyack Hospital in an emergency vehicle. Lucky for me, my blood work, EKG, and chest x-rays came back normal, and I was discharged a few hours later without requiring medical treatment.

I have replayed all of the "should haves" in my mind a dozen times. I should have checked the weather radar; I should have sought shelter at the first sound of thunder; I should have retreated to a lower elevation when I realized the summit of Black Mountain was flat. I should not have allowed the mile goal that day to obscure my judgment.

I do a lot of hiking, and I lead group hikes including hikes on the AT. I would never have taken this risk with others since their safety is always my primary concern. As difficult as my disregard for my own personal safety is to admit, I want fellow hikers to

avoid making the mistakes I made by sharing my experience and concluding with important reminders for all back country hikers from the National Outdoor Leadership School (NOLS).

"Backcountry Lightning Risk Management" by John Gookin of NOLS lists these four precautions (pp. 4-6):

- "Time visits to high risk areas with weather patterns. Study weather patterns and know what the forecast is for your hike area. Be prepared to change your hiking plans if a storm is forecasted.
- Find safer terrain if you hear thunder. When you hear thunder, move to lower ground. It means that the storm is ten miles or less away. Avoid ridges and peaks because lightning tends to hit higher points of contact. Lower ground reduces your risk. If possible, descend on the side of the mountain without cloud coverage. If possible, avoid wet ground. Current travels faster along wet terrain.
- Avoid trees and long conductors once lightning gets close. Avoid standing near bushes and trees. Plants generate a charge that attracts lightning. Never stand in water, under power lines, or near metal surfaces.
- Get in the lightning position if lightning is striking nearby. Any electrostatic sensation on hair follicles should be taken as a warning of imminent danger. Take steps to minimize the impact. Put your feet together and assume a crouch position, wrapping your arms around your legs. The lightning position will not reduce your risk but it may lessen the severity of the serious injury you suffer."

These tips are ways to reduce the odds of incurring a strike, but keep in mind, the risk of a strike is always present. The best precaution is to be indoors.

By the way, my hopes of a lottery win didn't transpire. Statistics say that there's about a one in 3,000 life-time chance of being killed by a bolt of lightning. The odds of winning the Power Ball lottery in New York are a lot higher. Another lesson learned: getting struck by lightning is more likely (and more dangerous) than winning the lottery. **

Gookin, J. (2010, April). Back country lightning management. Paper presented at the 21st International Lightning Detection Conference and the 3rd International Lightning Meteorology Conference, Orlando, FL. Retrieved from http://www.nols. edu/nolspro/pdf/Lightning_Gookin_WRMC2010printmaster.pdf



Andy Niekamp ready to hike in Dayton, Ohio.