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SEPTEMBER 2011



Case Study

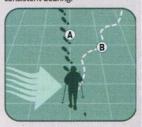
They Would've Frozen"

Name Rachel Drayer, 24, and Matt Pierce, 24 Predicament Hypothermia rescue in whiteout Location Mt. Washington, NH

- [1] Ski trails and man-made structures like fire and radio towers can help you identify landmarks to aid in navigation.
- [2] In variable weather, hike in wicking fabrics like wool or synthetics. Cotton will absorb moisture, cool. then lower your body temperature.
- [3] Headlamps, whistles, shouting, and roping up help groups stay together in fog and whiteouts.



- [4] The group avoided "summit fever" by agreeing beforehand to turn around if the weather worsened.
- [5] An early start lets groups avoid late-day storms. Plan departure time based on trip mileage and forecast.
- [6] Smart move: Raingear and warm clothing are above-treeline essentials, even during the summer.
- [7] Experience counts: Although their clients were newbie hikers, both Drayer and Pierce had explored the Presidential Range extensively.
- [8] Wind gusts on Mt. Washington reached 40 mph that day, a little above the daily 30 mph average.
- [9] When hiking above treeline in high winds, angle steps into the wind (A) to correct for its force and avoid being pushed off course (B). Use a compass or GPS to maintain a consistent hearing



[10] Essential gear they didn't have: Backpacks, food, water, a map, waterproof outerwear, warm clothing, headlamps, and a compass.

Hiking just above treeline on the eastern slope of 6,288-foot Mt. Washington, guide Rachel Drayer turned around to point out ski runs' on Wildcat Mountain to her clients. As she did, her coleader, Matt Pierce, noticed something else: a group of three hikers ascending another trail. "Are those guys wearing jeans?"2 wondered Pierce, also noticing a wall of fog rolling across the slope. As it engulfed them, air temperature and visibility plunged. The group put on headlamps,3 and resumed hiking to stay warm. Bunched up and moving cautiously, Drayer's group continued uphill towards the goal of their nine-mile dayhike:4 a high-elevation plateau below the summit.

It was August, and when the group started at 7 a.m.5 the weather was clear and mild-base-area temperatures were forecast to top 90°F that day. Still, Drayer and Pierce had confirmed that their clients carried extra food and water, insulated clothing, and raingear in their packs.6 "The clients joked, 'we'll never need this gear," Drayer recalls. "I told them, 'This is Mt. Washington. You just watch.""7

The mountain, famous for inclement weather - wind speeds here have hit 231 mph-didn't disappoint. Not long after the fog appeared, pea-size hail began falling. As they approached the cutoff trail to their destination, the hail turned to snow and the wind picked up.9 Through a gap in the snow and mist, Pierce spotted the hiking group he'd noted earlier huddling behind a boulder. He scrambled over to investigate and confirmed that all three men wore jeans and cotton sweatshirts 10 - and that they were soaked and shivering. Through chattering teeth," the young men explained that they were uninjured, but lost, cold, and scared. They had no idea what trail they were on.12

While their clients ate lunch, Drayer and Pierce put a plan together to aid the hapless hikers.13 "If we didn't, we knew we might read about their deaths in the newspaper14 the next morning," says Drayer. The two guides determined that they carried enough extra gear and food to help the victims without compromising the safety of their own group.15 First, they emptied their own packs to give the men extra food, water, and warm clothing. Then they approached their clients, asking if any of them had extra layers" or food. "We told them to give their 'extra, extra' gear, nothing they might actually need," explains Drayer. The unprepared hikers agreed to Pierce's suggestion that they all hike down-mountain together.

The summit was close, but above them, 18 so Drayer and Pierce decided to descend out of the bad weather via a shorter trail than their planned route.19 They dispersed their clients—who were strong and well-equipped20—between each of the rescue victims to help keep the groups together. Weather and visibility improved as they approached treeline, and after descending 3,300 feet using roots and trees to support themselves on the slippery trail, they reached the safety of the parking lot. 21

The rescued hikers were appreciative, but the guides asked them to recognize the mistakes they'd made, bring more gear, and consider a wilderness first-aid course. None of their clients, however, needed reminding about the importance of proper skills and gear when tackling a peak like Mt. Washington.²² "'We totally get it now,' they told us," says Drayer.

- [11] Shivering creates body heat but depletes energy quickly. Consume calories and add insulation or risk a further drop in body temperature.
- [12] Confusion and bad decisionmaking are telltale signs of mild and progressing hypothermia.
- 131 Draver and Pierce were both Wilderness First Responders, aware that these hikers' conditions could soon deteriorate to a point when they'd be unable to walk out.
- [14] More than 144 people have died in the Mt. Washington area since 1849.
- [15] A prime principle of wilderness medicine: Any rescue that creates more victims isn't worth it.
- [16] Be inventive: Pierce offered socks as mittens and a trash bag (his pack liner) as a poncho.
- [17] Bring a minimum of three layers on high altitude hikes: a wicking base, an insulator, and a breathable shell ("Field Test" page 54). Change layers as needed to avoid sweating and regulate core temperature while resting.



- [18] Mt. Washington's summit houses a visitor's center and a first-aid shed. Tempting, but risky.
- [19] The guides carried a complete area map and could navigate the mountain's trails and change their plans to speed their rescue.
- [20] Placing a strong client in the lead and asking him to maintain a slow, safe pace allowed the guides to monitor and circulate among the group during the descent.
- [21] Temperatures rise an average of 4 degrees per 1,000 feet of elevation loss. Combined with the exertion of hiking, the warmer temps revitalized the rescued hikers.
- [22] Weather that fluctuates from sunny and 90°F to rain, hail, fog, and snow is typical during the summer on many high peaks.