



Annual Mountaineering Summary: 2023

2023 Quick Facts

- **Climbers from the USA: 670 (66% of total)** US climbers hailed from 36 of the 50 states, with most US climbers coming from the standard four states: Colorado (113), Washington State (93), Alaska (87), and California (46).
- **International climbers: 351 (34% of total)** Denali welcomed international climbers from 47 countries this year, the top was Canada (42), followed by Poland (34), France (30), Switzerland (16), and Argentina (14).
- **Average trip length** Both guided and non-guided Denali climbs average 17-day trips. The average length for an NPS patrol was 21 days.
- **Average age** Submission of a climber's age is now optional when applying for a Denali permit. Based off the individuals that did disclose their age this season, the average age for male climbers was 37, while women averaged 34 years old. The youngest climber was 16, and the oldest was 79.
- **Women climbers** Women comprised 19% of climbers on Denali, or a total of 197 individuals, with 63% of women reaching the summit of Denali.
- **Volunteers-in-Parks** Denali mountaineering rangers were exceedingly grateful for the help of 50 [mountaineering Volunteers-in-Parks](https://www.nps.gov/dena/planyourvisit/mountaineeringvips.htm) (VIP's) in 2023, during what proved to be one of the busiest search and rescue seasons on record. These volunteers contributed a total of 9,432 hours.

Statistics compiled by Registration Technician Chesie Valetta

2023 Search and Rescue Summary

Avalanche Fatality (May 4) A solo backcountry skier was swept in an avalanche on a drainage of Jenny Creek near mile 10 of the Denali Park Road. Mountaineering rangers responded to the scene via helicopter, locating the deceased skier in the avalanche debris. The skier's remains were recovered via helicopter short-haul.

Fatal Fall (May 7) Upon report that two climbers on the West Ridge of the Moose's Tooth had not checked in as planned, the park's helicopter pilot and two mountaineering rangers made a reconnaissance flight of the route. Spotters observed tracks leading into a fresh slab avalanche release, as well as multiple pieces of climbing gear found between 30 to 300 feet below the tracks. After an extensive aerial search, high resolution photo analysis, and a short-haul-assisted ground search of the crevasse zone at

the base of the route, the two climbers were not found and are presumed to have died in the fall.

Hypothermia (May 14) A solo climber at 9,200 feet activated the SOS on their satellite device after spending a snowy and windy night in a survival shelter. A mountaineering ranger and patrol volunteer from the 11,000-foot camp descended through the stormy night. Upon reaching the soloist early the following morning, they set up an emergency tent and began warming and feeding the hypothermic patient. Later that day, another ranger and two patrol volunteers ascended from basecamp to take over care. The patient was evacuated from via park helicopter when weather improved two days later.

Snowblindness (May 15) A climber with snowblindness at 10,000 feet initiated an international distress call via satellite phone requesting rescue. NPS rangers established satellite communications with the team, encouraging them to wait out the current storm cycle and then descend to basecamp when conditions allowed. Midway through their descent two days later, the impaired climber was picked up by the NPS helicopter -- already in the range evacuating a crevasse fall patient -- and flown to basecamp.

Crevasse Fall (May 17) Rangers and volunteers from the 11,000-foot camp responded to an un-ropped crevasse fall on Motorcycle Hill. The climber, who had fallen roughly 5 meters and sustained a shoulder injury, was assisted out of the crevasse by their partner and another independent climber. The patient's dislocated shoulder was reduced, and the following day they were evacuated to basecamp via park helicopter.

Climbing Fall (May 19) An un-ropped climber on the 16,200-foot ridge of the West Buttress fell 1,200 feet down to the Peters Glacier. After rangers were notified, a rescue attempt was made the following morning via helicopter, though the flight turned around due to weather. With a ground rescue effort underway by rangers and patrol volunteers, a second aerial attempt was made later that evening, with visual assistance provided by an Air National Guard C-130 crew. This second flight mission was successful in evacuating the severely injured climber from 15,000 feet on the Peters Glacier to Talkeetna, where the patient was transferred to an air ambulance for further care.

Climbing Fall (May 20) A two-member climbing team activated a satellite SOS following a fall on the West Face of Peak 11,300. The team's v-thread anchors failed on descent; one of the climbers fell 100 feet and suffered a mild head injury, while the partner who arrested the fall suffered rope burn injuries and contusions. The team was able to dig out a bivy site in the steep snow couloir and keep warm through the night. The NPS initiated a helicopter short-haul rescue the following day with a ranger harnessed to the end of a 250-foot long line who extracted the climbers to a staging area.

High Altitude Pulmonary Edema (HAPE) (May 25) In the days following a rapid two-day ascent from the 7,200-foot basecamp to the 14,200-foot camp, an independent climber began suffering symptoms of high altitude pulmonary edema. The NPS ranger patrol in camp provided medical assistance, including

oxygen, medication, and treatment in the NPS portable hyperbaric chamber, and the patient was evacuated from the mountain via park helicopter.

High Altitude Pulmonary Edema (HAPE) and High Altitude Cerebral Edema (HACE), with Subsequent Fatality (May 30) NPS rangers at 14,200 feet were notified that a member of an independent climbing team was falling in and out of consciousness two days after a rapid, 1.5 day ascent from the 7,200-foot base camp. The NPS ranger patrol provided advanced life support to the patient throughout the night, including oxygen, medication, treatment in the portable hyperbaric chamber, and manual ventilation via a bag valve mask. The patient did not regain consciousness, and when weather at the 14,200-foot camp became flyable the following morning, the patient was evacuated to Talkeetna via park helicopter and transferred to an air ambulance. Rangers later learned that the patient died at an Anchorage hospital in the days following the evacuation.

Exposure, Frostbite (June 1) A climbing team on descent from high camp activated a satellite SOS below Washburn's Thumb, indicating one of their team members was unable to walk. Weather was too severe for a ground rescue crew to ascend from 14,200-foot camp, so the team was coached by the NPS to self-rescue. The distressed climbers remained in place, meanwhile contacting a team of friends camped at 17,200-feet for help. The following morning, two members from that contacted team descended to assist their friends down to the 14,200-foot camp. The combined teams (9 climbers) were intercepted at the base of the fixed lines by an NPS patrol team ascending from 14,200 feet and escorted down to the medical tent. Three of the nine climbers required medical assistance and evacuation, two for frostbite (including one from the rescue party) and one with signs of HACE/HAPE/AMS. The remaining 6 climbers did not have camping equipment so were provided tents, stoves, and food.

Abdominal Pain (June 5) A climber approached the NPS medical tent at 14,200 feet requesting help for severe abdominal pain. Upon medical assessment and consultation with the NPS sponsoring physician, a decision was made to evacuate the patient, however, the helicopter was unable to land due to weather. Later that day, the patient's pain disappeared, and the climber began to descend on foot. En route to basecamp, however, a ranger patrol on descent diverted to aid the weakened climber, assuming control of his sled and roping in for the descent to basecamp.

Fall (June 6) A skier fell approximately 1,000 feet during a descent of the Rescue Gully, losing both skis and poles. The skier, who self-reported the accident, stated the chief complaint was neck stiffness. Due to the mechanism of injury and the crevassed terrain, rangers and a rescue party responded to the skier's location for a ground evacuation to the 14,200-foot ranger camp. The patient was assessed, treated, and subsequently evacuated via park helicopter.

Frostbite (June 7) A climber who had bivied overnight at 16,000 feet needed assistance from nearby climbers to descend the fixed lines the following day. A ranger patrol met the climber at the base of the

fixed lines and transported the climber in a rescue sled to the 14,200-foot medical tent. The patient was treated for superficial frostbite, and after a full night of sleep, water, and food, the climber was able to descend the mountain on their own accord.

Frostbite (June 7) A climber with frostbitten feet was brought to the NPS medical tent at 14,200 feet by teammates. They reported a long summit push the prior day, and the patient was wearing only single layer boots. After re-warming the feet and providing medication, the patient was evacuated to Talkeetna when weather allowed the following day.

Fall (June 7) A team of two fell while descending the fixed lines. One of the climbers suffered an ankle injury, while the other reported pain in both the knee and ankle. Two passing climbers assisted them down the rest of the fixed lines, where they met a responding NPS ranger patrol who slowly short-roped the team back to camp. The injured climbers were evacuated to Talkeetna.

Fall (June 15) Shortly after midnight, a skier fell from Denali Pass at 18,000 feet while on descent from a long summit bid that began at 14,200 feet. A lead guide camped at 17,200 feet radioed to NPS rangers that he had eyes on the fallen skier, who had come to a rest at roughly the same elevation as high camp. The guide responded with two of his assistant guides, attending to the fallen skier and two partners through the night until conditions allowed for a helicopter evacuation that morning. The patient, who had a dislocated shoulder and frostbite on three fingers, was short-hauled using an unattended rescue basket to the 14,200-foot camp. From there, the injured skier was loaded internally and flown to Talkeetna for transfer to an air ambulance. One of the fallen skier's partners who had helped through the night on the heels of a long summit day, suffered frostbite to the nose, 7 fingers, and all 10 toes. When that teammate arrived in 14,200-foot camp, the frostbite injuries were assessed and a decision was made to evacuate them to Talkeetna as well.

High Altitude Pulmonary Edema (HAPE) (June 15) A client on a guided expedition developed symptoms of HAPE at 14,200 feet. The client was advised by rangers to descend, accompanied by an assistant guide. During their descent, they met up with an ascending NPS ranger patrol. Since the patient's condition had not improved, rangers determined that the individual be flown to basecamp by the park helicopter, which was already in the vicinity evacuating other patients.

Dislocated Shoulder (June 23) A climber dislocated their shoulder while walking down from Motorcycle Hill. A guide passing through the 11,000-foot camp conveyed the teams request for rescue assistance to NPS rangers. Intermittent low cloud cover at the camp delayed a helicopter evacuation until late the following evening.

Stranded Packrafters (July 15) Two backcountry users stranded on a gravel bar on Alder Creek contacted NPS rangers requesting a rescue. The park helicopter flew to the site with one ranger on board,

evacuating the rafters to Talkeetna.

Leg injury (July 25) NPS rangers received a one-way SOS message from a personal locator beacon (PLB) in a remote backcountry unit in the Tokosha Mountains. The park helicopter flew to the site with one ranger on board, and subsequently evacuated two backcountry users, one of whom had an immobilizing leg injury.

Climbing Fall (August 2) A climber took a leader fall on Mount Barille's Cobra Pillar, resulting in a deep leg laceration and a neck injury. Notified by the teammates via a satellite communication device, NPS mountaineering rangers flew to the accident site. The injured climber was short-hauled to a nearby staging area, with a ranger attendant on the end of the short-haul line. At the staging area, the patient was assessed and provided medical care before evacuation to a ground ambulance in Talkeetna. The other two climbers descended without injury.

Anaphylaxis (August 3) A Volunteers-in-Park (VIP) on a backcountry patrol was stung 5 times by bees while travelling through thick brush in the Tokosha Mountains. Two rangers on the patrol first initiated rescue assistance, then assisted the VIP out of the brush. They treated the VIP throughout that evening with epinephrine and other allergy medications in response to hives, swelling, respiratory distress, and altered mental status. After the patient's severe symptoms improved, the team re-located to a more suitable landing zone in the event of an evacuation. Overnight, the VIP's symptoms returned, on and off, although remained non-life threatening. The next day clouds had moved in, preventing an evacuation. The patrol team ultimately flew out to Talkeetna the following day (two days after the initial stings) when the VIP continued to present with intermittent symptoms.

Fatal Aircraft Incident (August 9) NPS mountaineering rangers received a request from the Air National Guard's Rescue Coordination Center (RCC) to help search for an overdue aircraft in the park's southwest preserve. Initial search flights turned around due to bad weather, but the following day a military aircraft spotted the aircraft wreckage at the bottom of a steep ravine off the Yentna River. The crash was determined unsurvivable. NPS mountaineering rangers and National Transportation Safety Board (NTSB) investigators flew to the site multiple times in subsequent days. Ultimately it was determined that a recovery of the deceased pilot and passenger would put rescue personnel at excessive risk due to the extreme terrain and limited rotor clearance.

2023 Medical Summary

Denali mountaineering rangers and patrol volunteers treated a total of 33 patients during the 2023 climbing season. Seven of these patients did not meet our life, limb or eyesight-threatened threshold and were treated and released for self-evacuation. Patients not meeting this treatment guideline are advised to self-treat and evacuate as needed. The following list provides a breakdown of the diagnoses from this past

rescue season:

- Traumatic Injury – 11 cases (includes 1 facial laceration, 3 shoulder injuries, 1 traumatic brain injury, 1 fractured ribs, 1 neck injury, and 4 patients with various musculoskeletal injuries)
- Frostbite – 11 cases
- Medical – 6 cases (includes 2 hypothermia, 1 diverticulitis, 1 spontaneous pneumothorax, 1 possible case of anxiety, and 1 case of anaphylaxis)
- High Altitude Cerebral Edema – 3 cases
- High Altitude Pulmonary Edema – 3 cases

**Some patients had multiple diagnoses resulting in a higher number of diagnoses than the total number of patients.*

Of the patients treated, 24 were independent climbers or park visitors. Six were guides or their clients and two were park service volunteers. The patients treated by our teams exhibited a total of 22 traumatic injuries (including 11 cases of frostbite) and 12 medical complaints. Twenty-three of these patients were treated at, or rangers responded from, 14,200-foot camp on the West Buttress route, 3 were treated at (or rangers responded from) the 11,200-foot camp, and two from the West Buttress occurred at other elevations between camps. We responded to two patients in other areas of the Alaska Range. Twenty-one of these patients required helicopter evacuation from Denali National Park. Three patients were evacuated by NPS Rangers on the ground, and nine patients self-evacuated after receiving treatment.

There were five deaths in the Alaska Range this season, with one additional fatality occurring post-evacuation. One fatality occurred when a solo skier was caught in an avalanche and buried just south of the Denali Park Road. Two fatalities occurred because of a fall from the ridge of the Mooses Tooth peak in the Ruth Gorge. The final two fatalities were on board a Piper PA-18 Super Cub that crashed into a ravine in the Yentna River drainage of the Southwest Preserve. Four of the fatalities, including the two Moose's Tooth climbers and the individuals on the Super Cub, were not recovered. In addition to the fatalities listed above, a climber treated at the 14,200-foot camp for severe altitude illness was evacuated, but subsequently died of their illness while in hospital.

The patient care reports from this past climbing season describe ailments commonly associated with mountaineering in the Alaska Range. Many of these medical illnesses and traumatic injuries are preventable with prudent decision-making and a reasonable ascent profile during climbing expeditions. Additional information regarding the prevention, recognition, and treatment of common mountain medicine maladies can be found online in the Denali mountaineering handbook:<https://www.nps.gov/dena/planyourvisit/part2medicalissues.htm> (<https://www.nps.gov/dena/planyourvisit/part2medicalissues.htm>)