

Since you can't dial for help in the mountains, some far-too-busy rescue rangers have some advice: Don't leave home without your brain.

"No one ever thinks anything will happen." The comment belongs to Scott Birkenfield, a climbing ranger in the Jenny Lake area of Grand Teton National Park, Wyoming. His voice sounds tired and scratchy as he recounts the events of the day. Last evening, a hiker slipped in a high talus field and fell 30 feet. His partner went for help. Sometime before midnight Birkenfield got the call, and as in 1,000 cases before, he methodically asked the questions. Who? What? Where? When? Is he allergic to anything?

What was his mental condition when you left? Was he bleeding? Is he warm? Just after midnight, Birkenfield woke up Climbing Ranger Jim Springer. In a matter of minutes, Springer was heading up the trail prepared to save a man's life. In just under two hours, after hiking seven or so miles in the dark and gaining more than 2,000 feet elevation while carrying a heavy pack, Springer found the hiker huddled next to a fire. Springer made a thorough check for injuries--one broken ankle, the other badly sprained.

He splinted the man's ankles, elevated his legs, reported back to Birkenfield with a walkie-talkie, then waited for sunrise. A helicopter rescue was planned for morning. "No mountain sense whatsoever," says Springer, exhausted. He's now back on the porch of the Rescue Cache, a small cabin from which rescues in Grand Teton National Park are mounted. He's still in his flight suit. The sun is up, the chopper is gone, and another hapless hiker is on his way to the hospital. "So many people just don't respect the mountains. They don't know that they can die out here." He stretches his long, weary frame into the warmth of the sun. "Personally, I think the problem is we've lost the apprenticeship period."

Birkenfield is inside the cabin reshelving the rescue equipment--litter, box splint, bandages, carabiners--but he can hear us talking. "I agree completely," he shouts. Springer says that once upon a time people who climbed or traveled in the backcountry learned their craft from wilderness veterans. It was understood that to move through the mountains safely required special skills, and that acquiring those skills took years of rigorous training. "Other people made mistakes and somehow survived and you learned from them. You didn't need to make all the mistakes yourself," he explains. "Now people go blasting into the mountains lacking not only the most basic skills, but also the right gear. And if they do have the gear, seems like about half the time they don't have a clue how to use it." Springer would be incredulous if he didn't see it so often. He and the rest of the Teton climbing rangers risk their lives each summer rescuing people who, in most cases, have made mistakes the rangers attribute to arrogance and ignorance. "Don't go out, without. That's the rule," advises Springer. "That goes for both equipment and good judgment. I see hikers out for a day and they don't even have a pack. Half of those who do are carrying a book bag or a fanny pack. That's junk. You want to go for a hike in the mountains? You carry a real pack and enough inside so you don't die if you have to spend the night out." Birkenfield steps out onto the porch. Mount Teewinot, like some massive, subterranean animal,

bursts through the skin of the prairie directly in front of the cabin. Hands in pockets, he nods. "My personal thing is a hat. A big thick hat that sucks down over the back of my neck and under my chin."

"Hat, heavy fleece jacket, waterproof shell jacket, long johns, lightweight mittens, water bottle, lighter or waterproof matches. That's the minimum to carry," adds Springer. "All of which is of course practically useless if you lack good judgment." Birkenfield grins. Springer smiles sorrowfully. They both stare up at Teewinot, which looms over us, portentous and foreboding. The next morning my climbing partner Dino and I are hammering up a path on Mount Teewinot in dawn's purple half-light, going through all the "what-ifs." "What if it snows?" asks Dino. "It's supposed to," I say. "We can bail into the east face gully." "What if the rockfall is bad?" he presses on. "Same thing." "What if it's too tough?" "According to the topo we should be able to back off onto a number of horizontal ledges." "You brought water?" he asks. "Two quarts. You got food?" "Plenty. Mittens?" "One for each hand," I tell him. "Headlamp?" "Yup. You?" We do this all the way to the base of the climb.

This process, the verbal evaluation of potential pitfalls and the subsequent analysis of appropriate responses, is standard operating procedure for mountaineers. As we uncoil the rope, it begins to snow in small hard pellets--the kind that bounce off the rocks as if they were alive. We decide to try two pitches, one apiece. If it gets worse, we'll turn tail, race out, and find ourselves a warm cowboy bar. In snow and sleet, two pitches are done, then a mercurial sun suddenly shoves aside the clouds. We keep moving, swiftly. It's a long scramble. Sun and then snow and then sun again. We break for a three-minute lunch of blueberry bagels, during which I tell Dino about my cautionary conversation with the climbing rangers. After a series of wicked pitches and ripping at the rock, we're not-so-suddenly on the summit. A party is leaving as we arrive.

The sky is black and ugly. The storm that threw a fake punch this morning has returned for a real fight. We'll eat a handful of M&Ms and snap a few hero photos, then waste no time heading down the mountain. The storm hits when we're 300 feet below the summit, with 5,000 more to go before we reach the trailhead. The first whirling, snowy punch melts on the rocks, then freezes. The second punch is a stiff uppercut. It slams up the wall into our faces and dumps an inch of powder on the iced rocks. In mere minutes the mountain has changed from familiar and traversable to a dark, Gothic, one-misstep-means-death sheer face. We catch up to the party that left the summit before us. They are stranded. Instantly, like the moment a car spins out of control on ice, it's clear that the situation is serious. A woman from France, a man from Switzerland and three Americans are soaked and shivering. All but one in the party are in jeans. Two are in sneakers. It's almost dark and still snowing, and the route they hiked up when the mendacious mountain was benign is now slick as glass and impossible to descend. They are clinging to sloping rocks with thousands of feet below their souls. Only one of them carries a backpack, and he's not the leader.

The man who guided them is wearing jeans, basketball sneakers, and a windbreaker. None have mittens. They have rental ice axes but don't know how to use them. No rope, no climbing gear, no extra clothes. One of the Americans is wandering aimlessly along the slippery ledge mumbling to himself. Dino immediately takes charge. After setting up the ropes, we put our harnesses on two of the hikers. Dino hastily teaches them how to rappel, repeating everything in French. The French woman's hands are wet and stiff from the cold. I give her one of my gloves and she pulls her sleeve over her other hand. We rappel down, dropping through the sky, skidding on the rocks, dangling and jerking on the ropes in the lambent, arbitrary storm. On the next ledge we set up another anchor. This time, Dino decides to lower two people at a time the full length of our ropes, 400 feet--it's faster and safer. We are racing against nightfall, and it's still snowing intensely. We back four people down into space before the ropes get stuck. Without a harness, Dino quickly fashions a rappel belt from a lump of slings, slides down the rope, and dislodges the frozen knot.

With all five lowered, Dino deftly scouts the route below and leads them off the face, the entire time reassuring the group that everything will be fine. When I catch up, he has just choreographed all five across a series of snow slopes onto a genuine trail. By now, it is dark. Back at camp, they want to pay us, but we refuse. We leave them to contemplate their multiplicity of errors and timely good fortune. "They made all the classic mistakes," I point out on the hike back to the car. "Wrong clothes, no gear, bad judgment," says Dino. "YMIS," I say. "What?" I explain that the acronym stands for a condition Springer explained to me. It's endemic in the United States, and comes from too many Rambo movies and not enough cold bivouacs. Dino starts guessing. "Young. Young men's illness. Young men's. . . ." "Young Male's Immortality Syndrome. The term comes from emergency-room physicians, although the rangers said they see it all the time. It refers to gung-ho guys with no fear of dying, males who make good soldiers but could come down from the mountains in body bags." The lights from our headlamps dance on the path ahead of us.

The stars are out, the storm is gone and Mount Teewinot, like all great mountains, remains unvanquished. Dino's voice, quiet and grave, drifts back to me. "They could have died." "No. They would have died," I tell him. "What is good judgment?" Mark Magnuson, the Jenny Lake subdistrict ranger, leans back in his chair, looks out his cabin window and ponders my question. He has a smooth face that hides a lifetime's worth of grueling mountain experiences. "Well, above all, it's knowing when to turn around," he tells me. "The people who are most afraid to quit are the people who get hurt. Everyone's into goal-setting these days. They wake up in the morning and say, --I'm going to do this.' Problem is, it's not simple in the mountains. It's not just up to you. You have to factor in weather, route finding, altitude. You have to be constantly evaluating." Birkenfield, listening from his office in the next room, speaks over the crackle of the wood-burning stove, "The goal for hikers should just be getting out there, not making it to a summit or to some lake 100 miles down the trail. Just being up in the mountains should be enough." "Second, a man's got to know his limitations," continues Magnuson. "Most

people spend so little time in the mountains they have no idea whether they can comfortably hike five or 10 or 15 miles in a day. You have to know your body and recognize when you should just hang around camp and take it easy." "The same thing goes for your party," adds Birkenfield, still shuffling through the mountain of papers on his desk. "You are only as strong as your weakest link."

Magnuson gives a sly smile. He and Birkenfield have done so many rescues that these maxims are embedded in them like slivers of shrapnel. "There's one last item," says Magnuson as he spins in his chair. "Good judgment is a function of responsibility. This can mean two things. If you have the skill and experience, don't be afraid to assume the leadership role and make decisions for your group, because you could save their lives. On the other hand, if your skills are weak, you have to have the courage and intelligence to say, 'This is too much for me.'" Birkenfield ambles into the doorway of Magnuson's office. They're looking at each other. I can sense that they're both thinking the same thing. "Responsibility really is the bottom line," chimes Birkenfield. "People should be responsible for themselves." Magnuson nods. "You'd be amazed how many folks believe it's the park's responsibility to get them out of a mess. They know we have a rescue service. They know we can get a helicopter. Under the current system, taxpayers are, in effect, subsidizing the rescue of inexperienced people who take undue risks." Birkenfield adds, "The burden of responsibility should always be on the hiker. Every rescue costs thousands of dollars. Those folks you helped out yesterday are an example. That wasn't a freak snowstorm. It was forecasted, and came in just like it was supposed to." Magnuson suddenly looks tired. "Sometimes . . . sometimes it seems as if people believe the park can compensate for their own bad judgment." Birkenfield's face crinkles. "There should be a sign at every trailhead: 'Don't leave home without your brain.'" Magnuson and Birkenfield go silent in their cramped offices below the magnificent, deceptively mortal Grand Tetons. Birkenfield peers out the window. His eyes are steady. "I had to do a study of all the backcountry accidents in Teton National Park recently.

A total of 700 injuries and deaths. That's a lot of hurt people. You know what I found? Just one, just one, wasn't due to pilot error. All the others--whether it was bad judgment or bad planning or lack of gear or the wrong gear or not knowing how to use the gear or whatever--all 699 were a direct result of pilot error." Resources High Altitude: Illness and Wellness, by Charles Houston. ICS Books, P.O. Box 10767, Merrillville, IN 46411-0767; (800) 541-7323; \$7. Hypothermia, Frostbite and Other Cold Injuries, by Wilkerson, Bangs and Hayward. The Mountaineers, 1011 S.W. Klickitat Way, Suite 107, Seattle, WA 98134; (800) 553-4453; \$12. Medicine for Mountaineering, by James A. Wilkerson. The Mountaineers, see address above; \$17. Mountaineering First Aid, by Lentz, MacDonald and Carline. The Mountaineers, see address above; \$9. Wilderness Medicine, by William Forgey, ICS Books, see address above; \$10. Guide Services American Alpine Institute, 1515 12th St., Bellingham, WA 98225; (206) 671-1505. Appalachian Mountain Club, P.O. Box 298, Gorham, NH 02381; (603) 466-2721. Colorado Mountain School, P.O. Box 2062, 351 E. Moraine, Estes Park, CO 80517; (303) 586-

5758. Exum Mountain Guides, Grand Teton National Park, P.O. Box 56, Moose, WY 83012; (307) 733-2297. International Mountain Climbing School, Main Street, Rt. 16, North Conway, NH 03860; (603) 356-7064. North Woods Ways, Garrett and Alexandra Conover, R.R. 2, Box 159 A, Gilford, ME 04443; (207) 997-3723. **IT'S MORE FUN WHEN YOU'RE PREPARED FOR THE WORST** An equipment checklist for safe hiking in the mountains. You want to determine what to carry on a dayhike under sunny skies in the mountains? Here's the one way to decide: If it were to suddenly start raining or sleeting or snowing or blowing or billowing or blizzarding (as it often does), and you got lost, could you spend the night out with just what's in your pack? With that in mind, what follows is an annotated list for hiking in the alpine backcountry. It may seem like a lot to carry in perfect weather, but in less than perfect conditions it can save your life. Day pack: 2,000 to 3,000 cubic inches, durable, with several pockets. Must have waistbelt for comfort, and foam in the back for use as ground insulation during an unplanned bivouac. Map and compass: Know how to use them or stick to well-traveled trails. Headlamp: With full set of spare batteries and one spare bulb.

Check batteries and bulb before leaving home. Sunglasses and sunscreen: 100 percent UV protection on the glasses, 25 SPF on the cream. Use both, even when it's cloudy. Pocket Knife: Should have at least one cutting blade, can opener, scissors. Waterproof matches/lighter: Carry in plastic waterproof containers. Candle: Short and stubby so it stands easily on its own. Good for lighting a fire. Water Bottle: 1 liter minimum size. Iodine: Tablets or liquid. First-aid kit: Small, but should contain: triangular bandage, sterile gauze pad, moleskin, alcohol pads, elastic bandage, aspirin, adhesive bandages, butterfly bandages, athletic tape, Lomotil, antibiotic, antibiotic cream. Food: One to two pounds of carbohydrate-rich calories, such as candy bars, energy bars, crackers, and dried fruit. TP: Carry in a sealable bag; pack out the paper and bury the poop. Hat: The best is the "bomber" variety with fleece lining and a waterproof/ breathable shell. Mittens: Lightweight, synthetic. Fleece jacket: Heavy-weight, windproof fleece is excellent. Down is useless if it gets wet. Should have a high collar and several pockets. Waterproof shell, top and bottom: Completely waterproof is essential. Must be big enough to wear over fleece jacket and pants. Pull these on before you're sopping and shivering. And for those who don't already know, cotton can kill you if it gets wet. It takes forever to dry, and the cold, damp material literally sucks away your body's warmth. That's why jeans are so dangerous in the mountains. Long johns: Synthetic, lightweight top and bottom. Mirror: For signaling. Practice at home with a friend so you know how to use it. Bivy sack: This is a controversial piece of gear for dayhiking, but as guide Peter Lev says, "The one sure way of surviving the night is to get out of the weather. With a bivy, you can do that." For 32 years, Lev has carried a large, lightweight two-person bivouac sack. **DON'T BECOME A STATISTIC** Learning basic backcountry skills will keep you out of harm's way. Whether you're heading into the high country for a dayhike or a week-long adventure, the mountains demand more than just standard camping knowledge. Probably the most fundamental of these prerequisites is a high degree of physical fitness. "Proper pretrip physical conditioning cannot be stressed too highly," says William Forgey, M.D., in his book *Wilderness Medicine*. "While trying to survive exposure, a

major factor is your ability to generate heat, which is directly related to your ability to produce work. This is achieved through physical conditioning . . . not how much food one stuffs into one's face."

A basic knowledge of first aid is also essential. You should be able to properly manage bleeding, open wounds, fractures, altitude sickness, excessive heat (heatstroke, heat exhaustion), excessive cold (hypothermia, frostbite) dehydration and shock. Most universities, hospitals, and even some corporations regularly offer first-aid certification courses. Sign up. In Grand Teton National Park, the No. 1 cause of backcountry accidents is slipping on snow. Just an ordinary, often small fall on a patch of snow on the trail can cause a sprained wrist, twisted knee, or broken leg. To avoid such a calamity, take a snow course. There are numerous guide services throughout the country that teach basic snow travel. In any class, you should learn how to walk on snow with and without an ice ax and crampons. Specific techniques should include kicking steps, self-arrest, and French technique with crampons. "People often come to the Jenny Lake ranger station and ask whether they need an ice ax to travel some trail they've heard is covered with snow," says Ranger Jim Springer. "If they come in with their own beat-up ax, chances are they won't even need it because they already know how to travel on snow. If they come in without one, and are planning to rent one in town, chances are it wouldn't do them any good anyway, and they should simply stay off the trail."

Even with all the appropriate skills, prevention is still the best form of wilderness medicine. The key to an injury in the backcountry is not to have one