

If you need your belay device and it's tied up in the system, first anchor the belay line with a prusik in front of the device, then tie the rope off behind it, allowing enough slack to remove the device. If your rappel is stopped by kinks in the rope, tie off the descender or tie in short, then untie your end of the rope and shake out the twists. Know how to use several rappel rigs—Munter, carabiner brake, etc. Know the uses and limitations of prusiks when rappelling and ascending the line, and how to tie in short. Finally, know how to assist your partner to the summit or to lower her to the base—if the injury and terrain allow. These skills may get you out of trouble in a more remote and more serious environment. (Source: John Dill, NPS Ranger, Yosemite National Park.)

FALL ON ROCK—INAPPROPRIATE DESCENT TECHNIQUE, OFF ROUTE, EXCEEDING ABILITIES

California, Yosemite National Park, Tenaya Canyon

On the morning of June 20, I, Graham (18), set out from Tenaya Lake for a solo cross-country day hike to Yosemite Valley via Tenaya Canyon. I had been climbing in the park for about a week on this, my first visit, and had heard about the route from Park Service friends. The terrain is mostly second/third class, along Tenaya Creek in the bottom of the canyon. A couple of rappels are necessary for most parties, but an acquaintance in the park, familiar with the canyon, described his route for me, saying that I might have no need for a rope if I stayed to the right of the creek. I did bring a rope, but no hardware or helmet—I wanted to keep my pack light, and I'd heard that all the rappels were on slabs, so I figured I could hand-over-hand down the rope on anything I might unintentionally encounter. I also brought a few typical day-hiking items and threw in my cell phone for good measure.

After a few hours of hiking down the canyon on fairly straightforward terrain, the creek abruptly dropped over a waterfall into a narrow gorge 50-75 feet deep. I'd been told about a gorge, but I had no idea it would be so difficult. A steep rappel would get me to the creek bed below; however, I couldn't see far enough downstream to determine if there was a way out, so I decided to stay out of the gorge and continue looking for the third-class route I'd been told I might find.

I worked my way up the side of the canyon on river right and continued downstream, bushwhacking through manzanita, several hundred feet above the creek. Then the terrain led me down slabs into a small drainage that, like the main creek had earlier, dropped off the edge of a vertical cliff. From my vantage point, it was clear that if I could get to the bottom of the cliff, a scramble would take me back to Tenaya Creek, and a hike of a couple miles would get me to the Valley. I spent an hour or two looking around for an alternative way down, but descending the cliff seemed to be my best option.

I doubled my rope around a tree near the edge, grabbed hold of it, and looked over. The rope clearly didn't reach the bottom, but it did just reach a slab 75 feet below me that angled down to a shallow, rocky pool of water

on a broad ledge. I judged that I could hand-over-hand down to the end of the rope and onto the slab, then climb down to the ledge. Once on the ledge, the rest would be easy.

I went down the rope with hands and feet, nothing else securing me. I had done hand-over-hand descents on large drops many times before and, although this one was steeper, even overhanging, I felt completely comfortable going over the edge. I was almost to the slab when I noticed the nature of the rope changing. The water dripping off the edge above was soaking the rope. Instead of one hand holding fast while I moved the other, it would slip an inch. I started to move faster, trying to keep pace with the slippage. When I was five or ten feet from the end of the rope and only five feet from the slab, I completely lost my grip and slid down and off the rope onto the slab. I tumbled down the slab, bouncing hard two or three times, and into the pool. I estimated the fall at about 40 feet, but my rescuers later told me it was closer to 80 feet.

I remember opening my eyes after I landed and thinking, "Holy shit, I fell! Holy shit, I'm OK!" I touched my head and saw that I was bleeding. That was all I felt initially, but when I stood up to walk away I was hit with excruciating pain in my right leg. I looked down and saw that it was pointing in the wrong direction, so I crawled out of the water about 20 feet to a dry section and conceded defeat.

My cell phone had miraculously survived the fall and the pool of water, so I tried calling 911 and I got a reply. I was only able to give the rangers a rough idea of where I was, but they spotted me from the park helicopter pretty quickly. Then they managed to find a landing spot several hundred yards away in the canyon bottom and two medics scrambled up to my ledge. After they worked on me a while, a second helicopter (California Highway Patrol) hoisted me and flew me to the Valley, where I was transferred to an air ambulance for the trip to a hospital in Modesto. The whole top of my right femur was broken apart, my pelvis was cracked, and I had an L4 compression fracture. At this point, nine months later, I have been cleared to do whatever activities I choose, but I'll probably lay off the contact sports a little longer.

Analysis

This was the most traumatic thing that has ever occurred to me, mostly because I did it to myself. I still have dreams about it, and the accident is never far from my mind. I have never been as embarrassed as when I had to call for help and put people in danger for my sake. I almost didn't call for that reason. I can hardly be classed as a beginner. I've had the benefit of 18 years of outdoor education from my family, have been climbing my whole life, and have had extensive canyoneering experience elsewhere. It sounds crazy even to me, now, but I was really comfortable going down hand-over-hand. It was standard procedure back home, but on a cliff this steep and this high it was a dumb thing to do. I could easily have turned around and hiked back to Tenaya Lake, even if I had had to spend the night en route. But the greatest lesson learned was humility. I needed a big slap in the face

because I was getting way too cocky with my climbing. I definitely got a BIG slap in the face.

Obviously once you are out there—on trail or off—you have to use your own judgment every step of the way. The advice from Graham's friends may have been correct, but it was insufficiently detailed to keep him on track in such rough country, and he had actually wandered off route.

A map will sometimes help, but it, too, will lack the necessary resolution. Also, if you are going to put a rope in your pack, take the gear to go down it safely. Add to this some prusiks and lightweight foot loops for ascending your line again if you find yourself at a dead end. Graham would hardly have noticed the weight of this gear in his daypack, and it would have been far cheaper than all those helicopters and hospital bills. Tenaya Canyon has been the scene of many strandings, injuries, and fatalities, all involving parties without the skills and/or gear for the terrain. (Source: Graham and John Dill, NPS Ranger, Yosemite National Park)

(Editor's Note: While not a climbing accident, this is a good example of a hiking situation that turned into a climbing problem.)

FALL ON ROCK, RAPPEL ANCHOR FAILED

California, Yosemite National Park, Cathedral Peak

On July 2, Aaron (28), Mark (48), Chad (28), and Brian (49) started up the West Pillar of Eichorn Pinnacle (five pitches, 5.9 or 5.10b). Brian was unable to manage the first pitch, so he chose to wait at the base while Aaron, Mark, and Chad finished the route. After climbing the first pitch and starting the others decided that rather than keeping Brian waiting, they would rappel off, join Brian, and go cragging elsewhere.

Aaron stopped halfway up the second pitch, established an anchor, and brought up Mark and Chad. The anchor was built from his own gear, so he was reluctant to leave it behind when they descended. He spotted a cluster of slings about 25 feet further up the pitch and climbed up to a small ledge just below them, for a look. He found three slings sticking out of a finger-crack, with a screw link and a carabiner attached to them. They had almost certainly been set up and used for rappels, and from what he could see, they were in good condition. He spread the slings apart and peered into the crack. The slings were wedged so deep that he had difficulty seeing the exact layout, but they appeared to be tied around a constriction where the two sides of the crack seemed to come together. He built a temporary anchor of his own a couple of feet below the slings and clipped himself to it. Backed up by that anchor, he rigged his ropes through the link and the carabiner on the slings and bounce-tested the slings as though he were on rappel. They seemed solid, so he decided to use them to anchor the party's first rappel. He pulled his temporary anchor and, with the slings as his rappel anchor, rappelled 25 feet to rejoin Mark and Chad at their belay.

From that point they would need to make two rappels to the ground. The first would be anchored through the slings above, so Aaron left the ropes in place. Mark was eager to rappel first and set up the next station. He got on