



AAC Publications

Ground Fall – Cams Pulled Out

California, South Lake Tahoe, Pie Shop

My wife and I were climbing at Pie Shop, a granite crag in South Lake Tahoe where we had been multiple times. I was leading the first pitch of True Grip, a right-angling 5.10b finger crack. While I am an experienced trad leader and have comfortably climbed many routes at this grade, my finger-crack skills were a known weakness. Nonetheless, the protection potential was better on this climb than on two 5.10 climbs I had just top-roped, and I assessed it as sufficiently safe to lead.

I fell off while attempting the opening moves, and my wife (belayer) spotted my fall. I quickly got back on the climb and worked my way up to the first solid finger lock and put in a blue TCU; I didn't use a quickdraw since I was close to the ground. I moved up the climb, ultimately placing three more pieces: blue and gray TCUs without draws, then a gray TCU with an alpine draw. (Editor's note: The gray 00 Metolius TCU is the second-smallest in the TCU line. The blue number 1 TCU is designed for half-inch to two-thirds-inch cracks.) I inspected and pull-tested all the placements and believed they were sound. However, I was shaky on the lead, unable to find good rest positions and not confident in my feet.

As I moved above my last piece of protection, I saw a decent foothold on my left, one move higher, so I stepped up and tried to get to a rest position. However, I was unable to secure good finger locks and I believe my foot slipped. I was about a body length above my last piece of protection (the gray TCU) and approximately 25 feet up the wall.

As I fell, three pieces of protection pulled (the first, third, and fourth) and I hit the ground. The majority of the blow in striking the ground was absorbed on the left side of my lower and middle back, which impacted a manzanita stump. The wind was knocked out of me. After my breathing returned to normal, my wife and I did a high-level injury assessment: My back and rib cage hurt where I hit the stump but were not exceedingly painful; my left wrist was sore; and I had a handful of small abrasions. After determining that I did not appear to have any head or spine injuries or puncture wounds, my wife helped me up and packed our gear, and we slowly hiked out to the car and drove to the ER.

I was diagnosed with four transverse process fractures of the vertebrae, two broken ribs, and a minor collapse of the left lung. A month later, an MRI revealed that I also had suffered a broken left wrist. Fortunately, all injuries have fully healed and I have returned to climbing. And I am working on my finger-crack technique.

ANALYSIS

The fall happened very quickly, but the gear that pulled may have absorbed some of the energy of the fall, or else I believe that I would have been more seriously injured. The top TCU was substantially deformed, and the metal lobes of each of the TCUs that pulled showed significant shearing where they had been in contact with the rock. There were no issues with the rope or belay. Overall, the force of the fall was just too great for the size and quantity of protection. With smaller gear, there is much less margin for error. Just slight walking of a small cam can greatly reduce the force it may hold. My key takeaway is to place protection more often when using small gear, doubling up on the really small pro and/or adding big gear soon afterward, if possible. Finally, knowing that finger-crack technique was a weakness, I should have approached this route as a project versus an onsight. (Source: Tim

Maly.)

Images

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