stretchy climbing rope to keep the forces low. Nylon webbing (e.g., Chilton's daisy) is too stiff, and spectra is even worse. In either case you may break yourself or the daisy or

rip out the piece.

Often you don't need to clip in the daisy in the first place; it only serves as a keeper for the etriers, but they are already indirectly clipped to the rope. If you do clip the daisy, clip the rope through the piece as soon as your harness is level with it, and disconnect the daisy well before it will interfere with the rope's stretch if you fall—usually before testing the next piece. (Don't forget to allow for slack in the rope.) Some climbers leave the daisy clipped in but rig a Screamer in series with it as a shock absorber. If you do so, make sure the Screamer is designed for the job.

Chilton's injury was relatively minor but could have been fatal. The spleen lies directly behind the lower left ribs; had it been ruptured by the blow or later by the fractured end of the rib, he could have bled to death rapidly. (See ANAM 95, Oliver, El Capitan.) (Source: Martin Ziebell and John Dill, NPS Rangers, Yosemite National Park)

FALL ON ROCK, PROTECTION PULLED OUT, NO HARDHAT

California, Yosemite Valley, Middle Cathedral Rock

On June 16, around 1330, Tyler Gregory (18) started up Pee Pee Pillar, a one-pitch, 5.10a thin crack, belayed by Casey Hyer (19). He scrambled 10 feet up to a ledge, climbed another foot or two, then placed a TCU at arms reach and continued up. At the crux, with the TCU at his feet, he fell off.

"The crack stops and the route goes over a bulge and opens up into a dihedral. I got to the top of the crack and thought there were some holds above that I couldn't see. I tried reaching for them but didn't find anything and that's what initiated the fall."

The TCU pulled out, and Gregory flipped over when his feet struck the ledge on the way down. He landed on the ground on his left shoulder blade and the side of his head after falling 20-30 ft.

Gregory was unconscious for about two minutes; he was convulsing and did not respond to Hyer's calls. Other climbers came over to stand by with Gregory, so Hyer ran to

his vehicle and drove to Yosemite Village for help.

The SAR team and the AMR ambulance crew responded immediately. When they got there, Gregory was responsive but complaining of back pain. They gave him oxygen, immobilized him in a vacuum body splint, and carried him 200 yards to the ambulance. About an hour after the accident the AirMed helicopter met them at El Capitan Meadow and flew Gregory to Doctors Medical Center in Modesto.

Analysis

"I had a skull fracture. I was not wearing a helmet on the climb and the doctors said I was really lucky. I was in intensive care for three days and in the step-down unit for another two, but they didn't have to operate or do anything really major. I also had double vision for two or three months and burst my left ear drum. My hearing came back a little bit but the loss is pretty permanent. But I'm climbing again.

"Before the accident I'd been climbing a total of two years and leading traditional routes for about a year, three or four times a week. It was the first climb of the day, hot weather, I felt a little lazy, and that climb is 5.10a, probably at my leading limit.

"So I really didn't feel like doing that climb right then, and I said to Casey, 'It's your turn,' and he said, 'Oh, you'll do it, you'll be fine.' Casey was older than I was and solid on 5.10 and I looked up to him, so there was a lot of pressure on me to not come down

from stuff—I didn't want him to think I was a weeny, which is basically stupid.

I was at the crux thinking, 'I don't want to do this.' But I just gritted my teeth and went for it. It wasn't Casey's fault, but the message is don't let your partner talk you into anything. I tell other partners, 'If you're uncomfortable and you feel like you want to come down, you can come down.'"

The TCU had seemed like a good one, at the time, and Hyer thought that Gregory might have accidently pulled it out by grabbing it as he fell. But that would be difficult to do if he came off with the TCU at his feet. Gregory is competent at placing protection and has fallen on pro quite a bit but, in retrospect, he thinks, the TCU probably failed simply because it was a marginal placement.

That underscores the main message—protection. Regardless of psychology or other factors, Gregory was leading at his limit with one piece protecting him from a serious fall. He places a lot more pro now. (Also see Dular, page 39.) (Source: Tyler Gregory and John Dill, NPS Ranger, Yosemite National Park.)

INADEQUATE WATER, FATIGUE, LOSS OF GEAR, UNABLE TO CONTINUE CLIMBING

California, Yosemite Valley, El Capitan

On July 3, Japanese climber Hideki Inaba (33) began a solo climb of Cosmos (VI 5.9 A4). He had chosen it because he thought it was a beautiful line, a bit harder than he'd climbed to date, and he wanted to climb alone with little chance of meeting another party. (Cosmos gets few ascents.)

The climb is 28 pitches long via the direct finish; an easier but longer option traverses left on Thanksgiving Ledge from the top of pitch 22 to the West Buttress route. Inaba had not decided which way he would go, but he figured he would average 2.5-3 pitches per day. That totaled nine days, not counting four pitches he had fixed. He packed a typical assortment of wall food and 20 liters of water, allowing him two liters per day with two liters extra.

On the 3rd, Inaba climbed his fixed lines and managed one more pitch. On the 4th, he climbed pitch 6 and was fixing the first half of pitch 7 when he saw his portaledge, which had been blowing around in high winds, break loose from its fly and sail into the woods. The twistlock carabiner anchoring the ledge had apparently unclipped itself. He bivouacked back at pitch 5, in slings.

On the 5th he made it through half of pitch 8 (the pendulum was difficult and time-consuming) and slept at pitch 7. On the 6th he bivouacked at the top of pitch 10. This was the first day he had managed over two pitches.

He had hoped fixed gear would speed him along, but he found very little; also the route was brushy (not surprising, given the low traffic), and more awkward than he had expected. Furthermore he was drinking 2.5 liters per day, 25% more than he'd allowed for, so he decided to limit himself to one liter per day. He would climb from 0600 to noon, when the sun first struck the route, and hide in the shade of his fly during the afternoon. Uncomfortable in slings, he was sleeping only an hour each night.

On the 7th, he reached the top of pitch 12 and bivouacked there without fixing. That day he lost his only topo. This worried him because he didn't have the route memorized. He managed two pitches per day on the 8th, 9th, and 10th, taking him to the top of pitch 18. He'd been on the wall eight of his planned nine days and was far behind schedule. Thanksgiving Ledge, where he might be able to ditch some of his gear and take the easier finish, was still four pitches away. Although he had considered rappelling and felt he could