

x-rays revealed four fractures in the foot along with the broken tibia and fibula. Before he was wheeled into surgery he was warned that amputation was a possibility. However, surgeons were able to save the leg by installing four plates during the five-and-a-half hour operation.

Analysis

G.S. had been climbing for six years and was an experienced leader in mid-level routes. He says he had been pushing it that day as he was not in top form, but did not feel he had been reckless. He says he never imagined how quickly the forces build up in a pendulum type of fall. He compared the impact to that of jumping off a three-story building to a concrete sidewalk.

There is a tree growing out of the bulge, but the route description in the guidebook admonishes using it for the sake of climbing style—climbers may be wise to ignore this. Had G.S. slung the tree for protection he could have reduced his fall to a meter or two. G.S. was wearing silk long underwear and it kept dirt from entering the ugly wounds and open bones and may have saved his leg from amputation. Interviewed for this report, G.S. asked that it be impressed upon readers the long-lasting consequences of a simple fall. Doctors originally indicated he would be active again in four to six months. However, the leg fractures reopened seven months later and further surgery was required, delaying G.S.'s recovery to an estimated two years in total.

G.S. also points out that the rescue operation took over three hours to get him to a hospital that is only ten minutes away. Any efforts that other climbers can make to get an injured climber to the cliff top, provided they don't endanger the injured climber, could cut hours off the rescue time. (Source: David Henderson)

FALL ON ICE, HARNESS CAME OFF—NOT BUCKLED CORRECTLY AND NOT CLIPPED IN TO LEG YOKES

Quebec, Gatineau Park, Cabin Creek Falls

On January 15, R.P. (48) began to climb Cabin Creek Falls, a water ice Grade 2 or 3 climb, depending on the line taken. He was belayed on top-rope by M.B. Both climbers had previous ice climbing experience. The rope was tied with a figure eight knot loop with a locking carabiner attached to it for the climber to clip into his/her harness. The climbers exchanged the standard information to indicate they were both ready and R.P. started up the route.

As R.P. started up the steeper section of the climb, his hand slipped out of his tool and he fell one or two feet, leaving his ice tool in place. M.B. helped R.P. reach his ice tool by applying all her weight to the rope to help "heave" him up. From there, R.P. climbed up and over the steep section and then asked to be lowered. R.P. began to lower over the steep part of the wall when he suddenly became airborne. He fell four meters, bounced on an ice ledge and then slid down another ten meters head first on his back. He was stopped by a large rock.

R.P. was unconscious for about two minutes. Other climbers called 911 and began an initial assessment of the victim. They were careful not to move him for fear of spinal injury. Warm clothing was placed around and over the victim.

The other climbers noticed that the waist belt of R.P.'s harness was not threaded through the buckle as it should have been.

Volunteer police and fire officials and the Emergency Medical Team arrived on the scene. Transportation of the litter down the hill took approximately one hour, with about 25 people involved. R.P. was diagnosed with a broken clavicle, four broken vertebrae, four broken ribs, a bruised lung, a fracture in the bone area under the eye, lacerations to the face and back of the head and undetermined head injuries. (Source: Diana MacGibbon, Ottawa)

Analysis

The top rope system was examined and found to be sound, including the presence of the still-locked carabiner attached to the figure eight knot at the climber's end of the rope. An inspection of R.P.'s harness revealed no obvious damage, and the climbers testing it after the accident found that they could not pull the waist belt apart even when it was only passed through the buckle once (i.e. not doubled back). It is possible that R.P. did "double back" the harness, but failed initially to pass the webbing through both sections of the buckle. The harness had a leg yoke separate from the waist belt and the two were intended to be connected by a carabiner. R.P. did not clip the locking carabiner through the leg yoke.

Many climbers are taught at an early stage to check their partner's harness before climbing. As climbers become more experienced, practices such as this are often discontinued. No matter what experience level, it is always a good idea to look at your partner's set up, particularly when bulky winter clothing may have obstructed their view of the harness.

Although it may not have affected the outcome of this accident, many climbers argue that top-roping with a carabiner attached to a figure eight knot is unacceptable because of the risk of a cross-loaded carabiner gate. It is safer practice to tie directly the rope directly into the harness. (Source: Diana MacGibbon, Ottawa; Nancy Hansen)

FALLING ROCK—HANDHOLD CAME OFF Quebec, Gatineau Park, Home Cliff

On April 15, several climbers were top-roping on "Home Cliff" at the Luskville Escarpment. C.M. (33) had reached the top of his climb and was making his way above the other climbers over to one of the anchors. There is a low angled slab above the middle route where the anchors are located. C.M. was partway up the slab and was on a ledge, approximately six meters back from the edge of the cliff. He stepped down from the ledge onto the slab and felt something move under his feet. He then noticed a boulder, 45 centimeters in diameter, rolling towards the edge of the cliff about three meters away from him. He yelled "rock" to the climbers below. The rock landed on the left foot of one of the belayers.

A cell phone was used to call emergency services. Other climbers applied first aid to the victim, P.M. All of the climbers in the area assisted with P.M.'s evacuation, which involved moving him in a litter down steep terrain via a