

## UNITED STATES

*PULMONARY EDEMA AT LOW ELEVATION—California, Sawtooth Range.* Friday morning I got a call from some Oregon State University friends inviting me to join a group of four that would be climbing in the California Sawtooth Range, west of Bridgeport, California, in the eastern Sierras. I frantically packed and drove all day Saturday to meet them Sunday morning. We had a great time, with the exception of a little incident that arose Tuesday.

We awoke in our snowcave at 6 a.m. Tuesday to discover Steve Mikesell (21), rock and ice climber (spent last summer in Bugaboos in Canada), coming down with an acute case of high altitude pulmonary edema, at 8350 feet elevation. It struck so fast during the night that he was already semiconscious, too weak to move himself, respiration –50/m, pulse 120–130/m, by the time we woke up and realized he was sick.

We evacuated him over snow, lashed inside a bivouac bag, lined with stiff foam pads to give some sled action, and inside his sleeping bag. It took us seven hours to get him 1.7 miles, down 1300 feet to the nearest roadhead. Weather was 25 degrees, 30 mph winds, snowing heavily, and the storm had dumped 18 inches of new powder on the ground during the night.

I sent our weakest skier ahead for help during the steeper last 0.3 miles, and an ambulance with oxygen and an EMT was waiting for us at the road. The EMT was a radio communication with the Bridgeport Hospital and the only doctor for 75 miles. Steve was put on an IV of ringers and given lasix (a diuretic) before he started for the hospital. Emergency room X rays showed that only 20 percent of his right lung was still functional. (Source: Bill Laxson via Dennis Burge.)

*Analysis:* This account is included to reemphasize the insidious nature of pulmonary edema. It knows no age boundaries and can occur at relatively low altitudes. The climber was fortunate to have had people on hand who knew both the symptoms and the appropriate emergency procedures (Source: J. Williamson.)

*EXPOSURE AND EXCEEDING ABILITIES—California, Yosemite, Half Dome.* Dave Diegelman (17) and Bill Brice (17) had been climbing for the full day of August 19, 1975, on Half Dome's Regular North Face, VI 5.8, A3. It started to rain moderately hard at 3 p.m. The climbers continued on for one more hour to reach the bivouac ledge (13th pitch). The rain continued all night, and was accompanied by freezing temperatures. This weather had been preceded by several months of relatively clear and warm weather. The climbers experienced exposure and exhaustion all night, and the next morning began yelling for help until about noon, when they were heard. Rescue was effectuated from above, the victims jumaring 1200 feet to the top under NPS rescue personnel supervision. (Source: Edited from the NPS Search and Rescue Incident Report submitted.)

*Analysis:* This storm was unusually severe for the Sierras in summer. The young men weren't prepared for this exciting moment because they had only