



## AAC Publications

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### **Fall on Rock, Carabiner Broke – Improperly Loaded**

Kentucky, Red River Gorge, The Flank Wall

On March 29 a climber on Mercy the Huff (5.12b) fell at the eighth bolt. This bolt is located at the lip of a little black “rooflet.” After clipping the bolt, the climber made a long move to a crimp, attempted to make another move, and fell. The bolt-side carabiner on the draw “snapped” at the top radius in the fall, resulting in a longer and scarier ride than expected. The climber was not injured. (Source: Edited from a report at Redriverclimbing.com.)

#### **Analysis**

Best guess is that the climber either kicked or snagged the draw while making the next long move, causing the carabiner to shift on the bolt hanger. During the fall, the carabiner broke because it was not meant to be loaded on other than its main axis. Carabiners have been known to break in such fashion due to the carabiner being snagged, rotated, or cross-loaded on the bolt hanger.

What can be learned from this, and how this could have been prevented?

Check the bolt placement to make sure that when a carabiner is clipped into the hanger the spine on the 'biner is not exposed to any levering action which might cause it to break during a fall. If so, try a different carabiner or quickdraw that might alleviate the problem. Using a more flexible “trad” draw might prevent the draw and carabiner from shifting on the bolt hanger. Double-check your draws to make sure they are hanging properly and not snagged or twisted. Avoid kicking or shifting your draws as you climb past them. Note that you really aren't out of the “danger zone” when sport climbing until you are fairly high on the route. Try to avoid falling when you have only one draw clipped. (Sources: Redriverclimbing.com and Aram Attarian.)

## Images



A photo of the broken carabiner.

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