



## AAC Publications

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### **'Sticky' Cam Pulls Out**

West Virginia, New River Gorge, Bridge Buttress

**On the afternoon of May 22, a female climber (age unknown) was attempting to lead the route Layback, a 5.9+ trad climb at the popular Bridge Buttress area.** The climber took a short fall, loading her highest piece, a finger-size cam, which then pulled from the placement. The climber's fall continued approximately 12 feet onto a ledge, with the initial impact being absorbed by her right foot, before the climber inverted and her fall was arrested just prior to hitting the ground.

The initial impact resulted in an open fracture that displaced the right foot laterally, exposed and damaged portions of her lower tibia and fibula, severed surrounding connective tissue, and introduced a large amount of environmental debris to the wound. After lowering the climber to the ground, the belayer conducted initial care for the injured limb, assessing for circulation, sensation, and movement (which were all intact). Additionally, he supported the injured limb, shielded it from the climber in an effort to calm her, and called for assistance. Responders transported the patient to an ambulance. (Source: Jeff Hearn, New River Alliance of Climbers.)

### **ANALYSIS**

Post-accident inspection of the spring-loaded camming device (SLCD) that pulled out showed no significant physical damage, deformation, or misalignment of any parts. However, the movement of the cam lobes on the axle was slow and unresponsive. During a fall, a cam's springs and the friction between the lobes and the rock are what hold the cam in place before the downward force on the cam stem translates into outward force on the lobes. "Sticky" cams with reduced motion in the lobes thus are easier to pull out of a crack, especially in slippery or polished rock. To ensure optimal performance, SLCDs should be regularly inspected, cleaned, and lubricated (using a wax- or graphite-based lubricant), and the trigger wires should be straightened so the lobes open and contract easily and smoothly. (Source: The Editors.)

## Images

## Article Details

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