

Interior Region 2

National Park Service
U. S. Department of Labor



Lesson Learned – Chainsaw Mishap Involving Side Bind Great Smoky Mountains National Park

What Happened

On 14 March 2024, a traumatic injury occurred to a Trails Employee within Cades Cove at the Great Smoky Mountains National Park while conducting “log out” operations near the intersection of Elijah Oliver Trail and Wet Bottom Trail that involved an unidentified side bind in a horizontal downed tree.

Two trail employees working together were performing trail maintenance along the Elijah Oliver Trail. One employee was acting as the “Sawyer” using a Stihl MS 261C Chainsaw with a 20” bar, 0.325 pitch, full skip chain and the other employee acting as the “Swamper” and responsible for clearing all logs, limbs, and debris from the trail as the Sawyer was cutting.

The Sawyer moved down the Wet Bottom Trail approximately 20 yards from the trail intersection and noticed a downed tree laying horizontally across the trail with the upper portion of the trunk lodged in a codominant stemmed tree. The Swamper walked approximately 55 yards up the trail to move their GOV closer to the work area as they normally do. The Swamper could not see the Sawyer from the GOV location.

As the Swamper drove to the work area, he saw the Sawyer laying on the ground, on his left side with his head on his left arm and a blood spot on the back of his head. The Swamper exited the vehicle and assessed the situation and noticed the Sawyer was knocked unconscious and bleeding profusely from his nose and mouth. The Swamper ran to the GOV to grab the first aid kit and started administering first aid while tapping and calling to the Sawyer trying to wake him up. The Sawyer regained consciousness and was able to stand and with assistance from nearby hikers, assisted him to the GOV where the Swamper drove the Sawyer to the Cable Mill Visitor Center for medivac and emergency support. The Sawyer was flown to a Level 1 Trauma Center where he sustained multiple facial fractures as the 5.5” diameter downed tree he was cutting with side bind released striking him directly in the face, knocking him backward off his feet approximately 21 ft.

Lessons Learned

1. Chainsaw operators must fully conduct a visual risk assessment on every tree cut to identify potential risks and binds.
2. Proper communication and acknowledgment is important when a team member leaves the worksite area.
3. Cutting operations need to stop when a team member leaves the area – even for a short time.
4. Use the proper bar length when using full skip chain and maintain depth gauges (rakers) according to manufacturer specifications.
5. Ensure PPE is serviceable, available, and properly used.



Pic 1: View of accident scene after tree was cut and where the tree was cut.



Pic 2: Reenactment of tree in original position.



Pic 3: Pic of cut tree showing connection point.