



AAC Publications

Essentials: Clear Weight Transitions

A Critical Yet Often Ignored Step

Cochise Stronghold, Arizona: A climbing instructor stands on a ledge, cleaning an anchor for her students. Amid multiple pieces of tat, she incorrectly threads the rope on which she is to be lowered. She misses the error due to excess slack in the system. She leans back to be lowered and falls.

Kelso, Ontario: A climber leans back to initiate a rappel. Only one strand of the rappel rope is clipped through his descent device. He falls.

High Sierra, California: A climber cleans an anchor and calls to be lowered. Her partner misunderstands and takes her off belay. The climber falls.

What do all three of these real-world incidents have in common, aside from tragic injury and death? In each case, the accident might have been avoided by a climber consciously making a clear weight transition from one piece of cord, rope, or webbing to another. Partner checks and clear communication can help avoid such accidents, but ultimately it's up to each climber to perfect such transitions.

At hanging belays or rappel stations without any big ledges to stand on, gravity makes it relatively easy to see which rope or sling is holding the climber's weight. Whether you're clipping into an anchor after climbing, rigging for a rappel, or getting ready to be lowered, the question of which piece of material is holding your weight is quickly answered in a tangible, tactile fashion.

But at belay stances where you can stand up and unweight your harness, transitions can be murkier and extra vigilance is required. Likewise, familiar climbs and/ or climbing partners we've known for decades can breed transition complacency. In all cases, it's essential to verify that you've moved correctly from one anchor or belay system to the next before you unclip from the previous one.

The most common failures to make clear weight transitions occur when moving from an anchor to a rappel or lower. But the same thinking applies to all sorts of climbing transitions: switching the follower from a top belay onto the anchor; switching from giving a lead belay to receiving a top belay; or a leader transitioning off an anchor tether into leading. In short, clear transitions are important every time you're switching from relying on one particular rope, cord, or piece of webbing to another.

Here's a walk-through showing one example of a clear weight transition at a rappel station. Imagine you're standing on ledge with an anchor at chest height. You have already tethered into the rappel anchor and threaded the rope for de- scent. Now:

(1) Double-check your attachments to the anchor, then consciously transition your weight as much as possible onto your tether(s) or personal anchor system. Step down or lean back so you are fully hanging in your harness from your tether (or tethers).^{*} This clearly demonstrates which pieces of cordage are taking full weight.

(2) Grab the rope strands and rig your rappel device and your third-hand backup.

(3) Stand up tall to pull as much rope slack through your rappel device as possible. Repeat until all

your weight has been transferred onto the rappel ropes and there is just enough slack in your tethers that you will be able to unclip them. Here is where you get irrefutable, tangible proof that your body weight has been fully transferred from your tethers to your rappel lines—otherwise your attachments to the anchor would still be weighted.

(4) Engage your brake hand and unclip your tethers.

Of course, you may encounter situations where performing a clear weight transition is more difficult: when your rappel device is extended from your belay loop with a long sling, for example, or when rappel anchors are situated below waist level, such as slings around the base of a tree. In such cases, the goals of clear transitions still apply, and the deviation from your usual habit should prompt heightened awareness and an extra run-through of your mental checklist for the transition. Even if you cannot follow the exact steps outlined above, you can and should always weight- test the new system before unclipping from the anchor.

It takes just a few seconds to make this safety check—seconds that could mean the difference between a fun outing and a funeral.

Molly Loomis has worked as a guide, outdoor educator, and climbing ranger. She and Andy Tyson co-authored *Climbing Self Rescue: Improvising Solutions for Serious Situations*.

* I like Purcell prusiks as anchor tethers because they offer a smooth, efficient way to transition weight even while the tether is loaded.

Images



A clear weight transition is easily achieved at a hanging stance. After setting up the rappel or threading the rope to lower, pull up and lock off the rappel ropes or ask your belayer to "take" so that all of your weight is on the new system. Now there should be some slack in your anchor tethers, clearly verifying that your weight is safely being held by the new system before you unclip your tethers.

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