

Avalanche Safety Trifecta

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Avalanches are deadly. They kill more people on public lands than fires, lightning, floods or any other natural event. In the last 10 years 114 snowmobilers have died in avalanches in the United States. Triggering a slide can be terrifying. Getting caught is horrific. Digging out your partner is hell. Assessing snow stability is a difficult skill that's never mastered. Like every avalanche forecaster I spend most of my days studying snow, yet I still sometimes get it wrong. We all make mistakes. No one leaves the house thinking they will get caught in a slide. No one plans on car accidents. But they happen. Even the best prepared get caught off guard, but there are three reliable, proven techniques to improve the odds of surviving in the backcountry.

1. Only put one person at a time on a slope.
2. Recent avalanche activity is Mother Nature's number one sign that slopes are unstable.
3. Everyone needs to carry rescue gear.

We could almost halve snowmobiler avalanche fatalities by doing one simple thing: **one person at a time on a slope**. Since many snowmobile accidents involve multiple victims, exposing one rider at a time would drastically reduce the number of fatalities. We do not have to buy special gear, take an avalanche course, read the avalanche advisory, or stop high marking in order to take turns playing in avalanche terrain. There are countless stories of riders stuck on a slope being killed by an avalanche triggered by others heading up to help. The more people riding on a slope, the more potential triggers there are hunting for the weak spot. Multiple burials almost always end up in fatalities because avalanche rescue takes time, time the buried victims do not have. One person at a time on a slope leaves others in a better position to be rescuers if something goes wrong. Armed with this tidbit of lifesaving information, you now have a bullet proof excuse to be lazy and let your friend struggle alone to free his welded sled: you are the rescue team.

The beauty of snowmobiling is that riders travel dozens of miles over many aspects and elevations to find great snow. Although riders see a lot of terrain they routinely miss the mountain's biggest red flag: **recent avalanche activity is Mother Nature's number one sign that slopes are unstable**. Observant riders notice important, bulls-eye data on snow stability. Triggering small slides is a warning that bigger slopes are unstable. Additionally, all avalanches indicate that adjacent and similar slopes are ripe to slide. High marking or even riding on a slope next to an avalanche or on one with the same aspect or elevation is risky business. That's like diving into the ocean for a swim while there's blood swirling around from a recent shark attack. I don't recommend it. Snowpack layers are relatively uniform across mountain ranges and an avalanche indicates with 100% certainty that slopes are unstable. There's no need to dig a snowpit or call the avalanche center because you've been handed a free piece of highly reliable information warning you to play elsewhere.

The third life-saving piece of information isn't free but worth the cost: **everyone needs to carry an avalanche transceiver (aka beacon), shovel and probe.** This equipment will cost \$400-\$500, but that's a small price of admission to staying alive. Serious risk takers owe it to themselves and their families to stack the odds in their favor. A person completely buried in an avalanche has an 85% chance of survival if dug up within 15 minutes. This is only possible if everyone carries rescue gear. Fifteen minutes goes fast. A beacon search takes time and practice to perform. Shoveling is back-breaking aerobic work. A probe can pinpoint the victim, saving valuable minutes. Kayakers wear life vests, mountain bikers wear helmets and snowmobilers should wear avalanche transceivers. Avalanches are violent, tumbling riders and separating them from their sleds. Everyone must carry shovel and probe in a backpack firmly attached to the body. Rescue equipment is useless if it's under your hood or strapped to the back of your sled. It must be accessible during the heat of battle.

Although simple, this trifecta of three precautions can keep you and your partner from dying.