

Avalanche Safety in the Backcountry

The following is a list of some important avalanche safety guidelines to keep in mind while traveling in the backcountry.

Safety Considerations

- Most avalanches start on slopes that are 30 degrees or greater. If you stay off of 30 degree (and greater) slopes and avoid traveling beneath them, your risk is greatly minimized.
- If you remember anything about avalanches remember this: avalanche danger is greatest during and shortly after intensive snow falls. Traveling on or below 30 degree slopes during intensive storms is very dangerous. (Intensive storms are those in which 1" of snow falls per hour)
- Wind moves snow from windward to leeward slopes and can create the same kinds of unsafe conditions created by an intensive snow fall. Stay off leeward slopes during periods of strong winds.
- Watch for the leeward pockets. In much of interior west, many of the mid and low elevation slopes have a lot of sagebrush showing, but every so often there are pockets--sides of gullies, steep short slopes and back sides of ridges--where the wind has deposited snow. Plan your route to avoid these areas. In the Pocatello area alone, 6 deaths can be attributed to people being caught in short avalanches that occurred in leeward pockets.
- One extremely dangerous time in the mountains occurs when a period of cold weather is followed by a sudden warming trend or rain falling on the snow pack. Free water in the snow pack lubricates weak layers and often large avalanches result. Like intensive storms, it is a very dangerous time to be traveling in the mountains.
- Heavy trees provide protection from avalanches, but the trees must be spaced within 3 meters of one another. That's close enough to make skiing annoying. Sparse trees do NOT provide any more protection than open slopes.
- In the spring, big wet, damaging avalanches can occur. The safest time to travel is in the morning after a cold, clear night when the snow is frozen. Get off of steep slopes when the snow begins to soften from melting.

Traveling Considerations

- Traveling alone is risky: two is better, three is better yet.
- Use ridge lines, heavy trees, windward sides or low angle slopes (less than 30 degrees) to minimize your exposure.
- When crossing suspected avalanche slopes, do so one person at a time.
- A slope is not safe just because one or more individuals have crossed it.
- Travel from island of safety (a group of heavy trees, a ridge top, etc) to island of safety.
- Don't camp, eat lunch and rest below obvious avalanche paths.
- Carry emergency avalanche equipment: transceiver, portable shovels, probe poles--and for a hasty snow pit: hand lens, pencil, knife, and compass with inclinometer. At the

beginning of each winter season practice with your transceiver. Know how to use it before you need to use it.

- If you are moving up or down a suspected slope, stay to the side. If an avalanche occurs, the snow may move slower on the flank and allow escape.
- Stay out of gullies. They are natural pathways for avalanches and often fill deeply with snow when an avalanche occurs.
- Know what's out there. Check the [avalanche forecast](#) before leaving on a backcountry trip.

Revised 1/30/99 - R. Watters.