

## The Safety Site

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### AVALANCHE

#### Recreational Safety takes Responsibility & Control

**We have archived 16 fatal incidents with 15 fatalities in the US for the 2023-24 season.** Two could be considered non-recreational snow avalanche accidents - one ski area in-bounds and one during a “commercially” guided trip. We consider recreational incidents to be ones in which the parties were responsible for making their own risk management decisions and plans in the backcountry or "side country". Commercial operations could be called recreational but differ in that professionals are responsible for risk management on behalf of the clients.

**We have archived 19 fatal incidents with 22 fatalities in the US for the 2024-25 season.** Four incidents (6 fatalities) could be considered non-recreational (i.e. professional) snow avalanche accidents - one ski patrol, one heli-ski incident, one cat skiing incident, and one privately guided trip. We consider recreational incidents to be ones in which the non-professional parties were responsible for making their own risk management decisions and plans in the backcountry or "side country". Commercial operations and guiding could be called recreational but differ in that professionals are responsible for risk management on behalf of the clients.

[See results only from avalanche-center.org](https://www.avalanche-center.org)

An avalanche is a large volume of snow moving quickly down the side of a mountain. There are three different types of avalanches, loose snow, dry slab, and wet slab, with varying degrees of danger.

A **dry slab avalanche** occurs when snow slabs on the mountains lose their cohesion due to factors like melting snow or additional snowfall. Both can weigh down the top, hard layer of snow, which then causes the weak, softer snow underneath to give way. The result of this chain reaction is the dry slab avalanche.

A **loose snow avalanche** tends to be the least dangerous of the three types of avalanches. However, skiers and snowboarders should not disregard them because they still have the potential to cause fatalities.

They are referred to as sluffs or sloughs when small, loose snow avalanches occur when cold, powdery snow on the surface slides down the mountainside. Often occurring due to the snows inability to "hang on" to the slope, it can pick up snow and fan out into an inverted V shape as it moves down the mountain.

It is not uncommon to see many small versions of this type of avalanche, especially in areas where it is very cold and the snow is especially light and powdery. However, even the smallest sluff can turn into a troublesome avalanche if the conditions are right. Often accompanied by a powder "cloud", this type of downhill flow of snow can still take skiers down with it or push them off cliffs or into rocks and trees. Although not the biggest killer of the three avalanches, they still have the potential to be harmful.

A **wet slab avalanche** is the slowest moving type of avalanche, but can still be extremely dangerous and leave unbelievable destruction behind.

Air and ground temperature, the steepness of the landscape, the type of snow or precipitation falling, and how the snow or precipitation settles on the ground are all factors that determine what type of avalanche can occur.

Wet slab avalanches often happen in the springtime when the air temperature starts to rise and more rain than snow falls changing the overall composition of the snow.

The biggest contributor to the creation of a wet slab avalanche is water. Skiers should be aware as spring approaches and the days begin to get warmer, a perfect scenario for a wet slab avalanche could be in the making. Although slow moving, this type of natural disaster can be very damaging.

The wet, heavy, often rain soaked snow has the power to move boulders, trees, mud, and anything else in its path. When the moving mass finally reaches its destination, it often looks as though it has transformed into a wall of dirt and debris

According to *The Avalanche Handbook*, avalanches in tree covered areas are infrequent, but they do happen. If you travel in mountainous terrain during the winter, you can rely on very thick tree cover for safety only when there is no avalanche terrain anywhere above the trees.

*Much of this information came from SKISTRONGER.com, with permission to share.*