

## **Sandia Mountain Winter Conditions and Traction Devices**

This is a review various winter conditions which may be encountered in the Sandia Mountains. We will also look at what types of traction devices are available and which ones may be appropriate for use in the Sandias.

### **Sandia Mountain Winter Conditions**

Trail conditions in the Sandias are quite variable. In dry years there may little or no snow. In wet years as much as five feet of snow may be present. Deep snow and icy conditions increase the chance of slips or falls. These risks can be mitigated by using traction devices.

#### **Lower Trails**

The lower trails are typically dry for most of the winter season. After a snowstorm, snow or ice may be present for a day or two, followed by a day or two of mud. Then dry conditions typically return.

#### **Mid-Reaches**

A few inches to a few feet of snow is usually present. Because of warm days, a thin layer of ice often forms on sections of trail in shady areas. The conditions often alternate between dry decomposed granite, stretches of flat granite rocks, frozen decomposed granite, muddy trail, snow packed trail, and sections covered with a thin layer of ice. Sections with a thin layer of ice are the primary areas of concern because the ice can cause slips and falls. This can be addressed by using traction devices. Alternating conditions also pose a problem because installing and removing traction devices is difficult with gloved hands and no place to sit. Traction devices less subject to wear on granite are preferred.

#### **High Reaches**

Conditions vary substantially from year to year. In some years, conditions may be dry with little snow during the winter and are more like the lower or mid-reaches described above.

In other years, as much as five feet of snow may be present in the upper Sandias. Deep, packed snow will usually be encountered. Icy conditions are less likely in mid-winter but may be encountered in the spring and fall because warm days may cause the surface of the snow to melt during the day and freeze overnight.

# Sandia Mountain Winter Conditions and Traction Devices

## Types of Traction Devices

There is little uniformity on naming conventions for the various categories of traction devices. Marketing terms vary significantly. In general, crampons refer to very aggressive devices used in difficult technical conditions. Micro-spikes or traction cleats are medium aggressive devices used in less challenging conditions. Winter boots or snowshoes may also be used to improve traction.

Types of Traction Devices:

- Crampons (Harsh technical conditions with deep snow, ice, and steep slopes)
- Snowshoes (Deep snow. Cleats or crampons built in for icy areas)
- Micro-Spikes (Typical winter hiking. Not good for mixed conditions with sections of dry trail)
- Traction Cleats (Typical winter hiking. Slightly less aggressive than micro-spikes, good for mixed conditions)
- Winter Boots (Aggressive tread, often insulated. Good for packed snow but not for icy conditions)

### Crampons

Generally, not used for hiking in the Sandias. They are heavy and too aggressive for the typical winter conditions. However, they may be appropriate in special situations if heavy snow or ice is present. Crampons are used for ice climbing in the Sandias.



### Snowshoes

Snowshoes are the most appropriate and most used traction device for the high reaches during winter. They provide floatation on snow; however, snowshoes also have cleats or crampons built in to help with icy conditions. Snowshoes are the most used traction used in the upper Sandias during the winter. In some cases, trails can become very snow packed and snowshoes are not needed. In this case, micro-spikes, or cleats may be appropriate. Or even winter boots with a more aggressive tread.



### Micro Spikes

Much less aggressive than crampons. They are good on packed snow with icy conditions. Lower to mid-reach Sandia trails tend to alternate between decomposed granite, granite, snow, and ice. Walking on granite dulls the spikes. Slippery rocks may be encountered crossing streams and micro spikes can slip in these conditions. In mixed conditions, taking micro-spikes on and off many times during a hike poses a problem because there is no place to sit, and gloves must be removed in cold conditions. Fumbling with micro-spikes is a challenge with cold, wet hands.



## Sandia Mountain Winter Conditions and Traction Devices

### Traction Cleats

Appropriate for the Sandias during the winter season because they work well in alternating conditions, and they are less subject to wear than micro-spikes when walking on granite or slippery rocks. Because they are light-weight and work well in varying conditions, experienced hikers in the Sandias usually carry traction cleats for hiking all during the winter season.



### Winter Boots

Winter boots are available which usually have an aggressive tread for hiking on snow. Winter boots may also be insulated to help keep feet warm. Winter boots do not perform well on ice.



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