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## **TRAVEL OVER HARD SNOW (or NÈVÉ) AND ICE**

**Hikers, backpackers and climbers who reach higher elevations will eventually find themselves on snow and ice fields.** Often, travel and climbing are best done when hard snow covers difficult terrain: brush, loose scree and talus, cliffs and the like. Snow climbing is not just for the winter, but it can ease the way year-round for the trained climber. Travel on snow can help maintain a steady aerobic pace within the capabilities of everyone in the group. Glissading, or sliding down a moderate slope while under control and prepared to arrest, is a wonderful way to lose major elevation in minutes.

### **A BASIC PREMISE:**

**Snow is an ever-changing medium.** Snow slopes, safe in the morning, may become extremely dangerous in the afternoon. Hard snow may turn soft in the sun resulting in steps giving way over brush or logs causing dangerous post-holing. Warming conditions may make progress very arduous requiring a change in plans. Unexpected snow storms or white-out conditions may occur making progress impossible. Warming conditions may trigger rock-fall or avalanches. Slick hard ice can form quickly as the sun goes down, making any progress dangerous and arrest all but impossible.

**Travel across a steep hard snow slope with a thousand feet of exposure, is like walking along the very edge of a cliff, with a thousand feet straight down.** A climber falling down a snow slope is slowed only by the nominal friction of clothing and equipment, little different from falling straight off a cliff of like elevation. Hit a bump or catch a crampon and the hapless climber is tumbling or cart wheeling toward rocks, trees or rough terrain below. Broken bones and dislocations and death are likely. The climber must respect the hidden danger of easily climbed snow slopes.

### **THE MOUNTAINEERING ICE AXE:**

**Snow travel on slopes requires practiced use of an appropriate ice axe.** The mountaineering ice axe is used primarily for balance and to stop a fall before it happens; but also for “self-belay” if a slip occurs and “self-arrest” if a fall should occur. Sometimes the axe is used for step-cutting or as a snow-anchor; it should be strong and balanced but not too heavy. The mountaineering axe should be long enough to be used as a cane (piolet canne) in the uphill hand ascending or descending a slope, normally by traversing. A good way to choose the length of an axe: your fingers should just touch the head with the spike on level ground. The axe must be controlled; make a shoulder leash or use a hand leash purchased with your axe. Purchase a rubber head guard; learn to uncover the pick but keep the adze protected by the rubber guard from being blunted by your face or eyes. **The sharp adze should be thickly taped before any ice axe practice.**

### **LINES OF DEFENSE IN CLIMBING SNOW:**

Before you climb forgiving snow or harder snow, you must learn to self belay and also self arrest. **The first line of defense in climbing snow is DON'T FALL. The second is SELF-BELAY. If these fail, you must SELF-ARREST, SELF-ARREST, SELF-ARREST and keep trying to arrest until you stop, one way or the other.**

### **“APPROPRIATE SLOPES” FOR LEARNING SELF ARREST TECHNIQUES:**

Choose “appropriate slopes” as required for instruction and practice: for snow travel, for snow anchors, for belay activities, for ice axe arrest practice and for safe rest, food and split breaks. The term “appropriate slopes” refers to slopes which in the judgment of the responsible instructor are suitable for the level of experience of the participants under the snow conditions of the moment. **ALL SLOPES MUST HAVE TESTED SAFE RUN-OUTS.**

**Each spring, TraditionalMountaineering instructs free field Seminars in Ice Axe Self Belay and Arrest.**