

# **AMC-NH Mountaineering Committee**

## **Best Practices – Guidelines**

Helmets – If there is fall potential (yourself, or something/someone on you), wear your helmet.

Harness – Any "classic" harness will work, a mountaineering harness is more minimal.  
Still a personal preference with comfort, weight, features and other considerations.  
Must have adjustable leg loops to fit over various layers.  
Harnesses may have an "expiration date" so check your harness label.

### Ice Axe Handwork - Carrying Options & Leash Options

Stress the aspect of self-belay and how it contributes to team safety.  
Ensure "pick downhill" orientation is discussed and how it expedites self arrest.  
Maintain proper balance when transferring between hands for direction change.  
Managing the leash - discuss the options of on wrist, on rope, clip to harness. This is usually personal preference, but discuss pro/cons of each option with your participants.  
Self Belay is your primary defense, self arrest should be your last resort, like your car's air bag.

Footwork – Critical for proper balance, traveling efficiency & rhythm, and self belay.

### Roped Travel

Discuss why we clip-in (instead of tie-in) – your clip-in locking carabiner never gets re-opened!  
Location of your prussic ropes are critical. Your butterfly clip-in should always take the fall load.  
Buddy System – you should always check/inspect other team members harness and clip in.  
Passing an Anchor: explain, demonstrate, and practice (single gate pass).  
Team member communication helps maintain rhythm, especially when changing direction.

Which side should the rope be located?

In flatter terrain, generally on the downhill side where the rope will be less in the way.  
In steeper terrain (where the risk of falling is greater) generally, you want the rope on the side that would pull you **into** the slope if a climber **behind** you falls, and the side that will **not** wrap around you should a climber **above** you fall.

### Rope Management

Team spacing (divide rope exercises) - Maximum of climbers on a full 60m rope and why  
Coils on both ends (discuss carrying , decide how much to coil and why)

1. Take up 5-8 coils and tie off the coils using an overhand knot around the coils.  
(These coils should be enough rope to reach the next climber in team)
2. Make a butterfly on the new shortened end, and clip-in (end climbers main clip-in).
3. Rope from this butterfly runs to the next climbers butterfly, and so on...
4. Tie a Figure-8 knot on the real end. End climber clips this in using a separate biner.
5. Coils can go into top of pack, or over pack with clip-in (never under your pack).

The remainder of rope is divided using usual methods.

Butterfly clip-in is what takes the fall as with others on same rope.

Figure-8 on end (and clipped in) closes the system, & distinctly identifies the rope end.

Slack – you may need to back up for the climber ahead when changing direction.

Rope tension between climbers – enough slack so rope barely touches the snow.

Rope Take-up and Pay-out - Belaying the next climber with your prussic.

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Keeping the anchor tidy - coils around your axe as belay backup.

### **Knots**

Figure 8 - predominately for anchor points and the end of the rope when climbing

Butterfly - your butterfly clip-in should always take the fall load, not your prussic!

Prussic – middle team members: tie waist loop on front rope, leg loop on the rear

Orient the prussic loop knot in the middle (of the wraps) so it is part of the wrapped loops on rope (makes for an improvised "handle") - demonstrate and practice

Waist prussic always ties above the foot prussic!

[ Beginners tie one prussic on each rope and explain/demonstrate moving one as needed ]

Clove Hitch - fast, secure way to tie into an anchor

Munter/mule – reversing a rescue system (to lower a climber)

### **Belay Techniques**

Self – relying on your ice axe, using your prussic along the rope

Waist – take in or pay out rope to the next climber, remember safe handwork and to lock-off

Axe/Boot – alternative based upon climber preference and skill

### **Building Anchors – Discuss, demonstrate, & practice**

Anchor choices (picket, fluke, deadman, axe, pack, bollard, etc)

Every team member carries an anchor piece, the remaining gear with members on the ends!

In-line picket placement and trenched runners

Equalized, main versus backup, and redundancy

Monitor your anchors, they can and do melt out from the sun!

Rescue Systems ("C", "Z", etc) should always be closed using overhand or stopper knots.

Knots can jam into pulleys or anchors to prevent free-running rope.

Ascending and Descending with your Prussic.

Communicate with fallen climber before attempting to haul!

### **Climber Awareness**

In the event a climber falls, everyone remain calm and think clearly. The fallen climber(s) should remain calm and minimize movement until team members above communicates it is safe to move. The team can't help any fallen climber(s) unless the remaining team is safe first.

### **Dressing for Success**

Layers and full coverage to prevent sunburn, including hat with neck protection

Thin liners to protect your hands

Sunscreen and Glacier Glasses

### **Packing for Success**

Accessibility of clothes and critical gear (insulating jacket, gloves, headlamp, anchor, etc)

Clip in your pack to the rope or harness so you don't lose it

Chest Harness - Improvised with a 4 foot webbing sling or use structurally supported pack straps