

Clothing System for Ice Climbing

Warmth during ice climbing requires a different mindset and system than some other winter sports such as downhill skiing or Nordic skiing. One requires bulky insulation for sitting around and ski lift lines, or thin insulation for the aerobic output of Nordic skiing. Ice climbing may require both, and another system for the actual climbing. This article will present a clothing system for managing the tricky balance of generating heat and staying dry while engaging in winter ice climbing.

The three keys to staying warm are: keeping dry, keep moving, and planning. The most frequent way to get wet while ice climbing is through sweat. Yes, you can overheat while climbing or on the approach and end up with wet insulation that is cold. If this happens you will be cold the rest of the day, which may end up being shorter. Avoid sweating by planning ahead. Give yourself the time you need to control your pace, and control your clothes by using appropriate layers for the approach, climb, and belays. Always change the clothing system before it is necessary. Add a layer before you get cold when you stop, and remove layers before you start moving.

To generate heat you must keep moving. Movement requires energy. Eat a big breakfast that contains a high fat and protein amount. Eat eggs, bacon, or a similar breakfast, rather than oatmeal. During the day eat carbohydrates; GU works, it is fast and will not freeze or get brick hard. Hot liquids are also a good idea, such as tea, hot chocolate or hot sport drinks. During the day, keep moving at a controlled pace. The only time you should not really be doing anything is while you are belaying. You can do squats while belaying to stay warm.

The clothing system.

There are three systems for ice climbing: approach, climb and belay. The approach is the aerobic part. You will be generating heat from walking with a pack. During this time it is important not to sweat or you will be cold the rest of the day. Start the approach cold. That is, if you are warm when you throw your pack on you are over dressed. The first minute or two of the walk will warm you up. If you start to overheat, stop! And take a layer off; you could take the hat off and use a head band instead.

The approach clothing system

The approach system for 25° weather with little or no wind should have the following:

- Thin polypro pants
- Softshell pant
- Thin polypro long sleeve top
- Head band and thin liner gloves

If it is colder 15°- 20° and the approach is long add a vest or fleece shirt. You may want to have a short sleeve polypro shirt under the long sleeve as an option. Try and avoid the soft shell because it will be too warm. However, the wind may

dictate whether you add the softshell jacket to this system during the approach. You should feel cold as you start out. In a minute or two, you should be generating enough heat to be warm. If not, walk faster or add a layer like a fleece shirt. AVOID starting out bundled up and warm. I have climbed with people who do this and it takes forever to get to the climb, because either they have to move slowly to avoid sweating or they are constantly stopping to shed another layer. I prefer to use a headband during the hike in. I feel warm because my ears are warm, yet all the excess heat dissipates through my head. This setup is the same one I use for winter trail running. The energy output is similar to carrying a pack.

Ascent clothing system

This should include the above items, but add a softshell jacket, change the headband to a skullcap or thin hat, and remove the thin liner gloves and put on your belay gloves and belay coat if you are first to belay or climbing gloves if climbing first.

Belay system

Whenever you are not climbing or approaching the climb, you should be using your belay system clothing. This is a down or synthetic jacket with or without a hood. Use one with a hood if you are in colder climates or in exposed alpine terrain. Use your belay gloves and be sure to keep all of your gloves dry. Wild Things makes three different belay jackets with three different thicknesses of primaloft insulation.

Climbing system

The climbing system is the soft shell pants, polypro shirt, fleece shirt, soft shell jacket, hat, and soft shell gloves. This system will vary depending on the temperature and wind. Most people will want a thin pair of polypro pants under the softshell pants. In colder conditions under 20°, I may use fleece pants under the softshell. The R1 fleece pants works great. Additionally, I may add a fleece vest if it is cold and a smart wool neck gaiter if it is windy. The neck gaiter adds a lot of warmth and can be too hot, but when it is cold, I pull it up over my mouth and nose to warm the air I breathe. This really makes a difference.

Plan ahead by anticipating the need for changing clothing when changing climbing systems; for example, do not forgo the belay jacket just to save time. If the lead takes longer than you think, you'll get cold and be miserable. Remember that when you go from a more sedentary climbing system to a more active climbing system, you will feel cold at first, but if you leave the unnecessary layers on you will start to sweat too much and get cold faster. Be sure to take the belay jacket off before you start climbing. You will get too warm and sweat too much if you leave it on.

Clothing

All clothing should be synthetic, down, or wool. Cotton kills in the mountains. Patagonia makes capilene synthetic insulation, which is an excellent product. Smartwool and Ibex both make merino wool insulation which is an excellent choice. Get a variety of thicknesses from thin to expedition weight.

The shell clothing should be a softshell material. Softshell material will breathe extremely well, block wind, and be reasonably water resistant. This extremely breathable, highly wind resistant material is ideal since sweat is the most likely cause of getting wet. Shcoller and Madden Mills are two manufacturers of softshell material. Look for pants and jackets that are made of this material. Companies that make softshell garments include Patagonia, Mammut, Marmot, Mountain Hardwear, REI, and EMS. There are more than this, so check the label for the fabric.

What you need (I will list some brand names and models for examples only):

Extremities (head, hands and feet)

The extremities have a major role in our comfort level while climbing. Your core temperature may be fine, but if your ears are cold you may feel cold. This is due to the rapid heat loss through these body parts. The benefit to this is that you can fine tune your comfort level by adjusting the amount of insulation on the extremities. Have a variety of garments to choose from, based on the conditions. For example, I have two different neck gaiters: one thick fleece for really cold days and a thin wool one for normal 25° days.

Head

1. thin polypro hat or skull cap
2. thick polypro hat or balaclava
3. headband
4. neck gaiter (I use Smartwool®)
5. sunglasses (dark lens and amber for clear days)

Gloves

There are a few systems for using gloves. I will outline two.

System one

1. *Approach* (2) pair thin liner gloves synthetic or wool
2. *Climbing* (2-3) windstopper® soft shell or fleece gloves. It is surprising how thin you can use while you are climbing. The thin glove will speed up the climbing as you remove ice screws and unclip ropes. As the glove gets wet you will use a new “dry” pair for the next pitches.
 - a. OR® windstopper® fleece glove
 - b. Mountain Hardwear® gravity glove
 - c. Manzella® trekking gloves
3. *Belaying*- Mittens or gloves with nylon shell, liner with Gore-Tex® and insulation. Rated to about 15°. Do not get this too thick! You still need to work with gear
 - a. Black Diamond Glissades®

- b. Chalet Moser®
- c. Mountain Hardwear®

System Two

Some people prefer to use a simpler system. This system uses an approach glove and a climb/belay glove.

1. *Approach* (4) pair thin liner gloves synthetic or wool
2. *Climb/Belay* (2 pair) Gloves with nylon shell, liner with Gore-Tex® and insulation. Rated to about 15°. Do not get this too thick! You still need to work with gear. One glove is used for belaying and climbing until the insulation gets wet with sweat. Glove liners are switched out to reduce the wetness.
 - a. Black Diamond Glissades®
 - b. Chalet Moser®
 - c. Mountain Hardwear®

Feet

1. Liner sock (synthetic or wool)
2. Medium weight hiking sock (wool)
3. Gaiters

Core (Chest and legs)

Upper body

It is critical that the chest area remain sweat free. This is the core of your body and it must maintain the proper temperature. If your core is cold, the rest of you will get cold.

Upper body

1. Thin polypro long sleeve shirt or merino wool
2. Expedition polypro long sleeve shirt or merino wool. A fleece with a hood and thumbholes is a nice addition.
3. Thin polypro short sleeve shirt
4. Optional: fleece vest (Patagonia® R.5 or Ibex® wool)
5. Optional: 100 wt fleece long sleeve top (colder weather 15°)
6. Softshell jacket
 - a. Patagonia® Dimension or Mixmaster
 - b. Cloudveil® Black Ice jacket
7. Thin polypro long underwear pants
8. Softshell pants
 - a. Patagonia Dimension® pants or Guide pants®
9. Optional: expedition weight capilene pants or R1 pants (for cold weather)
10. Optional: hard shell pant with full side zips.
11. Belay jacket- insulated down or synthetic with hood that fits over a helmet

These garments should provide the right combination for the weather and rate of travel.

Check list

- thin polypro hat or skull cap
- thick polypro hat or balaclava
- headband
- neck gaiter (I use Smartwool®)
- sunglasses (dark lens and amber for clear days)
- () liner gloves
- () fleece windstopper® gloves
- () belay glove
- polypro top long sleeve
- polypro top short sleeve
- softshell jacket
- polypro pant
- softshell pant
- liner sock
- medium weight wool sock
- gaiter
- fleece vest
- long sleeve fleece top
- belay jacket

Optional

- Hard shell pant (full side zips)
- Sunscreen
- Hand warmer