



# Winter Survival Weekend

## Tips and Best Practices for Living/Working in extreme cold weather conditions.

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### Survival Priorities

Understand the law of 3s when it comes to survival:

- You can last on average:
  - 3 minutes without air
  - 3 hours without shelter
  - 3 days without water
  - 3 weeks without food
- These are not exact measurements. Your mileage will vary, but this will help you understand what is most important when it comes to survival.

### Living in the Cold

- The key to staying warm is staying dry!
- Staying dry involves several things:
  - Avoiding getting wet
  - Regulating body temperature.
  - Use powder!
- Avoid water hazards. If at all possible, avoid any situations where things could get wet.
- Regulate Body Temp. Try to keep yourself warm, but not hot. That means if you get too hot, lose a layer or two of clothing. If you get cold, add one or two. This is where the layering concept comes in. If you sweat, you get wet. Avoid sweating.
- **NO COTTON!!!** Use wool or synthetics. Cotton absorbs and holds the moisture causing to you cool much faster. Synthetics and Wool wick the moisture away from your body. Read the labels for your clothing to ensure that you are not using cotton! White athletic socks are generally 100% cotton.
- Powder anything that tends to get wet. Hands, feet, or other areas.
- Wet clothing can be dried out by a fire or in your sleeping bag or by putting it under your jacket.

### Treating Cold/Wet Weather Injuries:

- “If your feet are cold, put on a hat”.
  - When your hands or feet are getting cold, it’s a sign your core body temperature is dropping. Your body compensates for this by attempting to sacrifice the extremities to protect the core body (head and torso).
  - Warm the person
    - More clothing on all parts of the body, not just the parts that are cold.
    - Hand/Toe/Body warmers
    - Keep them moving around if able. Have them do some light exercise.
    - Get them close to the fire
    - Get close to your neighbor. Use other people’s body heat.
    - Warm building (if available)
    - Sleeping bag(s) or blankets (including space blankets).
  - Dry their clothing
    - Setting things near a fire will dry them from the radiant heat of the fire.
    - Do not get things too close that they burn.

- If we are unable to warm the person through those methods, we will get them out of the area to safety.

### **Building a Cold Weather Shelter**

- Avoid heavy roofs – possibility of midnight cave-in.
- Dig a rectangular hole or build up walls of snow. 3 sides, the 4th is your entrance. Keep the entrance as small and low as possible and pointed away from the wind. The shelter should be just big enough and high enough to fit however many people will be sleeping in it.
  - Use a tarp or poncho for the roof. Angle it. This will allow moisture to flow off the inside of the roof as it accumulates.
  - Anchor the poncho or tarp with snow, rocks, sticks or anything available.
  - Use snow to level the bottom so that you're sleeping on a flat surface.
  - Get yourself off the ground if at all possible. Sleeping pads, dry grass, pine bows are all great insulators and will help keep you warmer. The more of this stuff under you, the better.
    - One layer underneath you is as good as having two on top of you.

### **Sleeping in the cold**

- Go to the bathroom just before you go to bed! It's a pain to get up in the middle of the night and a lot of work and wasted energy.
- Always sleep on top of a ground pad or natural insulation. The ground sucks the heat out of you.
- Getting into bed:
  - Have as much clean, dry clothing on as possible. Dirty or wet clothing only makes you colder faster.
  - Remove boots. Leave them outside your bag, but inside your shelter so they do not get rained or snowed on. They will air dry, even in the cold. Pull liners and insoles out of boots to increase drying.
  - Crawl in. As you take off layers, stuff them inside your sleeping bag. Against the zipper, in the feet, etc. Works as extra insulation against cold.
    - Jackets work great wrapped around your feet to keep them warm.
    - Putting mittens over your feet also works.
- Do not sleep with your head inside your bag. Moisture from your breath will cause you to get cold quickly.
  - Use drawstrings to close hood tightly around your head so the only thing exposed is your nose and mouth.
  - If your nose or mouth get cold, lay a scarf or cold weather mask lightly over your nose and mouth, but make sure that moisture escapes to the outside world and not into your sleeping bag.
  - If you get cold, stand up in your sleeping bag and run in place or do flutter kicks or some other kind of exercises to warm up.
  - If you do have to get up in the middle of the night to go to the bathroom, do it! Holding it just causes your body to divert energy from other places to your bladder and you will be miserable all night.
  - Open your sleeping bag for a min or so occasionally to let the moisture escape if you are feeling damp.
- When getting out of bed in the morning, reverse the process.
  - Get dressed inside the bag as much as possible and then crawl out and put your boots and outer clothing on.
  - Make sure you check for small animals in your clothing and boots that are left outside your bag.
- Leave your sleeping bag open during the day to let it air out. Make sure it does not get rained or snowed on.

### **Working in the cold**

- Movement will be slowed by 50-60% in snow.
- Daylight hours are fewer
- Everything takes about twice as long.
- Add or remove layers to keep from getting too hot or cold.

### **Winter Gear Tips/Tricks**

- Lithium Batteries instead of Alkaline
  - More expensive, but lighter, last longer, and work to -40 F, alkaline batteries generally stop working at 0 F.
  - Don't always work in all electronics though. Read the manual for your device.
- A little bit of Gatorade in water helps lower the freezing point
- Do not fill canteens completely full in case they do freeze.
- Canteens can be stored upside down in a snow bank to keep them from freezing. Make sure you mark the spot.
- Hand warmers will help keep canteens from freezing if put in the pouch with them
- Camelbacks need to be kept under your jacket to keep from freezing.
- Make sure everything in your pack has at least 2 uses to eliminate weight.