
CONQUERING
A KINGDOM OF ICE
FREEZING COLD WEATHER SURVIVAL HACKS

Dear Friend,

I want to share with you what I think are some of the most important know-hows of surviving the freezing cold. Each and every single tip you're going to read about could potentially save your life when faced with extreme cold temperatures and no shelter.

I suggest you read it more than once so everything you learn gets imprinted in your memory.

Here are just 4 of the most important things you should remain with after going through this report:

- 5 simple as ABC rules to apply when exposed to extreme cold…
- Why you should never trust your own judgment when fighting cold (instead, rely on this small little item)…
- The Inuit test that tells you to get warm now…
- How to buy yourself between 30 min and an hour if you get caught in an avalanche and land face down.

Hope you find this month's report useful and wait forward for February's issue.

Alec Deacon

Survivopedia.com

DISCLAIMER

THE INFORMATION CONTAINED IN "**CONQUERING A KINGDOM OF ICE"** IS MEANT TO SERVE AS A COMPREHENSIVE COLLECTION OF STRATEGIES THAT ARE ONLY RECOMMENDATIONS BY THE AUTHORS, AND READING THIS EBOOK DOES NOT GUARANTEE THAT ONE'S RESULTS WILL EXACTLY MIRROR OUR OWN RESULTS.

THE AUTHOR OF "**CONQUERING A KINGDOM OF ICE"** HAS MADE ALL REASONABLE EFFORTS TO PROVIDE CURRENT AND ACCURATE INFORMATION FOR THE READERS OF THIS COURSE. THE AUTHOR WILL NOT BE HELD LIABLE FOR ANY UNINTENTIONAL ERRORS OR OMISSIONS THAT MAY BE FOUND.

THE MATERIAL IN "**CONQUERING A KINGDOM OF ICE"** MAY INCLUDE INFORMATION, PRODUCTS, OR SERVICES BY THIRD PARTIES. THIRD PARTY MATERIALS COMPRISE OF THE PRODUCTS AND OPINIONS EXPRESSED BY THEIR OWNERS. AS SUCH, THE AUTHORS OF THIS GUIDE DO NOT ASSUME RESPONSIBILITY OR LIABILITY FOR ANY THIRD PARTY MATERIAL OR OPINIONS.THE PUBLICATION OF SUCH THIRD PARTY MATERIALS DOES NOT CONSTITUTE THE AUTHORS' GUARANTEE OF ANY INFORMATION, INSTRUCTION, OPINION, PRODUCTS OR SERVICE CONTAINED WITHIN THE THIRD PARTY MATERIAL.

WHETHER BECAUSE OF THE GENERAL EVOLUTION OF THE INTERNET, OR THE UNFORESEEN CHANGES IN COMPANY POLICY AND EDITORIAL SUBMISSION GUIDELINES, WHAT IS STATED AS FACT AT THE TIME OF THIS WRITING, MAY BECOME OUTDATED OR SIMPLY INAPPLICABLE AT A LATER DATE. THIS MAY APPLY TO THE "**CONQUERING A KINGDOM OF ICE"** AS WELL AS THE VARIOUS SIMILAR COMPANIES THAT WEHAVE REFERENCED IN THIS EBOOK, AND OUR SEVERAL COMPLEMENTARY GUIDES. GREAT EFFORT HAS BEEN EXERTED TO SAFEGUARD THE ACCURACY OF THIS WRITING. OPINIONS REGARDING SIMILAR WEBSITE PLATFORMS HAVE BEEN FORMULATED AS A RESULT OF BOTH PERSONAL EXPERIENCE, AS WELL AS THE WELL DOCUMENTED EXPERIENCES OF OTHERS.

CONQUERING THE KINGDOM OF ICE

Freezing Cold Weather Survival Hacks

I suppose fighting the cold isn't as sexy as fighting bad guys, but from a standpoint of survival risk assessment, you are far more likely to succumb to cold weather exposure, than to die bugging out ahead of a cataclysm, fighting off legions of looters or freeing yourself from unlawful restraint.

Anyone who spends a moment or two of quality thought on risk assessment will agree with this premise, yet many students of survival invest a disproportionate amount of resources preparing for scenarios which are least likely to occur.

It does not make sense to ignore the threats that are most likely to do you in in favor of those which are the least likely. Deaths from hypothermia are very common even in good times. Turn off the electricity, even for a few hours, and those numbers spike.

So take a moment to bone up on this core topic.

The Rules

My version of the fundamental principles of survival is as follows:

- Stay alive!
- Be aware of, and alert to, anything that can kill you.
- Do not take unnecessary risks.
- Continually and proactively improve your situation: body, mind & spirit.

- Signal to effect rescue.

Here are those same rules applied to Cold Exposure:

- Stay Alive! The moment this stops being a priority, you embark on a downward spiral of compromise which will end poorly, and quite possibly, terminally.
- In this case, your enemy is hypothermia. To prevent it, you must generate heat and prevent its loss. Heat loss is a process, not an event. Use this to your advantage by using the time it gives you wisely.
- Do not take unnecessary risks that may result in slowing heat generation or speeding heat loss such as exposing yourself to moisture, cold water immersion, wind or sitting on the cold ground without adequate insulation.
- Keep working to improve your situation. Cold exposure causes lethargy, and discourages proactivity.
    - *Body:* at advanced stages, hypothermia results in the impairment of fine motor skills to the degree that even striking a match or working a lighter becomes impossible, so you need periodically monitor your environment and your status to prevent it.
    - *Mind:* hypothermia will eventually impair mental function so badly that following even simple instructions will become difficult and you will lose any rational decision making ability that you normally possess. Your mental state will degrade and cause you to make poor survival choices that you would not normally make.
    - *Spirit*: as hypothermia sets in, you will become irritable, impatient, depressed, cynical and devoid of the positive, optimistic attitude that is so critical to survival. At advanced stages, you will lose motivation and feel an overwhelming desire to sleep. If you do, you will likely not wake up.
- Successfully signal the good guys, and chances are good that they will do everything in their power to end your suffering. Signal the bad guys, and they will work equally hard to the same end.

Why Exposure Is Such a Threat

Heat loss is a devious and subtle process. It can occur over minutes, hours or even days. Understanding that hypothermia is a process, as opposed to an event, works in your favor.

Most people do not take measures to generate heat or prevent heat loss soon enough. While many people carry space blankets, *space blankets only prevent heat loss, they do not generate heat. If you wait to use a space blanket until you are too cold, there will not be enough heat to reflect back to you to do any good.*

This makes a strong argument against "break glass in case of emergency" gear vs gear that you use and reuse all the time. It also makes a strong argument for setting trigger criterion that govern when you will use "break glass" gear.

Catastrophic risk analysis and emergency preparedness are both based in the idea that in certain circumstances, making a small investment up front avoids paying a much greater price later on. Cold weather exposure is just such a circumstance. It is dominated by this principle. It pays to stay ahead of the heat loss game.

Cold weather exposure is subtle in the regard that it is very easy to underestimate its danger. Danger of hypothermia exists in water as warm as 70 degrees F and air in the 60's F.

Humans must maintain a very narrow core body temperature range in order to stay alive. Your core body temperature only needs to drop three or four degrees F before the onset of hypothermia at 95 degrees.

Hypothermia enters a more serious stage every two degrees your core body temperature drops below 95 degrees until it enters its terminal stage between 87 and 90 degrees, so prolonged direct contact water or

the earth, both of which have a far greater thermal mass than you do, will result in death. This holds true even in temperatures that most people do not consider to be dangerously cold.

Most people tend not to take cold exposure seriously until the temperature drops to about 40 degrees F or so. This myth costs more than 1500 lives per year in US alone … even with top notch emergency and cell services in most of the nation. Keep in mind that those are just the recorded deaths in one country. Many more pay a huge, largely preventable, price in human suffering because they fail to prepare for the cold.

Tools of the Trade

Thermometer with wind chill chart printed on the back.

Fortunately, you can even take these through security at the airport, for now. This tool is important because judging temperature is difficult even before hypothermia sets in and impairs your judgment.

I hear it all the time, "I've learned to judge temperature by experience." That is well and good as long as you never get cold enough to be in any serious danger of hypothermia, but as soon as you are, that ability to judge is one of the first things hyperthermia will take from you, so I carry a thermometer in my survival tin and one on my jacket zipper.

I've tried many thermometers designed to attach to keychains and zipper pulls over the years and many are not rugged enough for every day carry. I'm currently using a Silva Tech Forecaster 610. It works very well and has held up for around 10 years of EDC so far. Not bad for $7.50.

The most common failure in keychain thermometers is that the thermometer becomes dislodged or broken. As with any instrument, it should be tested periodically. Be sure not to leave it inside your clothing, in the

sun or in contact with your body or the heat will throw off the reading. This is a common problem with thermometers in watches or attached to watch bands.

To use a thermometer that is integrated into a watch, attached to the band or that has a lot of thermal mass, remove it from your person so it can adjust to the air temperature, this may take up to an hour depending on the temperature difference and the thermal mass of the thermometer. Air is warmer even on the exterior of your jacket than six inches away from you.

Hypothermia Thermometer for measuring core body temperature.

I carry these in first aid kits in my ruck, vehicles and first responder gear. Most thermometers only display a temperature range to cover fever, so you need to get a model with a temperature range down to 85 degrees F and up to 107.

Crampons, Ice Cleats or Hex-head Screws such as Yaktrax, MICROspikes, Stabilicers, ICETrekkers and similar products prevent slipping on ice.

I just carry a set of short, slotted, galvanized, hex head screws, just like Stabilicers use, and screw them into the soles of my boots as needed.

This is an old mountaineer hack that is lighter, less bulky and has greater utility than strap-on ice cleats unless you are planning on climbing an ice wall.

Then you will need crampons, a pair of ice axes, an updated will and a low IQ. Military surplus crampons are cheap, at about $10 per pair, but a handful of hex head screws is even cheaper.

Mobility Gear including snow shoes, skis, poles and sleds all greatly increase mobility and load carriage.

This is important because you need more food, fuel and insulation in extreme cold. You also want to exert yourself as little as possible to avoid working up a sweat because it will make you miserable at the very least, dead at the very worst. You can pick up a pair of surplus skis or snowshoes for $20 and they have many uses. Snow shoes have a shorter learning curve and are effective in a greater range of terrain. Skis use less energy, but you need to stick to ground where they are effective.

Lip Balm

Dermatone Lips 'n Face, SmartShield and a few other brands are formulated to serve double duty as both lip balm and sun block for your face and hands. This cuts down on the amount of gear you need to carry or adds a layer of redundancy at your option … and options are good.

For some trips I use military issue "RVPaba Lip Stick, Anti Chap, Cold Climate, Sunscreen – Lip Protectant. Ironically, since it is a cold weather product, it does not melt until very high temperatures, unlike most other lip balms.

Like other products mentioned, it also contains sunscreen and can be applied to the face and hands.

One more option is any product comprised of pure white petrolatum, such as Vaseline Advanced Lip Therapy and a number of generic products. White petrolatum is useful because it has additional medical uses and can be combined

with cotton balls or makeup pads, just like petroleum jelly, to make effective accelerant-augmented tinder. It can also be used to recharge dried-out Tinder Tabs.

Sun Screen

Snow reflects light, including UV light. Combined with windblown ice crystals, cold, and thinner atmosphere encountered at higher altitudes, sun burns and chapped skin occur much than in warmer weather and at lower elevations.

Sunglasses

UV-protective lenses treated with a fog preventative lens treatment help cut down on snow-reflected light and prevent snow blindness. Blinders or side shields also help.

Hand Warmers

There are several option now for hand warmers. They include: chemical, liquid fuel, solid fuel, and electric. You have to keep an eye on them and keep them separate from ammunition, combustibles and explosives, but they actually produce heat as opposed to simply preventing the loss of heat and that can be a life saver.

For long term use, I use reusable chemical hand warmers that I recharge by boiling. They are a little heavier but are reusable.

Hot Water Bottle

It is old school, but reusable and multi-use. You might get a look or two from uninitiated buddies the first night out, but if you bring two, they will be fighting over the spare on the second night of extreme cold and they just might prevent you from having to cuddle with a friend.

Fire Kit

Dry out and generate heat. In addition to the standard gear most outdoorsmen carry in a fire kit, I always carry an Orion flare/fire starter in cold weather and store my fire kit in a small lightweight bag that can keep it dry if it gets dunked.

The Orion product functions exactly like a road flare, but is slightly smaller than one. If you cannot start a fire with a road flare, you are not likely long for this world. They put out enough heat to light a 2x4 without any tinder and can dry out moist wood, so starting a fire with one is pretty straightforward.

They also do not require any fine motor skills. You can use them effectively taking off your mittens and that is exactly what you want in extreme cold. You are best of building a reflector fire.

Most students new to extreme cold do not build a big enough fire. Built it too big and you may work up a sweat gathering wood to feed it. Built it too small and it will not keep you warm and you will have to tend it constantly and will not get any sleep.

As a general rule, gather enough wood that you think it should last through the night and then triple that. If you bury hot rocks under your bed, avoid river rocks as they sometimes hold pockets of moisture and explode when heated in a fire.

Candle Tin

Essentially a small campfire in a survival tin, it is a survival tin filled with beeswax. They have three or four wicks so you can light as many wicks as need to warm up or heat a packet of soup so you can regain enough dexterity to build a proper fire or light just one or two to make it last longer.

Emergency Shelter

A space blanket or a Mylar-lined emergency poncho a clear plastic poncho, a little duct tape, some para-cord fit in a pocket and with them, you can construct a shelter that will keep you dry, out of the wind and up to 50-60 degrees warmer inside than out. Just be sure to put a pack or

folded space blanket filled with vegetation underneath you to insulate yourself from the cold ground.

Cold Weather/Long Range Patrol Rations

Your body needs double the calories to keep warm in the cold and during extended period of intense physical exertion. Cold weather rations fill the bill. I also carry soup mixes and bouillon packets to make hot broth and soup. It warms up your hands and warms you up from the inside out.

Snow Shovel

The Preferred digging method

Some models have snow saws, wood saws or avalanche probes in the handles. I always carry at least an ultralight model without a handle called a Snow Claw in my pack. They work very well have slots designed into them so they can double as snow shoes.

Avalanche Probe

A collapsible rod used to probe for people buried in an avalanche.

Avalanche Beacon

This is exactly what its name suggests and is your best hope if you are buried in an avalanche.

Avalanche Rescue Device

For $500 to $900 you can have what amounts to a backpack or vest with an airbag that deploys if you are caught in an avalanche, only it will inflate with a cylinder of compressed air instead of high explosives.

It is designed to help "float" you to the surface and/or create an air pocket around your head.

Just bring an extra cylinder if you have friends like mine who will set it off hoping to get some good video footage.

Cold Weather Clothing

To stay away from frostbite, dress in clean, dry, loose, temperature-appropriate layers. Dirty or sweaty clothing does not insulate as well as clean clothing. Take the time to remove or adjust layers of clothing as necessary as you heat up, cool down and change your activity level.

Do not let yourself sweat or get too cold, but it is better to be a little bit cold than to start sweating. Zippers, pit vents and the use of different materials best suited to different zones of the body are signs that the garment manufacturer is on the right track. I will list layers for extreme cold weather. In less extreme cold, you will need fewer layers.

- Skivvy Roll: the skivvy roll is a compact way to carry an extra clean, dry base layer. Roll up a wicking cold-weather base-layer and use your socks to compress it into a sausage shape. This way you have a complete change of base layer in a compact package. They

are also great for backpacking trips, expeditions and long range patrols. Having clean, dry clothing next to your skin each day greatly improves your comfort and hygiene without the weight and bulk of carrying a complete change of clothing for every day, which you will not need anyway.

- Insulated Boots with removable liners
- Gaiters
- Wicking Sock Liners
- Cold Weather Boot Socks
- Wicking Base Layer
- Insulating Mid Layer
- Wind Pants and Shirt
- Breathable, Water Resistant Outer Layer
- Sunglasses
- Balaclava
- Glove Liners
- Mittens or Gloves Insulating Mid Layer:
- Water Resistant Mitten or Glove Shells

Monitor Your Status and Improve Your Situation

Use your thermometers. Regularly assess your environment and the status of your body, mind & spirit. Do not forget anyone in your charge.

How to Check for Signs of Hypothermia Onset with the Inuit Hypothermia Test:

Touch your thumb to your pinky, then your ring finger, then your middle finger and then your index finger. With the onset and progression of hypothermia, you notice a progressive loss of range of motion in your fingers. First you will be unable to touch your thumb and pinky, then

ring finger, then index finger and so on. This is no reason to panic if you have limited mobility, but it is an indicator that it is time to warm up.

To warm up, jump up and down, do jumping jacks, shake blood into your hands and stamp it into your feet. This will circulate warm blood from your core back into your extremities, restoring fine motor coordination and buying you some time to build a fire, use a hand warmer or heat some soup to sip.

If your clothing gets wet and you are unable to build a fire, remove a layer of clothing and allow it to freeze solid. Then beat it and break the ice crystals free that form in the fabric. This will remove moisture from the clothing, increasing the amount of insulation it provides.

Beware of Cold Sinks

Cold Sinks are areas where cold air seeks the lowest point and pools. They can be as much as 60 degrees colder than the surrounding terrain. A cold sink in Cache County, UT recorded the coldest temperature in the lower 48: -67 degrees F. Make camp in a cold sink and you will be miserable at the very least.

Avalanche Survival

- If you trigger it, try to stay uphill of as much of it as possible.
- If you can make it to a tree, grab on and hold on.
- Just like you would with an attacker, move off the "line of attack" by moving perpendicular to the direction of the avalanche.
- Ditch your pack. Just like in water, you want to "float" to the top and don't want pack strapped to you.
- "Swim" toward the surface.
- As you go under, reach on hand as far as you can toward daylight. Hopefully, it will breach the surface and someone will see it or you will have a fighting chance. Protect your face with your other hand.

- If your face is buried, and you do not sustain a fatal injury in the avalanche, do your best to carve out an air pocket around your face as early on as possible, but at this point, you may be unable to move at all. If you are able to create an air pocket or you are lucky enough to land in one, it will buy you between half an hour and an hour.
- If buried and you cannot dig yourself out, conserve your air and energy. The depth to which you get buried has no bearing on the likelihood of your survival. What matters is how long until you are found. Most victims dies of hypoxia. If you are found in less than 15 minutes, you have over a 90% chance of being alive when you are dug out. Another 15 minutes and that figure drops to only 30%, so if you are the praying type, you know what to do. If you are not, you will more than likely change your mind at that point, just like is said of people in foxholes. But the fact of the matter is, if you did not invest in an avalanche beacon and bring someone with you, you have already made your choice and you are about to pay the price.

I read a story recently of a couple of kids who built a snow cave in a parking lot to practice their survival skills. A snow plow came by and caved it in on them. Fortunately they lived and even got to keep their toes, but they were not snowmobiling on a steep mountain in the Rockies. They were in their own neighborhood in the city.

That is the point with emergency preparedness. If you know that something is going happen before hand, it is not really an emergency. You could be thrown into a situation at any time. You could be flying over a mountain range like a certain soccer team in 1972, you could be on an over-the pole flight across the pond, or you could be in a parking lot in your own neighborhood.

The point is that you are a whole lot more likely to freeze to death than to be overrun by zombies.