

SURVIVAL GUIDE



**PRACTICAL,
CONCISE
HELP FOR
SURVIVING
IN THE
WILDERNESS
OR OTHER
ADVERSE
CONDITIONS**



INTRODUCTION

This booklet will provide many suggestions that can help you and your companions survive in many adverse situations whether simply lost, storm bound in snow, wind or rain, overdue without adequate supplies, suffering exposure or any number of other occasions where “to survive” it necessarily becomes your lone objective. This booklet is not designed to address all first aid requirements. The need is acknowledged and I would recommend courses with the Red Cross, St Johns ambulance Society, as well as many books on the subject in addition to your own well stocked first aid kit, whether it is a commercial aid kit, or your own made up one.

Survival is largely a matter of common sense – perhaps the most important thing you can carry with you. With it, and a little help, you can assure warmth, shelter, water and food – the four most important aspects to survival. As you read the tips and suggestions in this booklet, think about the situations you could find yourself in, think about how you could put the survival knowledge you have just learnt from this course, and the tips you have been given, for a safe and pleasant trip in the outback.

Barry Clark.

SURVIVAL PSYCHOLOGY

Don't Panic! Survival is a frame of mind. As you start to recognize the seriousness of your situation, concern for the unfamiliar and unknown can weaken your ability to think and plan. A knowledge that nature is neither for you or against you is basic in setting aside this initial fear. Keep in mind that while you cannot control your circumstances, you can control how you operate and live within them.

Perhaps the most important requirement for survival is to accept immediately the reality of the situation and act accordingly. Knowledge of survival information will contribute to a feeling of confidence which is important in handling fear and panic.



Factors Affecting Survival

Being aware of the following conditions or threats can aid you in recognizing them in a survival situation and in turn will allow you to determine the degree of threat, and to develop a plan to either overcome or, at least, successfully deal with the problem.

- Fear** Fear is normal but it can affect your ability to survive. You must recognize your fears and, using common sense, channel the energy that fear generates into becoming more alert, aware, and motivated.
- Pain** Pain is nature's way of making you pay attention to something wrong with you. But nature also has a way of buffering pain if you are too busy to pay immediate attention to the injury. The point is to remember a special effort must, and can, be made to keep hopes up, remain positive, and keep working for survival.
- Cold** Cold can be an especially insidious enemy because it will reduce your ability to think and can tend to lower your will to do anything. For these reasons maintaining or getting warm is the first priority in survival situations.
- Thirst** Even when thirst isn't extreme it can dull your mind. For this reason, it is important to start planning activities to forage for water even though you can survive in most situations for several days without. If water is available, don't deprive yourself of it. As with pain and hunger, you can will yourself not to thirst - but such deprivation can lead to confusion which can in turn lead to dehydration.
- Hunger** Hunger is fourth on the list of priorities because in most situations you can survive several weeks without eating. However, like thirst, the more immediate danger is the effect it can have on the mind – lessening your ability for rational thought. Both thirst and hunger increase your susceptibility to the effects of cold, pain and fear.

Fatigue

When you are tired you don't think clearly and can become careless. Over exertion is the usual cause of fatigue but you should also recognize other factors which can contribute to fatigue such as feelings of hopelessness, dissatisfaction, lack of goal orientation, frustration and boredom. Extreme fatigue can destroy the desire to survive. One must deal with the fatigue (rest) and the cause where one of the above factors may be involved.

Boredom & Loneliness

When nothing happens and rescue isn't imminent, feelings of boredom and loneliness can creep up on you. Your reaction can often be more of a problem to your survival than any physical factors such as pain, cold, thirst or hunger. Boredom and loneliness can be overcome by:

*Avoiding panic and staying calm/patient

*Keeping busy - mentally and physically

Methods to achieve both of these objectives in countering loneliness and boredom are:

1. Make decisions and act on them.
2. Thinking positively and planning solutions to problems.

Examples might be extending/improving shelter, gathering fuel, foraging for edibles, signal devices, maintaining a diary, etc.

STAY PUT

Perhaps the number one rule of surviving in the wilderness is to stay put. Unless you are **absolutely** certain of your directions and have ample daylight hours, you will be far better off spending the time preparing for an overnight or extended stay where you are. And your chance of being found - faster - is much improved compared to your being on the move. Incidentally, rule no. 2 and 3 are stay put and stay put!

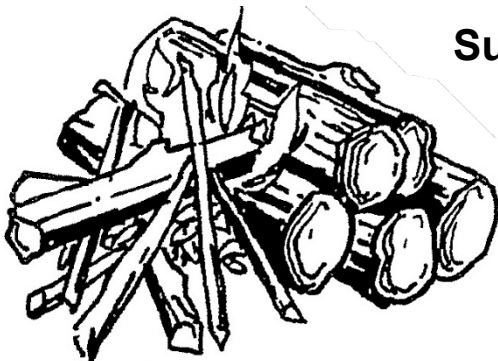
4 PRIMARY SURVIVAL CONCERNS

A. Warmth

As soon as you recognize you are in a survival situation, you should assess your available equipment and start planning how you can maintain or gain warmth. Even on a warm summer evening this is the primary concern. If the weather suddenly changes and darkness falls, you may not be able to prepare a fire, and even when conditions are not adverse, a fire will provide you with a sense of security and comfort. A fire also provides light and smoke that can attract attention.

Location - Choose a location away from overhanging branches in the open where it can be seen from above. And clear a space free from twigs, grass, etc. (dig a pit, if possible.) You don't want to risk a forest fire to contend with as well. You will also want to be thinking ahead to shelter, since location will again be a factor.

Preparation - Gather a supply of tinder, such as dry twigs (break from trees rather than picking up possibly damp twigs on the ground) shredded birch bark, pine needles, etc. You may be carrying tinder in the form of cotton balls, steel wool or paper, and 2 fire sticks are provided in your kit. And, have a good stock of dry wood available to add.



Sustaining - Remember you will use an armful of wood an hour on average. The time to gather it is when there is still light.

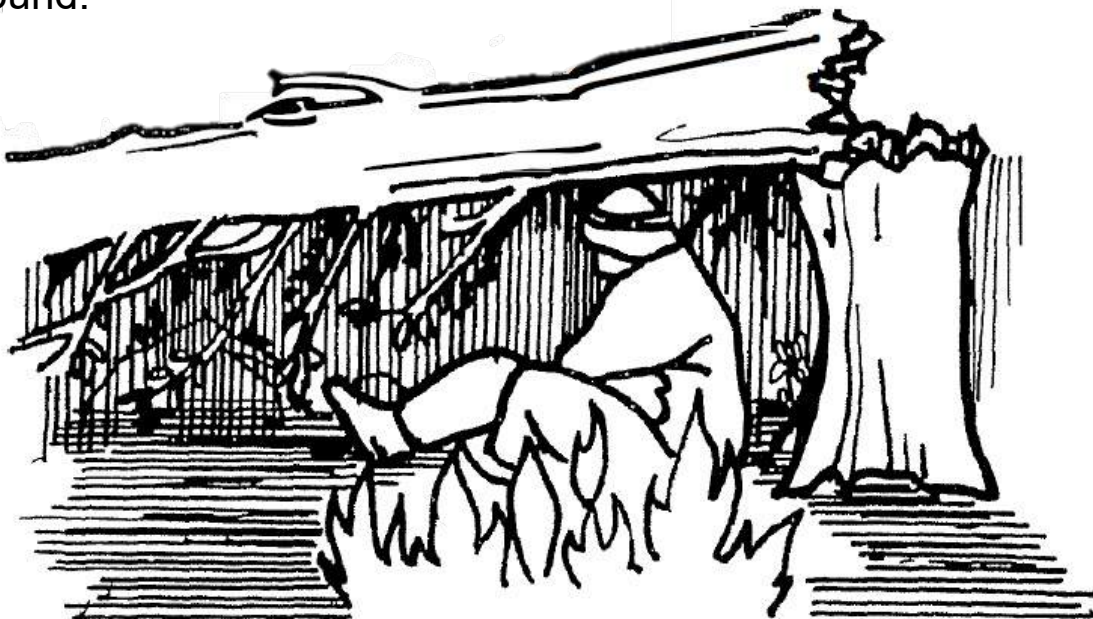
Once your fire is burning well, you can utilize some green wood or even slightly damp wood, if necessary. But, don't smother your fire. It isn't necessary to cut your wood, just lay a length across the fire and as it burns through push the remaining pieces into the fire.

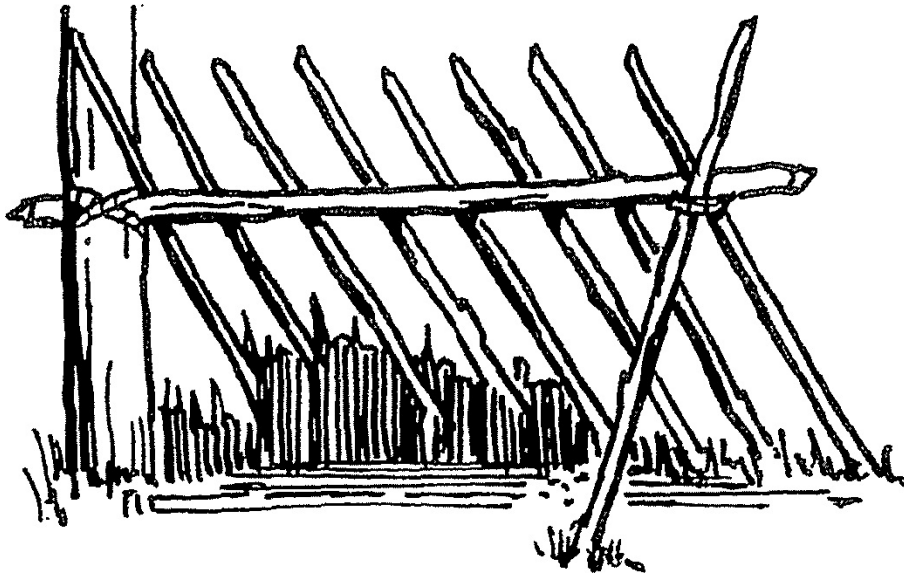
B. Shelter

Once you have a fire going, turn your attention to planning a shelter. Shelter will provide protection from the wind, snow, or rain and, properly planned, will trap heat from your fire.

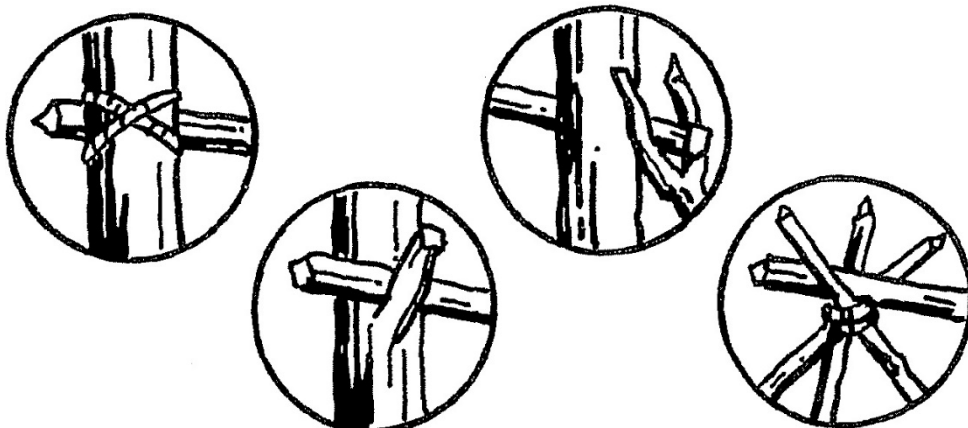
Location - Instinctively, a low sheltered area may have appeal. **Don't!** Choose a site on high ground where you are visible, wind can clear insects and you will avoid the dampness held in low areas. In winter, of course, you should find the most protected (but convenient) location available.

Fallen Tree Shelter - The easiest form of shelter to find will likely be a fallen tree with ample space between the trunk and the ground. Often all you need to do to clear a shelter under the tree is to remove a few branches and lean them against the trunk to act as a crude form of roof. Boughs from nearby trees may also be added. Be careful not to remove any branches that may be supporting the tree above the ground. A bed of boughs at least 8 in (20 cm) thick will insulate you from the cold, damp ground.





Lean-to Shelter - A lean-to is simple to build. Locate two trees that are 6-8 ft (2-2.5 m) apart. Fasten a sturdy pole to the two trees by using some cord from your pack, or hang the pole from the junctions where branches meet the tree trunk. The support pole should be 5-6 ft (1.7-2 m) above the ground. Next, lean light poles about 10 ft (3 m) in length against the support pole. Space them about 18 in (0.5 m) apart. Make the slope steep enough to shed water, but leave room enough inside. This rough frame can then be thatched with spruce or pine boughs, long grass, reeds or a sheet of plastic. Always start at the bottom and work up. Spruce boughs placed with their butt ends pointing up will shed the rain like a shingled roof. Be sure to close off the ends of your shelter. Make a bed of spruce or pine boughs or grass. Along with your fire, you can be quite comfortable. For maximum warmth, build your fire across the entire open side of the shelter.

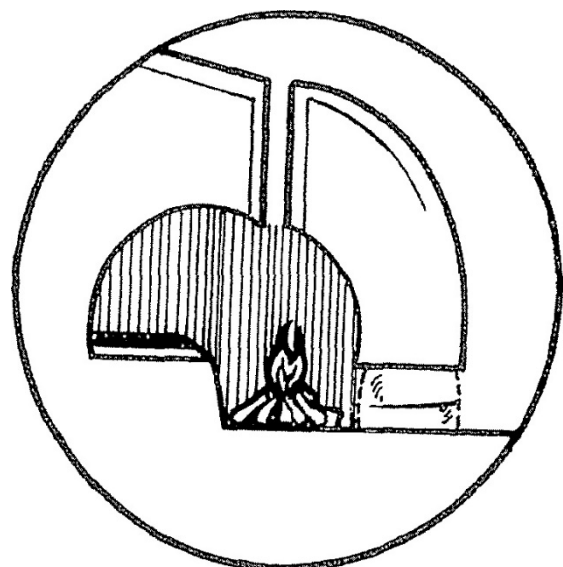


Snow Shelters - Snow is an excellent insulator and in extreme weather conditions may provide the best type of shelter available. The major disadvantage in building snow shelters is the problem of getting wet, especially if you're not dressed for digging in the snow. Also, your task is made much easier if you have something to dig with, preferably a shovel, a snowshoe covered with a trash bag or something similar. Some practical experience in building snow shelters beforehand is also valuable.

Snow Cave - You can burrow into a large snow bank along a stream bank, rock outcrop or other place where the snow is deep enough. The finished snow shelter should be large enough to sit up in, so you may have to pile snow to achieve a mound big enough to tunnel into. Try to keep as dry as possible.

When shaping a snow cave, arch the roof inside so moisture from melting snow or condensation will run down the sides of the cave instead of dripping on you. The shelter should be shallow enough and the roof thin enough for you to break through and stand up if a cave-in occurs. You can block the entrance at night with a snow block or anything handy but leave a small ventilation hole. Besides the vent hole in the entrance way, a vent must also be poked through the roof. Keep the vent holes open by poking a stick through them occasionally.

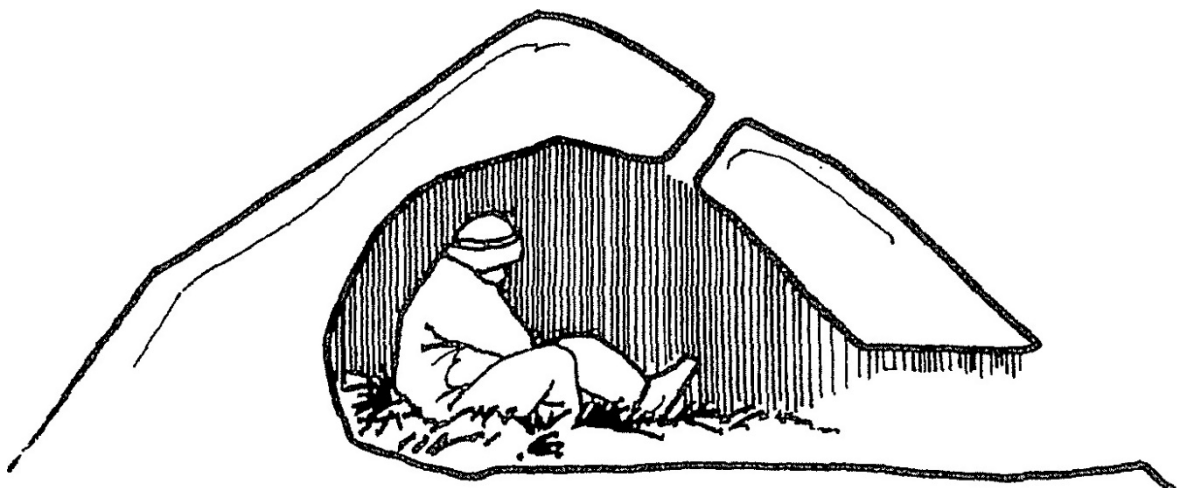
Chop a roomy shelf, or build one, to act as a sleeping platform. Cover it with whatever material you can find; boughs, grass, reeds, etc. This shelf will keep you up off of the cold floor. The closer you are to the ceiling, the warmer you will be.



Quin-zhee - The quin-zhee is similar to the snow cave with two important differences: you build the snow bank yourself, and a quin-zhee is stronger if properly built. Pile snow into a mound about 5 ft (1.5 m) high and about 7-8 ft (2-2.5 m) wide at the base. If you don't have anything that can act as a scoop use your mitten-covered hands. Make sure the snow has been well mixed from top to ground; this is the key to building a strong quin-zhee.

Allow the pile to harden for fifteen minutes or so. The colder the weather, the faster it will harden. After it has hardened, tunnel into the base on the leeward side. Make every attempt to stay dry. Hollow out the mound, keeping the walls about 10 in (25 cm) thick at the base and at least 6 in (15 cm) thick at the ceiling. Poke a small stick through the walls occasionally to measure the thickness.

Keep the entrance as small as possible. Block it when you're inside with the snow block but leave a small air vent. Also poke a small vent in the ceiling. Build a sleeping bench up off the floor and cover it with boughs, reeds or anything else handy to insulate you from below. Candles will provide light and some warmth.



Staying Dry - If your clothes are wet, you'd better try to dry them. Wet clothing will result in a loss of heat and energy that you cannot afford to lose, especially in cold weather.

Clothes may be dried by the fire, but never place them nearer to the fire than you can comfortably hold your hand. Never leave clothes unattended when they are drying near the fire. Turn them occasionally. Dry your outer clothing first, then take your underwear off, put on your outer clothing and dry your underwear. Put your underwear back on when it is dry.

It is most important to keep your feet and hands dry. Dry socks, mitts and boots by suspending them carefully over the fire. If socks and mitts are not too wet, they can be dried by placing them under your clothing overnight.

To avoid becoming damp through perspiration, dress lightly while you are working hard and put on heavier clothing when you are sitting around idle. If you are working with a parka on, leave the hood down and leave it open around the neck to allow excess heat and moisture to escape. In very cold weather, damp clothes can be left to freeze and the moisture beaten out of them when still frozen.

C. Water

The average person can survive without water for a considerable time. And, because most rescues will occur within 48 hours, water need not be a major priority. As has already been discussed in this booklet, the greater danger from thirst is the psychological factor.

Expected periods of survival without water will vary with daily temperatures and level of exertion. Staying put in the shade will extend survival time significantly. Examples in days of survival times without water under varying conditions:

Shade temperature	50 F/10C	90F/33C	120F/49C
Resting in shade	12 days	8-1/2 days	2-1/2 days
Walking at night	9 days	6 days	1 day

With 4 pints/litres of water at 50 F/10 C, survival time would be extended one day. At 120 F/49 C it would require 8 pints/litres to extend life by one day.

Some key points to remember:

1. Drink when thirsty. Life will not be appreciably increased by rationing limited quantities of water.
2. Do not gulp. Swish water around in the mouth and swallow slowly.
3. Avoid unnecessary activity and seek shade.
4. Limit food and salt intake if water is limited. Do not eat if water isn't available.

Foraging for water

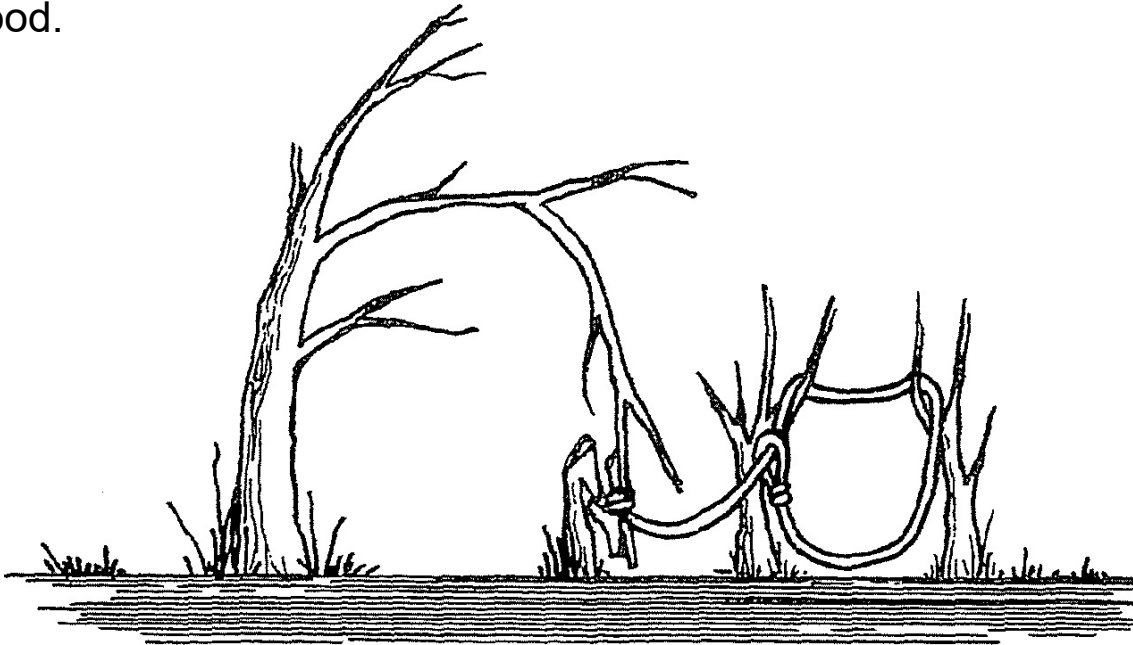
- Be prepared to capture water from sudden rainstorms. Line a hole in the ground with plastic.
- Look for signs of underground water such as dry stream beds, gullies, animal diggings, lush vegetation. Dig a hole and wait for it to fill with water.
- Trees and plants can contain water.
- Strain water from mud.
- Melt snow or ice. (Never place directly in your mouth as this will cause dehydration and loss of body heat).
- Dew will form on cold shiny objects at night. Dig a one-foot hole, line with plastic sheeting and pile with clean stones on top.
- Squeeze centre pulp from cactus.

Purification - Always purify water you have foraged by boiling or using purification tablets or filters intended for the purpose. Never use run off water from glaciers.

It is important you do not allow your search for water to tire you and add to dehydration, particularly in a hot dry climate. You will be better off by conserving energy and body fluids.

D. Food

Hunger, like thirst, is a greater threat psychologically than it is physically. Depending on circumstances, such as temperature and physical condition, you can go as long as a month without food.



The real benefit in foraging for food, as with water, is in avoiding boredom and maintaining a positive attitude by planning and doing activities which hopefully will improve your situation. The search for food is a low priority. You should use your time and energy sparingly in this endeavour.

Almost everything that walks, crawls, flies, or swims is edible. Your degree of hunger may very well dictate your menu! Snares for small animals or birds can be set and fish may be caught using hook and line.

While a great deal of plant life is edible, there are plants which are poisonous. Unless you know beyond a doubt a plant is edible, don't eat it. This is especially true with fungi.

A final thought on food - this could be a great opportunity to start that diet - food isn't an essential in the short term.

HYPOTHERMIA

While generally considered a first aid subject, hypothermia can be one of the most dangerous threats to survival. As such, it needs to be addressed specifically.

Simply defined, hypothermia is the condition occurring when the inner temperature of the body falls to a level at which vital organs slow and ultimately cease to function. Because this can occur in relatively mild conditions, it is a danger at any time of the year. Most hypothermia occurs at temperatures between 30 and 50 F (-1-10C) when conditions are wet and windy.

It is most important that hypothermia be recognized as early as possible. Fortunately, symptoms are easily recognized and preventive measures will avoid a tragedy.

Symptoms:

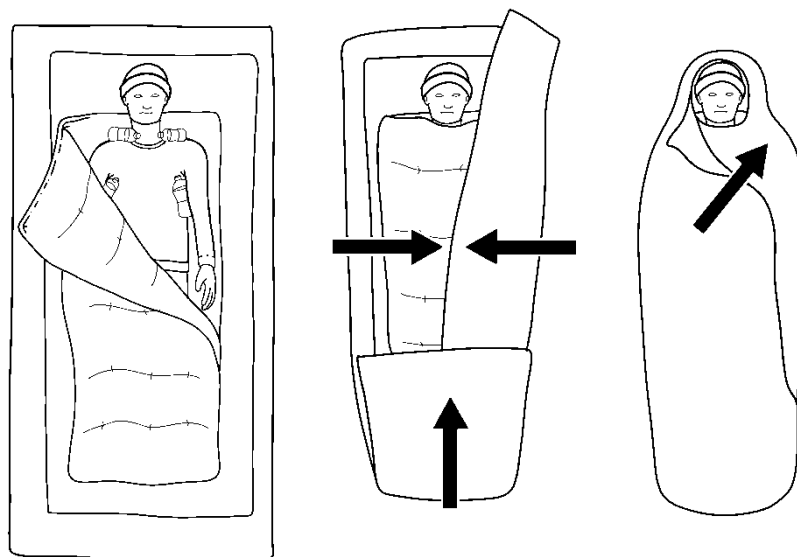
Hypothermia is a progressive illness with symptoms following a defined sequence as the core temperature drops:

1. You feel cold and have to exercise to keep warm.
2. You start to shiver and feel numb.
3. Shivering becomes intense and uncontrollable.
4. Shivering becomes violent. Speaking is difficult. Thinking becomes sluggish and your mind starts to wander.
5. Shivering decreases and muscles start to stiffen. Muscle co-ordination becomes difficult and movements become erratic and jerky. Appreciation of the seriousness of the situation is vague or lacking. However, you may still maintain the appearance of knowing where you are and what is going on.
6. You become irrational – lose control with your environment and drift into a stupor. Pulse and respiration are slowed.

7. No response to the spoken word. You fall into unconsciousness. Most reflexes cease to function and heartbeat becomes erratic.
8. Heart and lung control centres of the brain stop functioning.

Treatment

1. As soon as symptoms are recognized, remove the victim from the source - get him out of the cold, wind and rain.
2. Remove wet clothes; replace with warm dry clothes, if possible, and place in a sleeping bag or wrap in warm blankets, etc.
3. If conscious, consider warm drinks. No alcohol!
4. If semi-conscious or worse, try to keep the victim awake.
5. If required, use heated rocks (well wrapped) or blankets. Warm the core-body trunk area. Do not stimulate the extremities.
6. Do not allow movement until the entire body has returned to normal or near normal temperature.



SIGNALLING

A number of methods exist to attract attention. As soon as initial priorities (e.g. warmth, shelter) are seen to, you should plan all the feasible means you have so no delay will occur.

Signal Fires - Prepare sights in clear areas well in advance and protect from rain. Plan for smoke by day and bright flame at night. Green branches, moss or leaves will increase smoke. Three fires in a 100 ft. triangle would be ideal.

Mirror – On a clear day mirror signals can be seen for up to 10 miles (16 km) at ground level and much farther in the air. Heliographs (signal mirrors) are available commercially. Instructions are included but you should practice with them.

Lights - If using lights, the internationally recognized signal is 3 flashes, one minute's pause, 3 more flashes and so on.

Flags - Fly flags from the highest point possible and try to contrast from the background. A flag with a ball above or below signals distress.

Sound - A shrill whistle blast will carry further than the voice. Use 3 blasts, wait a minute and repeat. Gun shots can also signal distress, but remember shots heard in daylight hours are likely to be mistaken for hunters. After dark fire 3 shot groups, waiting 10-15 minutes and then repeat. Yelling should be discouraged unless rescuers are close by. The voice doesn't travel very far and it can be exhausting, in addition to creating panic.

Ground Markings - In snow, on the desert or open meadows create a large "X" by tramping, piling rocks or brush. Try and contrast it with the surrounding terrain.

Waving - Use brightly coloured jackets, reflectors, anything that contrasts and can create movement which will attract the eye of searchers.

SURVIVAL KIT

CONTENTS and USES

Emergency Blanket - Provides immediate shelter against wind and rain; effectively; "holds in" body heat; along with cord can form a tent or lean-to style shelter. Waved in the air it can also be an excellent signal device.

Matches - Matches must be struck on the striker surface. Once a fire is going, keep it going!

Whistle - An internationally recognized distress signal (3 blasts). Also useful in maintaining contact within a group.

Firesticks - Most easily ignited by breaking in two. One stick will burn 5-7 minutes. Non-toxic and waterproof. An excellent kindling and can be used for light or signals.

Lightstick - The chemical lightstick can be useful when preparing shelter after dark, finding fuel, signalling, as well as the psychological benefit of having light.

Pad and Pencil - Keep a diary of activities; leave notes should you move from your location; plan activities/responsibilities.

Dressings & Bandages - Use for minor cuts and scrapes. Can also be used for patching shelters, clothing, etc.

Compass - An emergency compass that will provide rough directions. A compass reading and wilderness navigation course are recommended.

Poncho - Provides protection from rain & wind but can also be incorporated into construction of a temporary shelter.

Signal Mirror - In clear weather it's possibly the best signal device with a range of miles.

Trail Tape - Useful in leaving a trail for rescuers or as a guide to return by when foraging for water, fuel, etc. It can also be used as a lashing material when constructing shelter.

3'1 m Snare Wire - While intended for trapping birds or small game, it can be used in lashing as well.

Razor Blades - Will substitute as a knife for preparing food, skinning game, or building shelter.

Needle & Thread - Useful in constructing shelter, repairing clothing, etc.

Safety Pins - May be used to replace buttons, mend clothing, etc.

12' /3.7m Nylon Rope - Use in lashing or as a ridge line for tent shelter.

30' /9m Fish Line - Along with hooks and sinkers included for catching fish in any nearby lake or stream. Also, can be used to suspend the emergency blanket or poncho as shelter and for lashing small boughs in place for shelter.

Waterproof Pouch – Provides a watertight storage and transport bag for the contents of your kit. It also can be used for carrying and storing water.

35' /10.6m Nylon Cord – Ideal for lashing a frame for a lean-to or even as fishing line. Can be a ridge line for tent shelter.

PVC Bag – The display bag can be kept in the kit for use in gathering food, carrying water, etc.

Candle – Can provide light and heat in confined areas.

Your Survival Guide – This booklet, besides providing suggestions we hope you will have studied in advance of an emergency, can also provide a means of getting a fire started.

REMEMBER BEFORE YOU LEAVE BE SURE SOMEONE KNOWS WHERE YOU ARE GOING, YOUR ROUTE AND WHEN YOU ARE EXPECTED BACK AND CHECK IN WHEN YOU GET BACK.



Suggested Additions in Personalizing your Survival Kit:

Personal Medication

Water Purification Tablets

Flint & Steel Fire Starter

Knife

Eyeglass Repair Kit

Insect Repellent

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