

A survival situation is the absence of all, or most, of the equipment and conditions you expect in a routine outdoor experience. Injuries, accidents, severe weather, human error, or quite often, a combination of several factors lead people into survival situations. It is when you are left outside with only the contents of your pockets that you are faced with the real life or death struggle of survival.

Basic survival skills will come into pay if you become lost or separated from your group. The first thing to consider in situations like these is to **S.T.O.P.** the actions you take should be based upon your immediate needs.

- Stop and stay calm.
 Establish a base and a warming fire (which can have a calming effect)
- Think, and take actions to reduce your immediate risks

 If it's getting dark, prepare to spend the night, If you are wet, get dry and warm as soon as possible.
- Observe your situation and evaluate your options
 Look at the risks you face and think about how you got where you are and what the best solution might be.
- Plan and act to ensure survival

Health and survival

Regardless of how good your equipment is, or how skilful you are, people faced with a survival situation still have themselves to deal with. The psychological reactions to the stresses of survival often make them unable to make use of their available resources of equipment, experience, and skill.

By neglecting aspects of your mental or physical health in an emergency, you limit your ability to think and act. As a potential leader of a group of people faced with survival, your health may be the key to their survival as well.

The psychology of survival

Fear – is a very normal reaction for people faced with an emergency which threatens any of their important needs. Fear influences your behaviour, and thus your chances for survival. Acceptance of fear as a natural reaction to a threatening situation will lead to purposeful rather than random behaviour, and in this way will greatly increase your chances for survival. Fear and confidence are not opposites – a reasonable person can acknowledge fear and still remain confident in their ability to overcome it.

How people react to fear depends more on themselves than on the situation. Physical strength may not be as effective a tool against fear as a sense of humour, or a cool head under pressure. Some fears can lead directly to a sense of helplessness and hopelessness. Fear must be recognized, lived with, and if possible, used to your to advantage by channelling your excess energy created by

adrenaline towards the tasks at hand. You can fight this by identifying each fear, understanding it, and coping with it.

Fear of the unknown – "What is out there? What's going to happen to me? Where is it safe?" By accepting this fear as normal you can remain calm and begin to answer each question. Do not criticize yourself for having critical or negative thoughts, just concentrate on, and resolve each new question or problem calmly and confidently.

Fear of your own weakness – leads to a pessimistic attitude and then giving up. Every person can do something, no matter how bad the situation, to make that situation better for themselves and their teammates. Have confidence in your equipment and your skill to use it.

Compare the current problem with successful solutions you have used (or learned about) in the past to get through something similar.

Fear of discomfort – is what causes people to continue into bad storm to get back to the warmth and security of base camp, instead of stopping and making a safe, albeit uncomfortable, emergency shelter for the night before they are soaked, exhausted and hypothermic.

Fear of being alone – even the most independent people can feel the effects of loneliness unless steps are taken to adapt to, and deal with the isolation. A strong imagination and sense of humour will help.

Phobias about the dark, or animals, etc. – people with phobias can easily imagine their worst nightmares coming true, especially in the stressful survival situation. Again, approach each fear with an action plan and an understanding of this fear in context with the whole situation – should your fear of snakes cost you your life?

Fear of suffering or death – actually might be your strongest ally in survival. If you always keep it in your mind that unless you act you can die, you can use this energy to focus yourself in tough times. By accepting this fear, and not dwelling on it, you can rate your plans on whether a specific action is going to keep you alive or not. Have confidence in your teammates', your leader(s) and your rescuers' abilities to get you out.

"Courage is not about being free from fear. Only a fool is fearless. Courage is the ability to do the right thing, and do it well, even when you are afraid.".

Team behaviour in survival

Chances of surviving depend largely on a team's ability to organise themselves for activity, and cooperate in setting and achieving goals. An emergency does not weld a crew together; rather, the more difficult and disordered the situation, the greater are the disorganized team's problems. This is particularly true in the face of common danger, when fear can result in panic rather than concentration. A team that is well trained and prepared will cope better with the prolonged stress of a survival situation. Communication between members, sharing tasks, and planning concurrent activities are keys to organization. In well-organized teams, people excel in the job that most closely fits their personal qualifications — assign tasks conscientiously.

Morale – high team morale has many advantages:

- a. individuals feel strengthened and protected since they realize that their survival depends on others whom they trust;
- b. the team can meet failure with greater persistency; and
- c. the team can formulate goals to help each other face the future.

High morale must come from internal cohesiveness and not merely through external pressures. Under certain conditions, moods and attitudes become wildly contagious. Panic often may be prevented by conscious, well-planned organization and leadership on the basis of delegated or shared responsibility, combined with faith in the group and realization of the need for cooperation. **Reaction speed** – is key to a team's success. By reacting immediately to new hazards, a team will stay occupied (defence against boredom), and will be better able to cope with new problems later.

Staying on top of the situation will allow the team to plan, set goals, and assist survival – a team that is constantly overwhelmed will have no time to plan.

SEVEN ENEMIES OF SURVIVAL

Pain, cold, thirst, hunger, fatigue, boredom and loneliness everyone has experienced these, but few have known them where they have threatened their survival. In the survival situation, the feelings of pain, cold, etc. are no different from those experienced elsewhere; they are only more severe and more dangerous. With these feelings, as with fear, the more you know about them and their effects on you, the better you will be able to control them, rather than letting them control you.

Pain – is your body's way of making you pay attention to something that is wrong with you. Hard or desperate work will sometimes cover pain for a while, but pain is unlikely to cease on its own. Carry out appropriate first aid to the best of your ability. Pain that is ongoing will seriously impact your ability to remain positive and get required work

done. So deal with it right away. Some injuries or illnesses may not be curable, and you can expect your situation to be uncomfortable. Keep your mind occupied with the important work, and allow enough time for rest and recuperation.

Cold – is a much greater threat to survival than it sounds. It not only lowers your ability to think, but it also tends to lower your will to do anything but get warm again. Even a few degrees drop in your body temperature can affect your ability to make reasonable decisions. Fire and shelter are your primary methods of keeping warm, in any season – you will not have the energy to work to stay warm for any real length of time.

Thirst – even when thirst is not extreme, it can dull your mind. As with pain and cold, lack of water will slowly degrade your ability to survive. Diarrhoea caused by micro-organisms in unsafe water can slowly dehydrate you and lead to future difficulties, but do not abstain from drinking out of fear. Make a point of drinking regularly

Hunger – is dangerous because of the effects it can have on the mind, primarily in lessening the person's ability for rational thought. Both thirst and hunger increase a person's susceptibility to the weakening effects of cold, pain and fear. Solid food is not a real necessity until a week or more has passed – this is not to say that you would not eat given the chance. It is usually the fear of starving to death – a fear that manifests itself long before the risk of starvation is real – that leads people to making poor decisions about safe or appropriate food.

Fatigue – even a very moderate amount of fatigue can reduce mental ability. Fatigue can make you careless it becomes increasingly easy to adopt the feeling of just not caring. This is one of the biggest dangers in survival. The confused notion that fatigue and energy use are directly related may be responsible for many deaths in survival situations.

Certainly, there is a real danger of over-exertion, but fatigue may actually be due to hopelessness, lack of a goal, dissatisfaction, frustration or boredom. Fatigue may represent an escape from a situation that has become too difficult. If you recognize the dangers of a situation, you can often summon the strength to go on.

Boredom and Loneliness – are two of the toughest enemies of survival. They are dangerous mainly because they are unexpected. When nothing happens; when something is expected and does not come off; when you must stay still, quiet, and alone, these feelings creep up on you. Keep yourself busy, even if it means creating luxuries around your shelter, fishing or setting traps, etc.

Basic Survival Skills

Survival techniques are a-plenty, but regardless of which specific one, there are 5 Basic Survival Skills that everyone who ventures into the Outdoors should understand and be fully aware of their potential need and use. One of the most important elements to survival is between your ears, your brain. Of all survival techniques, the most important is DO NOT PANIC, use your wits and practice all elements of the 5 basic survival skills before you may need to rely on them.

Survival priority list

- **First Aid** –Treat all injuries to the best of your ability. Any health problems left untreated can severely affect your ability to carry out all the other actions required for survival. Complete first aid also includes observing and analysing current or future dangers.
- **Fire** is a lifesaver! It will provide an important source of heat, assist in providing safe drinking water, and will be a primary tool for signalling your location to rescuers. Even under wet conditions you can start a fire. Gather what you think is enough firewood, then times that by four, that should be enough. Start collecting wood far from your site, then as you grow weaker, collect from closer in.
- Shelter is what is going to keep you alive for any extended period of time. You need your shelter to be waterproof, windproof and as insulated as possible. Select a safe location, protected from the elements, but close to a clearing for your signal, and as close as you can to fresh water.
- **Signals** a clearing is the best place to make a signal, anything can be used to make your signal. Toilet paper, rocks, fire and smoke, a mirror, piles of branches, patterns in the snow, etc. Place objects in the form of a triangle as this is a universal distress signal. Bright fire during the night and smoky fire during the day are your best signals.
- Water you can only survive for three days without water. Heating the water to drink will
 increase your body core temperature in poor conditions. Always melt snow before ingesting
 as it uses more fluid for your mouth to melt snow than a mouthful of snow provides.
 Remember the rules for safe drinking water do not make yourself sick by drinking water
 from a suspicious source.
- **Food** you can go a long time without food if you are conserving your energy and body heat. You cannot rely on the availability of large game, or your ability to catch it to provide food. In some locations plants with nutritional value may be sparse. Choose food that will give you more food energy than the energy you will expend trying to get it.

In most cases the simplest of food sources is the best. Some of the simple things to eat are:

- a. snails (lakeshores, forests and fields boil them);
 bugs, ants, grubs, grasshoppers and maggots (under rocks, logs, near fields wash them before boiling, or roasting); and
- b. plants: rose hips are good (eat the flesh and get rid of the seeds and bristles), cattails (eat the roots of them).

There are many other edible things in the wilderness. You can enhance your awareness through proper research, preparation and cooking.

Assemble a survival kit

You should carry a compact survival kit when travelling or working in the wilderness. The tools, supplies and medical items in your kit may save your life in an emergency. Carry your kit in a pocket – it is possible that you will become separated from your pack (voluntarily or not) in an emergency. When you are selecting a container for your kit ask yourself these questions:

- a. will it float?
- b. is it sturdy?
- c. is it water proof?
- d. is it compact, lightweight and manageable?
- e. can I get into it in a hurry with cold hands?
- f. Is it a bright colour so I can find it?

Personal survival kit

Each survival kit will reflect the needs of the user. Fill yours with items that you know you will use, and alter the contents to reflect the expected environment you will be travelling in. This is a list of

items that you can select from to fill your kit. Add to this list when you discover another useful item. There is no need to carry all of these items:

- 1. matches at least 20, the kind that will strike anywhere and are waterproof it is a good idea to store matches in a separate container inside you kit. Put the striker from the match box in the container with them. 35mm film canisters are good for this. Break matches in half to save space if required;
- 2. candles tea light or small candles;
- 3. snare wire #18 gauge brass wire 5m;
- 4. strong thin cord 10m;
- 5. fishing gear 5m of 15 lbs line, bare hooks, a lead weight and a cork;
- 6. medical kit iodine, plasters of various sizes, roll bandage, small medical scissors, adhesive tape and dressing, moleskin or second skin for blisters, water purification tabs;
- 7. small safety pins;
- 8. plastic bags 2 large orange garbage bags for shelter and signalling, 2 small bags for water collection;
- 9. food concentrated soup, tea, coffee, sugar, hard candy, or OXO cubes;
- 10. aluminum foil 3 m (to bake or to make a temporary pot);
- 11. fuel tablets or fire starters sealed in plastic to avoid contamination of the rest of your kit;
- 12. alternate to matches for fire starting magnesium stick or flint and steel;
- 13. mirror unbreakable and shatter proof (not glass), for signalling;
- 14. small simple compass;
- 15. emergency blanket;
- 16. spare flashlight bulb and batteries;
- 17. several sizes of needles and 2m strong thread;
- 18. flexible saw wire type, oiled before storage;
- 19. crayon (will write anywhere) and paper;
- 20. personal hygiene items dental floss, baking soda for teeth brushing, a small piece of soap; and
- 21. duct tape (wrapped around crayon or outside of container).

Note: if you can carry only a bare minimum, carry flint and steel, a signalling device (whistle), protection for your body from the elements (garbage bags), a container to heat water, quick energy food and plasters. In winter you can dip string in paraffin wax and wrap this around your matches. This will make the match burn longer and will help with starting fires.

Dealing with wild critters

Insects Bees, Hornets, and Wasps

We are all familiar with bees, wasps, and hornets. They come in many varieties and have a wide diversity of habits and habitats. You recognize bees by their hairy and usually thick body, while the wasps, hornets, and yellow jackets have more slender, nearly hairless, bodies. Some bees, such as honeybees, live in colonies. They may be either domesticated or living wild in caves or hollow trees. You may find other bees, such as carpenter bees, in individual nest holes in wood, or in the ground, like bumblebees. The main danger from bees is their barbed stinger located on their abdomens. When the bee stings you, it rips its stinger out of its abdomen along with the venom sac, and the bee dies. Except for killer bees, most bees tend to be more docile than wasps, hornets, and yellow jackets that have smooth stingers and are capable of repeated attacks.

Avoidance is the best tactic for self-protection. Watch out for flowers or fruit where bees may be feeding. Be careful of meat-eating yellow jackets when cleaning fish or game. The average person has a relatively minor and temporary reaction to bee stings and recovers in a couple of hours when the pain and headache go away. Those who are allergic to bee venom have severe reactions

including anaphylactic shock, coma, and death. If antihistamine medicine is not available and you cannot find a substitute, an allergy sufferer in a survival situation is in grave danger.

Blood Sucking Insects (mosquitoes and ticks)

Ticks are common in the tropics and temperate regions. They are familiar to most of us. Ticks are small round arachnids with eight legs and can have either a soft or hard body. Ticks require a blood host to survive and reproduce. This makes them dangerous because they spread diseases like Lyme disease, Rocky Mountain spotted fever, encephalitis, and others that can ultimately be disabling or fatal. There is little you can do to treat these diseases once contracted, but time is your ally since they are slow-acting ailments. It takes at least 6 hours of attachment to the host for the tick to transmit the disease organisms. Thus, you have time to thoroughly inspect your body for their presence. Beware of ticks when passing through the thick vegetation they cling to, when cleaning host animals for food, and when gathering natural materials to construct a shelter. Always use insect repellents, if possible.

Small Mammal Issues (rodents and squirrels)

Most of the time small mammals want your food. Keep your foods wrapped up when possible and if not possible keep it in a rodent proof container and hang it much as you would for a bear to keep raccoons out of it.

Personal Hygiene

A high standard of personal hygiene is important in the field because it protects you against illness and promotes good health. Keep yourself, your clothing and your equipment clean and dry. Change your clothes, especially socks and undergarments, regularly. Avoid non-biodegradable soap, and soaps or shampoos with perfumes or strong odours – animals and insects will find you more irresistible than you would probably prefer. Good personal hygiene not only makes you feel better, your teammates will appreciate it too!

Along with these healthy hints:

- a. wash yourself daily completely when possible with clean water or snow. Wash your hands carefully with water and biodegradable soap after dirty work or using the washroom, and before cooking or eating. When water or privacy is restricted wash at least the areas of your body that sweat the most face, neck, feet, armpits and crotch;
- b. keep your hair neat and wash with soap or shampoo at least once a week;
- c. brush your teeth and use floss at least twice a day;
- d. use body powder on your feet and crotch to help avoid chaffing in warm weather. Petroleum jelly will also help protect from chaffing, especially in sensitive areas.
- e. it is very important to go to the washroom regularly. Daily bowel movements will keep your system working properly. A change in activity and diet will often put extra stress on your digestive system, so maintain a healthy diet and drink plenty of fluids. Never try to "hold it" when you have to go, especially at night you will lose more sleep and be more uncomfortable holding it than if you just get up and go!
- f. eat all your food despite whether you think it tastes good or not. Your body requires food for energy;
- g. always treat injuries properly and immediately. Keep dressings and bandages clean and dry. Make sure you inform someone in command of any serious injury. Wounds that will not heal or that get bright red could be infected get medical help immediately.

WASHING

Soap, body oils, sunscreen, grease and fuel residue can all contribute to ground water pollution if you are not careful. Wash these off before swimming, and don't use soap when bathing. To bathe with soap, carry a pot or basin of water at least 100m away from a ground water source, and sponge

bathe. Use as little soap as possible, and ensure the site you select is on high and dry ground. In the winter you can wash using clean snow following the same guidelines.

Call of Nature

Wherever possible you should use an established toilet, outhouse or portable toilet. Your choice for an alternative will depend on your location, the size of the group you are in and the time of year. At your bivouac site, the proper disposal of human waste is important to your health and hygiene, as well as your enjoyment of the outdoors.

In small groups, you should use a "cat-hole" or "one-sit hole." Each person selects a private and dry place and digs a small hole only 15 to 20cm deep. Make your deposit and then mix in the dirt from the hole with a stick, covering everything well.

In a group of more than 12 people, you should dig a latrine for communal use. A hole about 60cm x 60cm, 30 to 60cm deep will work for about 20 people for one or two days. Cut the covering vegetation in one piece and preserve it for covering the hole later. Leave the pile of loose earth and the shovel beside the hole to allow users to spread some dirt over their deposit. When the hole is full to about 15cm from the top, cover it with the remaining dirt and original natural cover.

CONSTRUCT AN IMPROVISED SHELTER

When you construct your shelter in the wilderness you need to consider several factors. Not only do you need protection from wind, precipitation and direct sunlight, you must also consider the effect your activities have on the environment around you.

SELECTING A WILDERNESS SHELTER SITE

To protect yourself and your shelter:

- a. avoid overhanging tree branches and other overhead hazards;
- b. avoid open hilltops you will be exposed to wind and lightning;
- c. avoid depressions where water might pool after rainfall;
- d. orient the opening of your shelter away from the wind; and
- e. never site your shelter on a road or path.

Types of improvised shelters:

- lean-to;
- lopped tree shelter;
- natural shelters;
- ground sheet shelters (EO 403.07); and
- snow shelters.

LEAN-TO LOPPED TREE

When you select a tree, ensure that it is in a safe position, or reinforce its position with a lashing. Never select a tree that would severely injure you if it fell on you when you were sleeping.

SNOW SHELTERS

- **Snow shelters** snow is an excellent insulator. There are several types of shelters you can build, depending on the condition and depth of the snow.
- Snow cave is made from a large snowdrift, or deep snow. Dig into the snow bank or drift, away from the wind so drifting snow will not block the entrance. Dig a small tunnel (less than 1 metre across) directly into the side of the drift about two feet in. Then dig upwards and to the left and right of the door. Create a space high enough to sit up in.

- Quinshees simple and made out of any kind of snow. Clear out the area of snow where you want your shelter 3-4metres. Then put it all back into the center packing it down as you go. You need a well packed pile 1.5 to 2 metres high. Gather several sticks to stick into the top and sides about one foot in; this will be your guide as you are scraping out the inside so you don't go too close to the walls and the roof.
- **Igloos** a traditional snow house. They require a certain degree of skill, teamwork, time, and snow tools to build; and they must have very well packed cold (Arctic) snow.

Tips for snow shelters:

- a. digging a snow shelter will make you very wet! Always have dry clothing set aside for after, and ensure you take breaks for hydration and rest (to keep from overheating and soaking your clothes from the inside) when required;
- b. snow shelters take a long time to build a quinzhee may take as much as 4 hours to make, with only enough room for 3-4 people;
- c. tunnel entrance should lead into the lowest level of the chamber, this is because cold air is heavy and will not rise, so outside air will not spread.;
- d. the inside ceiling should be high enough to provide comfortable sitting space;
- e. sleeping and sitting benches should be higher than highest point of the tunnel entrance this prevents the warm air from slipping out through the door opening;
- f. all sleeping and sitting platforms require insulation sleeping pads, or evergreen boughs in an emergency;
- g. before entering for the night, place a burning candle or small lantern inside, the heat will cause the inner layer of snow to melt and harden strengthening the roof. Extinguish the candle/lantern before sleeping;
- h. the roof must be arched so that the melting drops of water will follow the curved sides and become refrozen:
- i. plan for a door flap, or place your pack in the doorway after you enter;
- j. the roof should be at least one foot thick. Never put any weight on the roof; and
- k. make two ventilation holes about 10cm across, one near the door and the second will be one in the roof. Do not let them close as you may suffocate.

"Only those who have had the experience can know what a sense of physical and spiritual excitement comes to those who turn their face away from [civilization and] towards the unknown."