

THE FIRST AID KIT

What you carry in your own kit is very much down to personal preference but your choice should reflect the fact that it must be small, lightweight and waterproof. It must also be positioned in your rucksack where it would easily be available should an emergency situation arise.

As an absolute minimum you should carry the following items:

- Large Sterile Dressings
- Plasters
- Medium Sterile Dressings
- Latex or Plastic Gloves
- Triangular Bandage
- Personal Medication
- Non-adherent Dressing Pads
- Crepe Bandage

Everything else you bring with you is there to make your life easier. For this reason, some of the items listed below may be communally carried among the group and shared at the necessary times:

- Sterile Wipes
- Needle
- Sterile Eye Pad
- 'Second-Skin' felt
- Sticking Tape / Micropore
- Antiseptic Cream
- Foil Space Blanket
- Antihistamine Cream
- Painkillers / Paracetamol
- Insect Repellent
- Scissors
- Sunblock
- Tweezers
- After-sun Cream
- Safety Pins

WOUNDS & BLEEDING

TYPES OF WOUND

There are a few different types of wound that could be experienced during an expedition.

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| Clean Cut (Incision) | Caused by a sharp edge such as a knife or broken glass. Bleeding will often be heavy. |
| Skin Tear (Laceration) | Caused by ripping the skin over something sharp and rough such as barbed wire. Bleeding will be less profuse, but the risk of infection is high. |
| Graze (Abrasion) | Caused by the scraping off of the top layer of skin, usually by falling on a hard surface. |

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| Bruise (Contusion) | Caused by a blunt blow or punch, breaking small blood vessels below the skins surface. Bruising may often hide more serious injuries such as a sprain or fracture. Occasionally the skin will split, or a bruise will be combined with another type of wound. |
| Puncture Wound | Caused by a sharp, long object entering the body. A good example is somebody standing on a nail. There will be a deep path of internal damage, and infection can be carried deep in to the body. |

What you must always do with every type of wound is to stop any bleeding and keep it clean, preventing infection.

BLEEDING

Generally speaking there are two types; internal or closed- bleeding inside the body and external or open- bleeding outside the body. Both types can be serious, and should be treated promptly, or else shock can develop, leading to death.

INTERNAL BLEEDING

A person falling a distance, such as down a steep slope or a rock falling on a person usually causes this. Although blood may not actually be leaking from the body, it is leaving the circulatory system, which means shock will develop quickly. It is worth remembering that the blood has to go somewhere, and it may be exerting pressure on internal organs causing them to stop working. If a person is bleeding internally they will have the signs and symptoms of shock, often with pain and bruising alongside. The casualty should be treated for shock (see below) and emergency procedures to get them off the hillside should be initiated as soon as possible. The only real way of stopping internal bleeding is by medical professionals with an emergency operation.

EXTERNAL BLEEDING

Because of its nature, external bleeding is easier to detect than internal bleeding, obviously by the fact that sticky red stuff is leaking out of a hole in the body and getting everywhere. This must be stopped or else again shock will develop quickly. The best way to do this is by raising the injured body part above the height of the heart and by applying pressure, either directly, pressing onto the wound with a pad or indirectly, pressing on an artery above the site of the wound. This

should only be attempted if direct pressure has failed to work, and should be done for no longer than ten minutes at a time. Again, if the bleeding is bad, the casualty should be treated for shock and the group should put their emergency procedures in to operation as quickly as possible.

SHOCK

Circulatory shock, (not to be confused with emotional shock) is simply the body's natural response to a loss of body fluids. Fluids can actually be lost through many causes including major burns, dehydration, heavy bleeding, diarrhoea and vomiting, all of which can be experienced on an expedition. Alternatively the body can trick itself into thinking it is losing body fluid by a rapid drop in blood pressure, caused by for example, witnessing an accident to a colleague, all of which could be experienced in the outdoors.

Shock can and will kill in a relative short period of time. For this reason it should always be treated quickly and seriously. If a person is suffering from shock you should notice that their pulse will become rapid, their skin (especially the lips) will appear to be a pale grey-blue in colour, they will often sweat and their skin will feel cool and clammy. The casualty will usually complain of feeling weak, giddy and thirsty. As un-treated shock develops the casualties breathing will become rapid and shallow with a weakening pulse as the body struggles to find the fluid to pump round the body. Before unconsciousness sets in their behaviour will change, appearing restless, confused and even aggressive. They will yawn and gasp for air as the body fights to find enough oxygen to feed the brain. When this fading oxygen supply is no longer strong enough, unconscious sets in and death will follow soon after.

The treatment for shock is to increase the blood supply to the brain, heart and lungs. The most effective way of doing this is while insulating the casualty from the cold, lay them on the ground and raise the legs in the air, taking care if you suspect a fracture. You could prop the legs on a rucksack or two, the higher the raised they are the better. Loosen all tight clothing such as belts braces and collars. Reassure the casualty constantly and seek medical help as quickly as you can, following your emergency plan.

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| <h2>IMMOBILISING CONDITIONS</h2> |
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Hopefully you or your group will never suffer any sort of accident or injury in the countryside. If you do, the majority of conditions are relatively minor ones, and can be dealt with in a fairly short period of time. Unfortunately there are a handful of conditions that can be serious, immobilising the casualty and bringing the event to a standstill with you having to call for outside assistance. Although a rare occurrence, there is still a possibility that they may happen to your group, therefore you should still know how to calmly deal with any situation. As with every day life, it is important to 'contain' the situation that

has arisen and not make it any worse. The whole group is now at risk, not just the injured member. Before you do anything, assess the situation and remember "P.L.P."

PRESERVE LIFE

Yours, your casualties and your groups.
Don't put anyone at any more risk than they are already in.

LIMIT THE WORSENING OF THE CONDITION

Maintain (or restart) the airway, breathing and circulation.
Stop or slow any bleeding.
Don't let anything get worse than it already is.

PROMOTE RECOVERY

This is what you do to make things better.
Position and treat your casualty.
Obtain appropriate external assistance.

SOFT TISSUE INJURIES

Sprains or strains occur when a sudden, sharp movement pulls joints apart. The bones do not break but surrounding and supporting tissue will tear and swell immediately. The most common site for this injury is the ankle, usually when someone 'goes over' on it. When this does happen, it is important to leave the boot on and cool the injured part down, both of which will help ease the pain and reduce swelling. This can be done by putting the injured foot and lower leg, including socks and boot into cool water (stream, river or lake). If the accident occurs when the casualty is not wearing a boot, support the foot and ankle with a figure of eight crepe bandage. The injured member may be able to continue the journey with support and assistance from other members but if the pain does not ease in a reasonable amount of time start the emergency procedures to evacuate them off the hillside.

MAJOR BURNS & SCALDS

Like minor burns and scalds, major ones generally also happen at the campsite and arise from the misuse of cooking stoves. The most important action you must take is one to prevent further burning. Any flames must be put out and the wound must be doused in cool liquid for a minimum of 10 minutes, although in the case of major burning this will be nowhere near enough time. While this is happening, somebody should call for emergency medical assistance. Do not try and remove anything which is stuck to the wound such

as burned clothing and do not apply any lotions, potions or ointments to the burn, they only keep heat in the wound and lengthen recovery time. Providing they are not burned to the skin, try and remove rings, watches etc. as early on as possible, before swelling makes them too tight to remove. While waiting for help to arrive do not burst any blisters which form and try to keep the wound clean, cover over with a clean, preferably sterile item such as a triangular bandage and continually monitor the casualty, treating them for shock if necessary.

BROKEN & DISLOCATED BONES

Let me start by ruling out any myths which are floating around; a break is exactly the same as a fracture, this being the medical term used to describe the injury. That sorted, let me continue ... It can be very difficult or impossible to try and tell the difference between a broken bone and a dislocation (displacement of bone at a joint) without the aid of an x-ray machine and often one injury will accompany another. For this reason, both should be treated in the same way. There are many different types of fractures & dislocations but generally they can be defined as open (outside the skin) or closed (inside the skin). Both types should be dealt with using the same amount of care and respect to reduce pain and further damage to surrounding tissue.

CLOSED FRACTURED ARM OR COLLARBONE

With this injury it may be possible to immobilise and support the arm using a sling and effectively make the casualty a 'walking wounded' member of the group, sharing their kit between members and following your emergency escape route as a complete group to the nearest house or road, where the supervisor and assessor can be contacted. If this is not possible follow the advice given below.

OPEN AND MAJOR FRACTURES (FRACTURED LEGS, SKULL, SPINE & CHEST)

Movement of a person with these types of injuries will do more harm than good. Your prime concern should be to stop any bleeding. Keep the casualty as still as possible, making them comfortable using spare clothes etc. If you suspect a back injury **DO NOT ATTEMPT TO MOVE CASUALTY**, you could paralyse or kill them. Arrangements for the professional evacuation of the casualty should then be made.

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| MINOR CONDITIONS |
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BLISTERS

A blister on your foot is caused by friction from your boot. Trying to prevent a blister occurring in the first place is far better than treating one once it has developed. This can be done by breaking your boots in well before hand and by wearing at least two pairs of socks whilst on the move. If it is safe to do so move around your campsite bear footed, allowing feet to harden in the process. If your foot hurts and you think a blister has developed, stop the group and take a look. If a blister has formed do not to burst it, the liquid inside it will protect the flesh underneath. Whether it has burst already or not cover the affected area with a non-adherent dressing to add padding and continue with the venture.

MINOR CUTS & ABRASIONS

Most small bumps and scrapes can simply be cleaned using water or sterile wipes and covered with a plaster to prevent infection from dirt.

MINOR BURNS & SCALDS

The majority of burns on an expedition happen at the campsite and are caused through misuse of the cooking stove. These burns and scalds, although superficial, can still hurt and leave a scar if not treated properly. Flooding the affected skin, using whatever cold fluid the group have to hand, for minimum of ten minutes should prevent this from happening, covering with a sterile dressing if needs be to keep it clean. Follow the advice given for blisters (above) if one should develop.

HEADACHES

Headaches are common in hot weather, and are often associated with tiredness, so are not uncommon in an expedition setting. The aim of the treatment is to relieve the pain, so it would be a good idea for you to take a standard dose of your normal painkillers, generally one to two paracetamol tablets. If the pain gets worse or persists you should stop the group sit or lie down in the shade, rest, and cool the head with a damp cloth, continuing when the pain subsides.

INSECT BITES & STINGS

Wasp, Bee and Hornet stings are common and can rarely be prevented. If the sting leaves a 'poison sac' in the skin it should be carefully removed, from below the sac using a pair of tweezers.

It is certainly easier to try and prevent insect bites by using insect repellent

and wearing long clothes rather than deal with bites once bit. If you are bit, try not to scratch. Using an antihistamine cream may relieve some itching.

SUNBURN

Failing to cover your skin, especially in hot and sunny weather will lead to your skin becoming burned. Sunburn is superficial with relative short term but painful effects. When you are on the move, especially if there is a breeze, burning to exposed skin will take place un-noticed. This will lead to reddening of the skin, and in severe cases blisters may develop; do you want to carry a rucksack with blisters on your shoulders? Fatigue is not uncommon, nor is an accompanying headache, both of which will lead to a poor nights sleep.

To prevent burning you should simply cover up with loose fitting clothes, protecting your head and neck with a hat. The parts of you that are exposed should be re-protected regularly with a high factor (16+) sun block that should be water-resistant.

SPLINTERS

All you can do if you get a splinter is either live with it or try and remove it. Using a pair of tweezers, gently grasp the splinter as near to the skin as possible and draw it out at the angle it went in. Moistening the skin around the splinter may make it easier to do this.

THE EFFECTS OF HEAT AND COLD

You can almost guarantee that whatever the weather conditions are you will not be happy, if it is sunny the group become hot and agitated and you wish it would cool down, yet when it does and the rain sets in all you want is the sun to come out and dry you off. These changes can happen in a matter of minutes on the hillside and if you are not prepared, the extra changes in heat can be deadly.

HYPOTHERMIA

Hypothermia (also known as exposure) inevitably develops when your internal body temperature drops to below 35 C (normal body temperature is 37 C). Providing you have the proper clothes for the terrain and conditions you will be walking in the threat of hypothermia should be minimal. Unfortunately it catches groups out all to frequently and often leads to death in a mountainous setting.

Body temperature falls when your body is exposed to the cold, but with the added twist of wind and rain this loss of heat will happen many times faster

than normal. Your body will use energy to try and warm you back up and exhaustion will set in. The person who is affected may not realise how bad they are, often the only complaint is about feeling cold, miserable and tired, a common complaint. It is up to the group to recognise the onset often, but not always in the weaker group members. These are best described as appearing drunk; lack of interest or failure to understand simple directions along with irrational, aggressive or violent behaviour and a lack of muscular co-ordination and slurred speech are all common signs and they will be accompanied by pale, cold skin combined with shivering or violent shuddering.

At this stage it is treatable but if nothing is done about it the body will lose all its heat and energy, the person will stop shivering as the breathing and pulse slows down. This will lead to drowsiness, coma and death. Hypothermia is a killer.

Treatment is a simple but slow and lengthy process. Basic emergency procedures should come into practice; stop the group and find shelter. The casualty must be warmed; change any wet clothes if possible for dry ones, and place extra layers on if they are available. When they are dry, wrap them in a space blanket and put them in their survival bag with another person to add extra heat, insulating them both with a rollmat. Warm drinks will help, as will high-energy foods, allowing the body to generate heat. Do not rub the person to warm them; this will only make matters worse.

During the time the group is stopped every member is at risk, you should all keep warm else the whole group could be effected. If necessary start emergency procedures to remove them off the hillside.

EFFECTS OF HEAT

Expeditions involve a lot of hard physical exercise, and even on cold days can cause excessive sweating. When there is a loss of body fluids the demands on the body are high and it will 'shut down' in one of three ways (fainting, heat exhaustion or heat stroke) if it can't cope. This is best prevented through the intake of fluids and salts (via food) whenever possible and by keeping the head and body well covered. Planning a schedule so you travel in the cool of the morning or evening and not in heat of day is a very good idea.

FAINTING

This occurs when there is a brief loss of blood flow to the brain, it is not particularly dangerous, recovery is fairly quick and there is no reason you should not be able to complete the venture. Lying down in shade with your legs raised (to improve the blood flow to the brain) and a cool drink is all you should need to recover. Some people also like their head to be cooled using a damp cloth. In most cases a stop of 30 minutes is ample.

HEAT STROKE & HEAT EXHAUSTION

Both conditions usually affect unfit participants in the heat. Heat exhaustion is where there is a loss of salt and water through sweating and heat stroke is where high levels of heat confuse the brain's 'thermostat' so it fails. In both cases the body becomes overheated and if not treated can be fatal. A headache and light-headedness are early warning signs, as are dizziness and confusion, but often events happen very quickly. If it is treated early recovery is usually rapid.

As with fainting, the casualty should be laid down in the shade with their legs raised. It is important to cool the person down. Remove the outer layer of clothes, wetting the remaining garments. This will help increase evaporation and cool the casualty quicker, as will fanning them with a map. If the casualty is awake they should sip water to replace fluids and treatment should be continued like this until the situation is completely stabilised. In extreme circumstances this may not be possible without medical assistance, in these cases emergency procedures should be set in motion.