

HELP!



FIRST AID IN THE MOUNTAINS



The most dangerous part of your day is probably over when you step out of the car, but it's a fact that most climbers, hill walkers, and mountaineers will at some point confront a serious accident in the hills.

Whether it's a member of your party tripping over, or an unknown climber hitting the deck and spoiling your lunch break, having a basic knowledge of first aid can help you deal with the incident more effectively. Rob Spencer, a Senior Instructor at Plas y Brenin, IFMGA Mountain Guide and First Aid Trainer takes a closer look at the things you know you should know, but always forget to learn.

But what happens before help arrives?
Credit: Ollie Sanders - Plas y Brenin, the
National Mountain Centre

Prevention vs cure

Before digging out that mouldy first aid kit, remember the prevention is better (and usually less painful!) than the cure. The majority of mountain accidents occur when the party is least expecting trouble. When "your guard is down", on the easy descent after a tough walk, relaxing after the rush for the summit, or the abseil after the tough route.

The dramatic incidents might be the ones that make the news, but the Mountain Rescue Council Handbook 2001 contains a couple of enlightening statistics:

68% of call-outs in 2000 were for participants in the "summer hill walking" category

over 50% of accidents were caused by a "slip, trip or stumble" on easy terrain

This rather destroys the notion that only rock climbers or mountaineers are putting themselves at risk in the mountains, and highlights the need for first aid training as a part of your range of skills for tackling the British mountains – whatever your participation level.

The basics

If you are not already familiar with simple first aid then you should to be. The basic ideas are crucial, and in many ways more important than fancy medical procedures as they can be applied immediately, with minimal equipment and a little knowledge. Learn your ABC.

In the mountains

As an outdoor activist, good judgement, prior planning and an appreciation of accident prevention and risk management should always be the priority and will dramatically decrease the odds of

an accident. However accidents do happen, and being in the mountain environment will complicate things. Often the injury itself is relatively minor but climatic conditions and the time needed for evacuation make things exponentially worse.

Ideally you should have a thorough knowledge of basic life-saving skills for use in any environment, combined with a good understanding of how remote first aid differs from the urban variety. First aid practices that make perfect sense in town could be deadly on a mountainside. In a wilderness situation the first aider must take an informed risk rather than simply state "my course tutor said nil by mouth" then watch their patient die.

A classic example of the difference in scenarios is that in urban situations it is common practice to cut away clothing and remove footwear to expose a possible fractured leg for assessment and splinting. But on a windy mountain in sub-zero temperatures this would be risking hypothermia and frostbite. Better to estimate the injury, immobilise the limb and to transport quickly to a warmer, more sheltered spot to allow better treatment.

Cold will always be an issue, much more so than in urban situations, and indeed may have been the cause of the problem – so do make sure you know how to treat hypothermia.

Basic mountain first aid is really all about treating symptoms and not worrying over diagnosis – all you are trying to do is stabilise the casualty and prevent further injuries until the professionals can take over. So, if you can safely immobilise a fracture of say, the elbow and monitor the effectiveness of your handiwork, and as long as the arm is secured in the most comfortable position, your job will be a good one. If however you attempt to diagnose the exact nature of the injury, decide wrongly, that you have a fracture of the radius and treat accordingly in a nice regulation broad arm

Traction - an example of urban vs remote care

Broken limbs are a common injury, and can be particularly daunting to deal with, especially if there is lots of bleeding and/or deformity. A fractured thighbone (femur) is rare, but a particular worry in a remote area as the pain and blood loss from this injury can kill.

During the early First World War the mortality rate for open fracture of the femur was 80%, but within a few years the figure had dropped to less than 10%, all because Hugh Owen Thomas invented the traction splint. Mountain Rescue Teams now carry these splints, or modern alternatives like the Kendricks.

Traction splints work by applying traction to the bone ends to control the muscle spasm, and reduce pressure to the bone ends. By stretching the muscles to their normal length, the blood vessels are also stretched minimising blood loss, pain is also reduced.

Traction is not advised in urban scenarios, but in the mountains where time is a factor it can be a big lifesaver. Consequently many mountaineering doctors have suggested using telescopic ski poles and/or Karrimats to improvise a traction splint (e.g. Dr Dave Hillebrandt's article, issue 214 of High magazine).

The Alphabet

Assess the situation. Is it safe to approach the casualty – are the casualty and the others in a safe position? Safety of the remaining members of the party is paramount; the first thing you can do to help the casualty is to ensure there are no more incidents. For example, a rockfall injures one of your party; check the stability of the slope and the likelihood of further rockfall before rushing in. Then Assess the consciousness level of the casualty. Do they respond to you?

Breathing – is the casualty breathing? You'll need to check the airway and look, listen and feel for breathing. If not – do something now! Can you clear the airway of an obstruction? Do you know how to do rescue breathing?

Circulation – quickly look for signs of severe bleeding. If there is deal with it immediately by applying direct pressure (if practical) and elevating the affected area if possible, blood loss is life threatening! Check for signs of circulation, look for colour and check the pulse – do you know how to? Can you do CPR? (During 2000 there were 51 callouts due to heart attack, with more than one person CPR can keep a victim alive for hours)

It is absolutely crucial that you assess the above three criteria immediately – they are the top priorities in treating a casualty **in that order**, and may make the difference between life and death. Worrying about spinal injuries or other complications is pointless if the casualty isn't breathing or has no heartbeat.

Deformity - check for deformity, swelling, bruising and additional bleeding etc, in a thorough body examination. This will enable you to locate the major sites of injury and assess their severity.

Ensure that the casualty is comfortable. Taking care of the emotional side makes a huge difference particularly if there is going to be a long wait for the emergency services. A bit of TLC goes a long way – talk encouragingly and confidently and keep talking! Hypothermia is always going to be a threat in the mountains, so prevent it from happening. Get the casualty as much clothing and shelter from the elements as possible and keep talking to them.

If the above is all gobbledegook to you then a practical first aid course is strongly recommended. You can enhance your knowledge through reading books, but you won't increase your skills. You only get competent by practising.

sling you could easily cause more harm than good. Don't go looking for extra complications!

Advanced mountain first aid will involve learning how to improvise equipment from your outdoor gear, and understanding what you can and can't do with what is available. This does begin to cross over into the sphere of paramedic skills, but it is surprising what can be improvised by a knowledgeable first aider.

Remote first aid can present some difficult challenges and feel very different to urban first aid. Basics may be the same, but in the mountains it is much more important to understand the whys. This empowers you to react more intelligently, and have the confidence to improvise your way through the many problems that can arise.

First aid kits

Knowledge may be key but a few necessities are needed to enable you to put your skills into practice. These can be obtained in a commercially packed kit, or by purchasing the basics yourself. Always keep these items together in a waterproof bag or box, which lives somewhere accessible in your pack.

There are many books giving advice on what a kit should contain and the important points are covered below. It's easy to get bogged down about

what to carry, and if you covered every eventuality, your first aid kit would never fit in your pack! Think about the injuries you might encounter and then consider how you would cope and what items you would need to hand.

A first aid kit should only include multi-purpose items that you know how to use. Rather than try and pack everything, face up to the fact that in a major incident you won't have enough wound dressings and strapping, but you probably will have spare clothes, rucksack padding etc. Think it through carefully, and you can end up with a small, lightweight yet effective kit that you'll be happy to take anywhere.

High-altitude medicine

Expeditions to high altitude require more specialist medical knowledge and much more equipment. Longer term diagnosis, understanding drug administration, and even some basic surgical skills become important since expedition casualties may be totally reliant on their own doctor for days or even weeks. Again special training is available and should be considered vital for this scenario. If you are going to altitude and don't know the difference between HACE, HAPE, AMS and HAFE then find out! (three are serious, one is just antisocial!)

Further reading

Mountaineering First Aid

The Mountaineers

ISBN No 0-89886-092-X

Wilderness First Aid, NOLS

ISBN No 0-8117-3084-0

Medicine for Mountaineering

The Mountaineers

ISBN No 0-89886-331-7

Expedition Medicine, The RGS

ISBN No 1-86197-040-4

Altitude Illness, Bezruchka

ISBN No 9-781871-890570

First Aid on Mountains, Bollen/BMC

ISBN No 0-903908-71-9

Medical h'bk for walkers & climbers

ISBN No 0-0947-82105

Contacts

Training can be provided by a number of establishments. Also check the BMC courses directory, and magazine adverts.

Plas y Brenin, North Wales

01690 720214

www.pyb.co.uk

Glenmore Lodge, Aviemore

01479 861256

www.glenmorelodge.org.uk

St Johns Ambulance Service

020 7258 3456

www.sja.org.uk

The High Altitude Medicine Guide

www.high-altitude-medicine.com

UIAA Mountain Medicine Centre

www.thebmc.co.uk



Winter Sports Instructor Programmes Canada & New Zealand 2002

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Sven Bruno at Kicking Horse Mountain Resort, B.C. by Henri Georgi



For more information please contact the International School of Sport:

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W: www.theISOS.com

Typical Incidents

A backpacking trip

- A simple cut of the hand following a slip
- A sprained ankle or knee
- Blistered feet
- Asthma attack
- Headache due to dehydration
- Burnt hand due to stove problems

If you have the right skills; some plasters, a roller bandage, blister treatment, inhaler, some painkillers and a bottle of water, roll of tape, and a polythene bag would do the trick for all of these complaints.

An Alpine Climb

- Arm broken by rock fall
- Extensive abrasions due to slip on a dry glacier
- Head injuries due to fall
- Major upper leg injuries, broken & bleeding
- Serious sunburn and snowblindness

The right improvising skills, together with the following would suffice;

A bottle of water, large wound covering (polythene bivi bag), a roll of tape, climbing slings, ski poles, sunblock, sunglasses, a teabag (cold wet tea bags are a great calming compress for irritated eyes!), and some strong oral painkillers. A bivi bag will help keep the casualty warm whilst waiting for the helicopter.