

Expeditions & Fieldwork

● FIRST AID TRAINING

Knowledge of basic first aid is essential for every member of the expedition team. This is best obtained by attending a first aid course. Never rely on having only one trained member on the team - it may be he or she who is injured. Importantly, it has been shown that those trained in first aid are more safety conscious and tend to have fewer accidents than the untrained.

The aims of conventional first aid, as taught by such organisations as the St. John's Ambulance and the British Red Cross, are to prevent further injury and keep the patient alive and comfortable until skilled help arrives.

AIMS OF FIRST AID

- to preserve life
- to prevent further injury
- to promote recovery

On an expedition skilled help may take several days to arrive and, indeed, it is more than likely that the patient will need transporting to that skilled help. So a different philosophy is vital when considering 'expedition' first aid. The basic principles of first aid are more extensive when discussed in relation to an overseas expedition than basic first aid in an industrialised nation.

PRINCIPLES OF FIRST AID

- assess the situation
- make the area safe
- assess the casualty
 - starting with the A B C of resuscitation
 - identify the injury or illness
- give easy, appropriate and adequate treatment in a sensible order of priority
- organise removal of casualty to secondary care where appropriate
- make and pass on a report

The basic principles sound simple. It looks easy in the first aid books to place the unconscious patient on their side so that they do not obstruct their airway but, if the casualty is jammed upright in the front of a Land Rover, it becomes apparent why training is so important. First aid in the field is very different from a book. It looks simple to apply pressure to a gaping wound to stop bleeding or to clear the airway of blood or vomit. Neither can be practised realistically but must be anticipated. Time spent in anticipating and preparing for such problems means that time isn't wasted when literally seconds are vital and basic treatment can be lifesaving.



The first rule of expedition first aid is to prevent further injury to the victim or injury to the rescuers. Expedition team members are more at risk when tired, hungry, cold, wet, hot and frustrated. Good leadership is essential, and it is all too easy to over-extend oneself to achieve an objective. It is also very easy in an emergency situation to throw caution to the wind and rush into a raging torrent, remove one's gloves in sub-zero temperatures or, more likely, dash onto an ill-lit road at night.

The best way to learn First aid is on a course. Below are listed some of the courses available, both basic and more advanced. All members of the expedition team should learn and practise basic first aid.

The core *first aid* skills which can be expected of **all** expedition members should include;

- * scene and casualty assessment
- * resuscitation
- * control of bleeding and the treatment of shock
- * management of fractures and dislocations
- * care of the unconscious casualty
- * safe movement of the injured patient

The Medical Officer, and as many of the rest of the expedition team members as possible, would be advised to attend a specialist course. The advantage of these are that you will learn from experts and get 'hands-on' experience. The disadvantage is that they are more expensive and cover all aspects of emergency procedures when you may only need to know a few. The alternative is for the expedition doctor, if there is one, to select topics related to the environment to be visited, and to spend time with all team members explaining potential problems and getting everyone to practise specialised procedures.

Basic medical skills for expedition medical officers (and for as many of the expedition team members as possible) should include the management of the following:

1. General medical skills

- core first aid skills as above
- Recognition of infection
- Blisters
- Bruises
- Sprains and strains
- Cuts/grazes
- Splinters
- Cramp
- Burns/scalds
- Wound care

2. Illnesses

- Asthma
- Epilepsy
- Diabetes
- Headaches

3. Environmental Problems

- Heat-related illnesses
 - Dehydration,
 - Cramps,
 - Sunburn,
 - Heat exhaustion/stroke
- Cold injuries
 - Frost nip/bite,
 - Hypothermia,
 - Immersion cold injury,
 - Drowning,
 - Non-freezing cold injury (trench foot)
- Altitude problems
- Bites/stings
- Infections
- Recognition of infection
- Malaria
- Leeches

Diarrhoea and its avoidance
HIV and other blood-borne problems

Heart conditions
Eye/ear problems
Dental conditions
Chest/abdominal injuries
Head/spinal injuries
Identifying death

4. Serious Medical Conditions/Serious Injuries

Anaphylaxis
Abdominal emergencies

Having confidence to make the right decision is essential and will only come from attending courses and field experience, do not rely on books and manuals alone.

Pre-expedition planning

For the Medical Officer other areas related to first aid and pre-expedition planning includes:

- Before departure consider what risks you are likely to encounter depending on location, environment and activities. Are there any members of the expedition with special medical needs e.g. diabetes, asthma, etc? Ensure that pre-expedition Medical forms cover Past Medical History including any psychiatric problems, regular medications, allergies, blood group and any details of any pre-trip medical examination performed by the GP are completed.
- Investigate the medical risks in the expedition destination
- Work out an evacuation strategy for ill or injured expedition members and ensure that your insurance covers this.
- Know what skills your members already have. Will other members have access to these skills in the field? Check AGAIN that everyone has a knowledge of basic first aid.

With the above knowledge you can now plan for what you need. Decide what level of medical skills is needed and look carefully at the various courses available and find one to suit your needs.

BEFORE TRAVEL

- Medical risk assessment
- Team members: Medical screening, level of first aid training, emotional and physical, Blood grouping
- Investigate destination risks
- Plan evacuation procedures
- Arrange suitable immunisations and anti-malarials (Blood grouping)
- Compile a suitable expedition medical kit



First aid courses

Listed below are details of a number of organisations that offer first aid courses in the U.K. These range from basic first aid, to those tailored to expeditions and more advanced paramedic training. When deciding on a First Aid course in preparation for becoming an expedition Medical Officer, it is worth comparing the suggested 'basic medical skills' for Expedition Medical Officers with the course syllabus. Please note that this list is not exhaustive. If you know of any other suitable courses which are not listed here, or have more up-to-date information, the EAC would be interested to receive details.

Basic first aid

This is best learnt by attending one of the many standard courses run by the St. Johns Ambulance or the British Red Cross. The cost of such courses varies in different parts of the country and information on course dates and times can be obtained by contacting the local branch offices.

National offices can provide local branch telephone numbers.

British Red Cross +44 (0)870 170 7000

St. Johns Ambulance +44 (0)870 10 40 65

Many ambulance services also provide first aid instruction and details of the ambulance service training units can be found under the First Aid section of the Yellow Pages.

Advanced first aid training

Depending on how far from medical help expedition members will be operating, some will require more advanced training. The EAC has sent representatives on the following courses and found them to be particularly relevant to expedition members and medics.

Wilderness Medical Training (WMT)

WMT offers advanced first aid training for expeditions operating in remote regions overseas, particularly for those expeditions without professional medical support. They train individuals from an array of backgrounds including teachers, leaders, climbers, yachtsmen, vehicle expeditions, field researchers, film crews/media people, solo travellers and military personnel. Residential courses include 'Far From Help' over three days and 'Advanced Medicine for Remote Foreign Travel' over five days; the latter also includes the teaching of invasive techniques (drips, suturing, injections, etc).

Contact: Barry Roberts, Commercial Director WMT, The Coach House, Thorny Bank, Skelsmergh, Kendal, Cumbria LA8 9AW. **T & F:** +44 (0)1539 823 183,

E: office@wildernessmedicaltraining.co.uk

W: www.wildernessmedicaltraining.co.uk.

Medical Expertise

Remote Emergency Care; Medical Expertise, deliver concept based training in first aid and pre hospital care for rural and remote groups. Working with a range of clients, including expedition groups, outdoor instructors and rescue teams, Medical Expertise run practical, tailor made courses. Modules range from 'Basic' to 'Expedition First Aid' and are recognised and approved by the BMC, MLTB, RYA and BCU.



Contact: Expertise House, 9 Cufaude Business Park, Cufaude Lane, Bramley, Hampshire. RG26 5DL **T:** +44 (0)1344 774430, **F:** +44 (0)1344 774480 **W:** www.medical-expertise.co.uk

British Red Cross

The British Red Cross, in addition to basic first aid courses, provide specialist courses for 'Outdoor Activity' and 'Expedition First Aid'. These are modular courses with elements including casualty handling and modules on specific environments including tropics / cold climates, and specialist activities such as caving, mountaineering, water sports and pony trekking.

Contact: British Red Cross, UK Office, 44 Moorfields, London, EC2Y 9AL. **T:** 0870 170 7000 **E:** information@redcross.org.uk **W:** www.redcross.org.uk

Life Support Training Services

LSTS provides modular courses aimed at those going to remote areas. There is a basic course (2 days) and a choice of advanced courses (3 and 5 days). If there is sufficient demand, i.e. an entire expedition, the courses can be arranged at a venue of choice. The courses concentrate on practical skills in as realistic a setting as possible.

Contact: Daryl Wight, Life Support Training Services, 128 MainStreet, Haverigg, Millom, Cumbria LA18 4EY. **T:** +44 (0)1229 772 708, **F:** +44 (0)1229 770 378,

Orion First Aid

Orion are registered with the Health & Safety Executive to deliver first aid courses to industry and commerce. They also provide first aid courses to the general public, specialising in outdoor pursuits and assisting exploration groups. Their instructors come from a wide range of backgrounds including mountain and cave rescue. Courses include: Emergency First Aid, Mountain First Aid, Advanced Mountain First Aid and Expedition Medicine. They also specialise in maritime courses.

Contact: Stan Farrington, Orion First Aid, Brownrigg Guide Road, Hesketh Bank, Nr Preston, Lancs. PR4 6XS. **T & F:** +44 (0)1772 812277. **W:** www.oriontraining.co.uk

Andy Sherriff – Specialist First Aid Training

Training is available to suit all requirements: from basic to highly advanced; high mountains to tropics. Courses are run as a progression of 2 day units. Current courses include: First Aid for Mountaineers and Instructors, Advanced Immediate Care and Expedition Medical Care. All courses meet requirements for National Governing Body Awards. Andy Sherriff is a Health and Safety Executive registered training provider.

Contact: Andy Sherriff, Nyth yr Hebog, Llandyrnog, Denbigh, LL16 4HB, **T:** 01824 790195 **E:** firstaidinfo@btconnect.com, **W:** www.andysherriff.co.uk

Adventure Lifesigns Ltd

Are a provider of Health & Safety Basic Life Support training as well as basic and advanced expedition medicine through the Expedition Care Program. ECP modules are flexible and cater for medically and non-medically qualified personnel. Modules last from 4 hours to 4 days. Courses

.....

include 1 day 'Explorer Medicine' courses, 2 day 'Venturer and Exploration Medicine' courses, 2 day 'Advanced Explorer' courses and 2 day 'ECP Medic' courses.

Contact: The Lifesigns Group, The Granary. Shoelands Farm. Puttenham. Surrey. GU10 1HL. **T:** +44 (0) 1483 810 785 **F:** +44 (0) 1483 810 223 **E:** info@lifesignsgroup.co.uk, **W:** www.lifesignsgroup.co.uk

Adventure First Aid

Adventure First Aid deliver a range of environment specific first aid courses from 1 day basics to 4 day 'Medical Intervention' courses. They deliver courses throughout the UK and Europe. They also provide a consultation service. All courses that are 2+ days meet requirements of most NGB Awards. The 4 day 'Medical Intervention' course covers invasive procedures including IM injections, IV fluid replacement and wound care.

Contact: Guy F. Risdon, Adventure First Aid, 15 Laskeys Heath, Liverton, Devon, TQ12 6PH. **T:** 07844 357 1426, **E:** info@adventurefirstaid.co.uk, **W:** www.adventurefirstaid.co.uk

Fieldskills

Run a one-day 'Emergency First Aid' course for tropical expeditions. This course is aimed at those attending their tropical forest safety course though others are welcome. The course puts an emphasis on issues relating to operating in remote environments and tropical areas, although it does provide an opportunity to refresh and update essential first aid knowledge. Other courses and tailored courses are available on request. Courses are certified by ITC.

Contact: Dominic Hall **T:** 0845 293 7296 **E:** dominic@fieldskills.com **W:** www.fieldskills.com

Marlin Training

Marlin run a variety of first aid courses from basic to custom courses for remote expeditions. They specialise in sports first aid and outdoor first aid courses. Courses are run around the UK and are tailored to specific groups (Climbers, Cavers, Paragliders, Divers, etc).

Outdoor Activities First Aid is an in-depth 2-day course including splinting and spinal injury care skills. Courses meet requirements of the outdoor national bodies. *Expedition First Aid* is a follow-on 2-3 day custom course including knowledge & skills appropriate to the group (e.g. tropical medicine or high altitude problems). This course is run with a MedVac Doctor and encourages pre-course learning to save on lectures and increase skills practice time. All courses focus on developing practical skills using appropriate kits, improvised materials and where appropriate relevant drugs.

Contact: Marlin Training, 38 Lyndhurst Road, Erdington, Birmingham B24 8QS. **T:** 0845 226 7785, **E:** training@outdoorfirstaid.co.uk **W:** www.outdoorfirstaid.co.uk

UK and Ireland Wilderness Emergency Medical Services Institute (WEMSI)

WEMSI provide three distinct training courses; 'Wilderness First Responder' (WFR), 'Wilderness Emergency Medical Technician' (WEMT) and 'Wilderness Physician' (WP). WFR is an intensive six-day course designed for those participating in remote expeditions where evacuation may be complex. WEMT is aimed at practitioners responsible for providing medical

and trauma pre-hospital care in remote environments. WP teaches doctors to provide on-line medical advice by radio and telephone to first-aiders / EMTs in the wilderness environment.

Contact: Jel Coward, Crynllwyn, Brynrcrug, Tywyn, Gwynedd UK LL36 9LH **E:** went@wildmedic.org, **W:** www.wemsi-europe.org

Expedition Medicine

Expedition Medicine provide wilderness medicine courses in the UK and in a number of overseas locations. They provide training for expedition, wilderness, high altitude, mountain, remote and polar medicine practitioners. Courses are suitable for doctors, wilderness EMT's, first responders, nurses and any individual providing medical cover in remote or inhospitable environments. Participants do not need an advanced medical degree to come on these courses but the level of training is pitched at those with a strong medical background and a keen interest in the area. The EML run a 4 day UK course in Keswick, a 5 day polar course in Norway as well as jungle, tropical, desert and diving medicine courses.

Contact: Expedition Medicine, Jubilee House, Fore Street, Thorncombe, Nr Chard, Somerset TA20 4PP. **T:** 01460 30456, **F:** 01460 30444
E: events@expeditionmedicine.co.uk **W:** www.expeditionmedicine.co.uk

First Aid Academy –Outdoor & Expedition First Aid Training

The Academy run courses in Outdoor and Wilderness First Aid. Courses offered include nationally recognised Outdoor Emergency First Aid and Incident Management, with content covered meeting standards of NGB awards. The QCA has accredited this course to the National Qualifications Framework (NQF) at Level 2. In addition, the Academy run courses for a number of ecological consultancies and the Institute for Ecology and Environmental Management.

Contact: Cory Jones on **T:** 08443571426 **E:** info@firstaidacademy.co.uk
W: www.firstaidacademy.co.uk

InterHealth

InterHealth run a range of training and development courses preparing individuals for work in high pressure environmental, both in the UK and internationally. Courses are aimed at humanitarian teams, NGO workers, gap volunteers and expedition leaders. Courses cover topics including resilience building, psychological first aid and team dynamics and conflict management. Course trainers are psychological and occupational health professionals who have considerable experience of working within the charity, humanitarian and mission sectors.

Contact: 111 Westminster Bridge Road, London SE1 7HR **T:** 02079029006
E: training@interhealth.org.uk **W:** www.interhealth.org.uk/training

UK Survival School Ltd,

UK Survival School is a specialist company offering expedition skills, medical, safety and effective survival training for all environments including training courses in the UK as well as training expeditions in Jungle, Desert, Mountain, Arctic Circle and bush environments. Medical & Rescue training courses range from 2 day basic outdoor first aid courses through to 5 day expedition

.....

specific wilderness medical courses and rapid vehicle extrication skills. UK Survival School can also provide longer bespoke training courses upon request including Humanitarian Aid Worker medical courses at their specialist facilities in Hereford. They can also offer courses clinically endorsed by the Royal College of Surgeons (Edinburgh).

Contact: Ged Lawless, Director of Training, The UK Survival School Ltd, 99 East Street, Hereford, HR1 2LW **T:** 01432 376751 **F:** 01432 357113 **W:** www.uksurvivalschool.co.uk

Courses which are more tailored to special requirements

- *British Association of Ski Patrollers (B.A.S.P.).*

BASP provide training in Outdoor First Aid and Ski Rescue.

Contact: Fiona Gunn - 20 Lorn Drive, Glencoe, Argyll, PH49 4HR **T:** 01855 811443 **W:** www.basp.org.uk **E:** firstaid@basp.org.uk

First aid and medical courses are also run by various outdoor adventure and training centres and these should be contacted individually to find out when and what sort of courses they offer.

Centres that run first aid courses include:

Glenmore Lodge, Aviemore	+44 (0)1479 861256
Brathay Hall, Ambleside	+44 (0)1539 433041
Plas-y-Brenin, Capel Curig	+44 (0)1690 720214

Outward Bound Schools	+44 (0)1931 740000 (Operations Manager)
Aberdovey	+44 (0)1654 767464
Loch Eil	+44 (0)13977 72866
Ullswater	+44 (0)17684 86347

Other Expedition Medicine Courses and Seminars

Regular seminars and courses are offered throughout the year by the Royal Society of Tropical Medicine and Hygiene.

Contact: **W:** www.rstmh.org 50 Bedford Square, London, WC1B 3DP **T:** 020 7580 2127 **F:** 020 7436 1389 **E:** mail@rstmh.org

ExpeMed Expedition Medicine Course, Glasgow

Frontline Medical Services organise four-day courses for medical professionals who wish to undertake the role of medical officer on expeditions to remote areas. Courses are suitable for doctors, nurses, dentists and paramedics. The aim is to provide training on all aspects of expedition medicine with emphasis on pre-trip planning, casualty management and casualty evacuation. Instructors have backgrounds in medicine, pre-hospital care, rescue and expedition management. Specialist vehicle extrication is provided by Strathclyde Fire Brigade and a full day of outdoor casualty scenarios and rescue training is provided by Arrochar Mountain Rescue Team.

.....

ExpeMed courses are organised and run by Frontline Medical Services Ltd.

Contact: Course Director: Stephen Hearn FRCSEd Dip IMC. **T:**0141 221 8660
E: expemed@frontlinemedics.com **W:** www.frontlinemedics.com

Mountain and High Altitude Medicine

This is a three day seminar includes lectures and workshops led by international experts in the field of altitude medicine and physiology. More details can be found on the British Mountaineering Council.

Contact: www.thebmc.co.uk

ESSENTIAL READING:

Dunne, J (ed.) (1997) First Aid Manual. *The Authorised Manual of St. John Ambulance, St. Andrews Ambulance Association and the British Red Cross*. Dorling Kindersley Ltd.

Warrell, D & Anderson, S (eds.) (2002) *Expedition Medicine*. Profile Books. ISBN 1 86197 434 5 (out of print but available on the RGS-IBG website www.rgs.org/GOpubs)

Oxford Handbook of Expedition and Wilderness Medicine by Chris Johnson, Sarah Anderson, Jon Dallimore, Shane Winser, and David Warrell (eds.) Oxford University Press. ISBN 978-0-19-929661-3