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

4. Serious Medical Conditions/Serious Injuries
- Anaphylaxis
- Abdominal emergencies
- Heart conditions
- Eye/ear problems
- Dental conditions
- Chest/abdominal injuries
- Head/spinal injuries
- Identifying death

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. 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. Tel & Fax +44 (0)1539 823 183, email office@wildernessmedicaltraining.co.uk Website: www.wildernessmedicaltraining.co.uk.

Medical Expertise
Medical Expertise delivers pre-hospital care training for rural and remote groups. What sets us apart is the quality of our trainers.
We have, over the years worked with many expedition groups and companies, training people to cope with all eventualities in all over the world, including media companies filming snakes, Power Station companies looking at new emergency response systems as well as expeditions all over the world. We aspire to run tailor made courses that fulfill our clients’ needs and provide simple, user friendly solutions to issues. We also run courses through the Rescue Emergency Care Scheme that offers six 2 day modules ranging from Basic to Expedition First Aid courses are recognised and approved by the BMC, MLTB, RYA, BCU.
British Red Cross
The British Red Cross, in addition to Basic First aid courses, provides specialist courses for ‘Outdoor Activity’ and ‘Expedition First Aid’. These are modular courses with specialist elements, including casualty handling and specific modules on the key environments such as the tropics and cold climates, and key activities such as caving, mountaineering, water sports and pony trekking.
Contact: British Red Cross, UK Office, 44 Moorfields, London, EC2Y 9AL. Tel 0870 170 7000

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 your own choice and cost is by arrangement, depending on numbers and venue. 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. Tel +44 (0)1229 772 708, Fax +44 (0)1229 770 378, Mobile 01229 772708.

Orion First Aid
Orion are registered with the Health & Safety Executive to deliver first aid courses to industry and commerce. In addition they also provide first aid courses to the general public specialising in outdoor pursuits and exploration group organisations. Their instructors have wide ranging experience having seen and dealt with frontline trauma injuries, coming from Mountain Rescue, Cave Rescue, and NHS Paramedics. 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. Tel & fax: +44 (0)1772 812277. Website www.oriontraining.co.uk

Andy Sherriff – Specialist First Aid Training
Training is available to suit all requirements, from basic to highly advanced, whether the expedition be to the high mountains or the tropics. Courses are run as a progression of 2 day units. Expedition members can enter the scheme at ‘foundation’ level or higher, depending on experience and existing First Aid training. Current courses include: First Aid for Mountaineers and Instructors, Advanced Immediate Care and Expedition Medical Care. All courses exceed the requirements for National Governing Body Awards (MLTB, BMC, BCU, etc.). The emphasis of training is towards the delegates gaining the necessary skills to provide appropriate medical care in remote locations, using formal and improvised equipment. Andy Sherriff is a Health and Safety Executive registered training provider.
Contact: Andy Sherriff, Nyth yr Hebug, Llandyrnog, Denbigh, LL16 4HB, Tel: 01824 790195, E-Mail: firstaidinfo@btconnect.com, Web: 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 via the Expedition Care Program (ECP) ECP modules are flexible and cater for both medically and non-medically qualified personnel. Modules last from 4 hours to four days.
Courses are as follows: 1 day explorer medicine courses, 2 day exploration medicine courses, 4 day advanced Explorer courses, 2 day ECP Medic Courses.

Contact: Alistair Cole, Adventure Lifesigns, Tournai Hall, Evelyn Woods Road, Aldershot Hampshire, GU11 2LL. Tel: +44 (0)1252 326555 Fax +44 (0)1252 319111, email: info@adventurelifesigns.co.uk, website: www.adventurelifesigns.co.uk

**Adventure First Aid**
Adventure First Aid deliver a range of cost effective environment specific first aid courses ranging from 1 day basics to 4 day medical intervention courses. They operate from the South West of England and deliver courses throughout the country. They have also delivered courses in Spitzbergen, the north of Sweden and Europe. They also provide a Doctor consult service and are happy to advise and talk to you one to one at any time to ensure you get the training and advise you need. We are large enough to have a course running when you need it and small enough to provide you with a one to one service.

All courses that are 2+ days meet and exceed the requirements of most outdoor NGB awards (ML Summer, ML Winter, WGL, SPA, MIA, MIC, British Mountain Guide, IML, BCU, RYA, BOF, Scottish Mountain Bike Leader Award, Local Cave and Mine Leader). Their 4 day Medical intervention course covers invasive procedures including IM injections, IV fluid replacement and wound care with an emphasis on becoming advanced at the basics and being able to work under the remit of a doctor while you are overseas.

Contact: Guy F. Risdon, Adventure First Aid, 15 Laskeys Heath, Liverton, Devon, TQ12 6PH. Tel: 07813 123330, e-mail: info@adventurefirstaid.co.uk, website: 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. It provides the opportunity to: Refresh vital first aid essentials such as CPR and Accident Procedures along with updating yourself with the latest protocols. It is certified by ITC - an HSE approved organisation. It covers the first 8 hours of standard courses such as two day first aid for outdoor workers and First Aid at work. It will provide emphasis on issues related to operating in remote environments and the tropics. Other courses and tailored courses are available on request. Contact: dominic@fieldskills.com or see www.fieldskills.com for further details.

**Marlin Training**
Marlin runs 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. Marlin runs courses around the UK, mostly for groups, and tailors the course to the group (Climbers, Cavers, Paragliders, Divers, etc). Outdoor Activities First Aid is an in-depth 2-day course including splinting and spinal injury care skills. It exceeds the requirements of all outdoor national bodies (e.g MLTB, BMC, BCU, NCA, etc). 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 includes a 300 page full-colour manual, with significant pre-course learning to save on lectures and increase skills practice time on the course.
All courses focus on developing practical skills using appropriate kits, improvised materials and where appropriate relevant drugs. Courses are always assessed continuously with no exams.

Contact: Marlin Training, 38 Lyndhurst Road, Erdington, Birmingham B24 8QS. Tel: 0845 226 7785, e-mail: training@outdoorfirstaid.co.uk, website: www.outdoorfirstaid.co.uk

**UK and Ireland Wilderness Emergency Medical Services Institute and Command Physician courses**

Contact: Jel Coward, Crynllwyn, Bryncrug, Tywyn, Gwynedd UK LL36 9LH Email: wemt@wildmedic.org, Website: www.wildmedic.org, or in the USA website: www.wemsi.org

**Expedition Medicine**

Expedition Medicine is the leading provider of wilderness medicine courses, both here in the UK and also in a number of carefully selected overseas locations. They provide training for expedition, wilderness, high altitude, mountain, remote and polar medicine practitioners.

Suitable for doctors, wilderness EMT's, first responders, nurses and individuals providing medical cover in remote or inhospitable environments far from help.

The training faculty aims to prepare both medical professionals and expedition members for the rigors of providing medical care assistance and leadership in areas far from advanced medical facilities. You do not need an advanced medical degree to come on these courses but the level of training is pitched at participants with a strong medical background and a strong interest in wilderness and remote medicine.

The EML run a 4 day UK course in Keswick, a 5 day Polar course in Norway and a Jungle and Tropical medicine course. Desert, Diving and rescue courses are set to launch 2008.

Contact: Expedition Medicine, Jubilee House, Fore Street, Thorncombe, Nr Chard, Somerset TA20 4PP. Tel 01460 30456, Fax 01460 30444,
Website www.expeditionmedicine.co.uk E-mail events@expeditionmedicine.co.uk

**First Aid Academy –Outdoor & Expedition First Aid Training**

The Academy runs courses specially designed for expedition leaders, teachers leading journeys, Duke of Edinburgh coordinators, Forest School practitioners, GAP year travellers.

At the Academy we deliver the nationally recognised Outdoor Emergency First Aid and Incident Management first aid course. This is a 16 hours course approved by Qualification and Curriculum Authority (QCA). QCA has accredited this course to the National Qualifications Framework (NQF) at Level 2.

Course contents also cover first aid course validation of NGB awards (ML Summer, ML Winter, WGL, SPA, MIA, MIC, British Mountain Guide, IML, BCU, RYA, BOF, Scottish Mountain Bike Leader Award, Local Cave and Mine Leader).

The Academy runs these courses for a number of ecological consultancies and the Institute for Ecology and Environmental Management.

First Aid Academy runs expedition first aid courses for those travelling abroad as GAP students or expedition leaders.

First Aid Academy outdoor first aid courses are practical, fun and innovative.

Contact: Cory Jones on 08443571426 or email info@firstaidacademy.co.uk www.firstaidacademy.co.uk

**UK Survival School Ltd,**
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. They can provide longer bespoke training courses including Humanitarian Aid Worker medical courses upon request at our 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 Tel: 01432 376751, Fax: 01432 357113, www.uksurvivalschool.co.uk

Courses which are more tailored to special requirements

- **The Leuan Jones First Aid Course for Mountaineers.**
  Contact: Gerry Lynch - Tel +44 (0)1248 600589. Mountaineering expeditions might like to attend courses specially run for members of mountain rescue teams (some of the best first aiders in the UK are Mountain Rescue teams).

- **British Association of Ski Patrollers (B.A.S.P.).**
  Contact: Fiona Gunn - Tel: +44 (0)1855 811443, Email: www.bsap.org.uk, Address: 20 Lorn Drive, Glencoe, Argyll, PH49 4HR

  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

**Symposium on Travel Associated Disease**

at Royal Society of tropical Medicine and Hygiene, 50 Bedford Square, London, WC1B 3DP Tel: 020 7580 2127, Fax 020 7436 1389, email: mail@rstmh.org

*Mountain and High Altitude Medicine*
at Plas y Brenin, Capel Curig, Gwynedd, North Wales, 2 - 4 December 2005.
Three days of lectures and workshops led by international experts in the field of altitude medicine and physiology. Course Fee: £460 including course book, all meals and 2 nights accommodation. Further information and applications: Mountain Medicine, c/o Dr P Barry, Department of Child Health, RK Clinical Sciences Building, Leicester Royal Infirmary, Leicester, LE2 7LX. Tel: 07717 467973 or E-mail courseadmin@medex.org.uk

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.
Course Director: Stephen Hearns FRCSEd Dip IMC. For further details phone or fax +44 (0)141 221 8660 or e-mail expemed@frontlinemedics.com, Website: www.frontlinemedics.com
Or Emma Gibbon, Voyage Concepts Ltd, 81-83 Victoria Road, Surbiton, Surrey KT6 4NS Tel: +44 (0)1389 877811

ESSENTIAL READING: