

 **CICERONE**

**POCKET
FIRST AID AND
WILDERNESS MEDICINE**



Drs Jim Duff and Peter Gormly

For more information and to buy this book click here

ISBN:9781852845001

CICERONE

Guides for walkers, trekkers, mountaineers, climbers and cyclists

www.cicerone.co.uk

1. PREVENTION

Prevention is the way of the wise and this chapter covers many aspects of this important skill. Hope for the best, plan for the worst.

Preparation

In general

- Choose your trip to suit the level of fitness and expertise of the weakest member of your group. Check that your equipment is in good condition and suitable for the area and worst conditions you may meet.
- Allow at least 3 months for all pre-trip preparations. Arrange for your vaccinations plus a medical and dental examination. Chronic medical conditions should be thoroughly checked by a doctor who understands the environment you are visiting.
- Take enough of your regular medication for the whole trip, and pack a reserve supply separately. Check if it is heat sensitive and if it will work under the conditions expected (e.g. in very cold conditions, asthma spray may not work) and ask your doctor/pharmacist if it will interact with the drugs in your first aid kit.
- You will need travel insurance, making sure it covers emergency evacuation by helicopter if necessary. In many countries, proof of your ability to pay (insurance cover, credit card number or cash) is needed for prompt emergency air evacuation. Leave the necessary details/cash with your local travel agent, trek company and/or embassy and a copy of all your details with next-of-kin.
- There are many serious infectious diseases worldwide, most of them occurring in tropical or subtropical zones. Owing to global warming, the range of many diseases is spreading. Research and preparation before leaving home are essential and vaccination/prevention is so much better than treatment (see 'Keeping healthy', next page).

Notes for group leaders/doctors

- Talk to anyone with a chronic medical problem and have them explain how to deal with any possible emergencies (e.g. testing a diabetic's blood sugar level, dealing with an asthma attack).
- Give regular briefings to your group and local staff on what to expect on the next stage of the trip.
- Put the **buddy system** in place: pair up everyone with instructions to

EARLY SIGNS OF SOMEONE BECOMING UNWELL (‘GRUMBLE, MUMBLE, STUMBLE, TUMBLE’)

- Loss of appetite, missing meals
- Tiredness, lethargy; coming to camp late and last, going to bed early and being last to get out of bed
- Disturbed sleep
- Personality changes: anxiety, irritability, excitability, anger, aggression, complaining, social withdrawal, depression, loss of concentration, talking more/less
- Clumsiness, staggering, falling over, dropping things, inability to tie shoelaces or pack own bag

Note: changes in behaviour are particularly important when they are ‘out of character’.

keep a careful eye on each other in order to detect early signs of illness or other problems as soon as possible (see box above). Buddies must tell the leader/doctor of their suspicions immediately (and preferably without telling their sick partner, who will often play down their early signs). Leaders, doctors and first-aiders must also have a buddy!

- As the doctor/leader, you should briefly check every member of the group morning, noon and night. Early detection of problems needs a high index of suspicion and a readiness to intervene promptly.
- If someone is not well, stop as soon as it is safe to do so and carefully follow up the problem.
- Hypothermia, heat exhaustion, dehydration and low blood sugar due to lack of food, as well as altitude illness when above 2000m, are common in the wilderness setting. These conditions share some similar symptoms and signs, and may occur together. If one condition is found, check for the others (and check the whole group).
- ‘Quarantine’ anyone suffering from an infectious/contagious disease (see ‘Preventing spread of infection’, below).

Keeping healthy

Preventing spread of infection

Anyone suffering from an infectious/contagious disease (e.g. diarrhoea, hepatitis, eye/wound infection, meningitis, pneumonia, influenza, measles, chickenpox) should be ‘quarantined’ as follows.

Chapter 1: Prevention

- The victim should be kept in a room or tent on their own, keeping their dishes, cutlery, soap and towel separate. They should keep good personal hygiene.
- Anyone having contact with them for treatment or other reasons should:
 - ▶ Use protective/rubber gloves with all cases of infectious diseases including diarrhoea, and especially when cleaning up blood, vomit or stools, or when treating wounds (to protect from blood-borne viruses e.g. hepatitis B & C, HIV).
 - ▶ Wear goggles or sunglasses when attending to wounds, especially when jet washing them.
 - ▶ Use facemasks (the victim should wear one too) in cases of meningitis, pneumonia, influenza, etc.
 - ▶ Wash and dry hands after contact with the victim, their clothes or belongings.
- Check your group, including local staff, for any sign of the illness concerned.

Preventing diarrhoea and food poisoning

Attention to details can dramatically reduce the incidence of these common travellers' scourges.

- Disinfect all drinking water (see box next page).
- Avoid touching your mouth with your hands ('buddies' can rapidly train each other to do this).
- Wash hands frequently and thoroughly with soap and water, alcohol wipes or sanitizer gel. Then dry them thoroughly with clean towel/air dry (drying is as important as washing). This is specially important if working in the kitchen, and after each bowel motion/visit to a toilet (toilets must be fly proof).
- No one with diarrhoea (or other infectious diseases) should be allowed near food preparation, serving or washing up.
- All kitchen utensils must be kept scrupulously clean. Cooks *must* have 2 chopping boards (and knives): one set for preparing meat and fish (this set must be thoroughly washed and scalded after use), and one for all other purposes. Keep flies, cockroaches and rats off prepared food and preparation surfaces.
- Vegetables should be well cooked, or washed and soaked in iodine solution for at least one hour (use double the dose of iodine as per method 2 of water disinfection, below). However carefully prepared, salads may still cause diarrhoea.

DISINFECTING WATER TO MAKE IT DRINKABLE

Disinfecting water means making it drinkable, i.e. free of the germs (viruses, bacteria, protozoa) that cause diarrhoea and other infectious diseases. Select the cleanest water from the best site (e.g. above villages/campsites rather than below, running rather than still). Cloudy, dirty water should be allowed to settle and/or be filtered through material (Millbank bag) or sand before disinfection. Bottled water is safe in principle but beware if it is presented to you with the top taken off!

Method 1: bring water to a rolling boil for one *full* minute. This boiling time is sufficient whatever the altitude. Note: boiling is the only way to disinfect water contaminated with cyclospora.

Method 2: add iodine in any of the following forms:

- commercial iodine drops/tablets
- Lugol's iodine solution (4 drops/litre)
- povi-iodine (6 drops/litre)
- a saturated solution of water on iodine crystals (10ml of saturated solution/litre).

Wait at least 30 minutes (1 hour for povi-iodine). Double treatment times for polluted, very cloudy or cold water. (To get rid of the iodine taste, add a piece of vitamin C tablet the size of a match head, per litre, after the treatment time is up.) Avoid iodine in pregnancy and in overactive thyroid disease. Avoid using for more than 3 months at any one time.

Method 3: use a water purifier that combines a filter *and* a chemical treatment (filters alone do not work).

- Peel fruit, boil fresh milk. Avoid curd, lassi, milk shakes, ice cream, local honey and home brewed beer.
- All cooked food should be eaten immediately. Avoid reheated food (if this cannot be avoided, reheat thoroughly to *minimize* the risk).

Preventing mosquito-borne diseases

Mosquitoes may carry deadly diseases such as malaria, dengue fever, Japanese encephalitis or yellow fever; so avoiding mosquito bites is a vital first-line defence against these fearsome diseases.

Chapter 1: Prevention

- Use repellent containing DEET, sprays, heated repellent tablets and/or light mosquito coils in your rooms on arrival (including the bathroom). Repair damaged mosquito screens/nets with tape.
- In the evening and at night, wear long sleeves, trousers and socks sprayed with repellent.
- Sleep under a good mosquito net (coated with permethrin for extra effect), tucked under your mattress.
- Preventative medications for **malaria**: drug-resistant strains of malaria are common. Before setting off check with a doctor which preventative (doxycycline, Malarone™, chloroquine, paludrine, mefloquine, etc) is best for the area to be visited. These drugs need to be started before entering the malarial zone and should be continued for some time afterwards (1 week for Malarone™; 4 weeks for chloroquine, paludrine, doxycycline and mefloquine). Note: these medications do not guarantee full protection and may have side effects such as rashes, nausea, dizziness, diarrhoea, increased risk of sunburn, vivid dreams and severe mental disturbance (the latter especially with mefloquine). Side effects often appear or get worse at altitude. Avoid scuba diving while taking malaria medications. Pregnant women, children and people whose spleen has been removed should avoid high-risk malarial areas.
- If you have had malaria before, or are going to a remote area, carry a supply of treatment medication (e.g. Riamet™) and a malaria self-test kit.

Preventing other diseases

While these diseases are uncommon in travellers, look them up before travelling in suspect areas.

- **Tick-borne diseases**: ticks are found in marshes, scrub, woodland, mountain meadows and deserts worldwide. Ticks carry a wide range of nasty diseases that can affect humans. Keep ticks off your skin: wear long-sleeve shirts and long trousers tucked into socks, apply insect repellent. Inspect your skin/clothing carefully and frequently (at least 12-hourly). Shower and scrub down after exposure.
- **Schistosomiasis** occurs in parts of China, South Philippines, South America and Africa (especially Lake Malawi) and is caused by a tiny skin-penetrating worm found in fresh water. Infection typically causes a brief rash followed later by a feverish illness and, later still, abdominal and bladder problems. Avoid swimming and wading in fresh water in endemic areas.

- **Strongyloides** and **hookworm** are common in rural, tropical areas of Southeast Asia (including tropical Australia), Africa and South America. They are found in the soil and penetrate the skin of the feet. They can cause serious, chronic illness. Do not go barefoot on damp, bare earth in these regions, especially near villages with poor sanitation.
- **Chagas' disease** occurs in Central and South America and is caused by a beetle-like insect.
- **River blindness** (tropical Central America and Africa) and **sleeping sickness** (tropical sub-Saharan Africa), both transmitted by fly bites.
- **Leishmaniasis** (Amazonia and Africa), transmitted by sandfly bites.

Rabies

Rabies is carried by dogs, monkeys, bats and foxes. While most animals are likely to bite when they are surprised, injured or already fighting, rabid animals often attack without cause and they usually bite more than once, or more than one person. The rabid animal may appear aggressive, carry their tails between their legs, and salivate or foam at the mouth; their eyes may be red. They usually die within 10 days. However there may be none of these signs and the animal may appear to be healthy.

- Do not approach animals too closely. Do not feed or surprise them.
- Pre-exposure vaccination is available and is especially recommended for long-term travellers, residents or those at special risk (but you will still need a non-urgent booster dose if bitten).

Skin problems

- Protect your skin from sun, cold and wind, and do not wash with soap too frequently.
- Prevent and treat chafing, wear well-washed, well-rinsed soft underpants/singlets. Wash, dry and powder the skin with talcum powder, or apply Vaseline™ (petroleum jelly).

Risks in pregnancy

The safest time to travel is during the middle 3 months of a pregnancy. Risks include life-threatening bleeding, miscarriage (20% of pregnancies end this way), tubal (ectopic) pregnancy, premature labour, and infection that can damage the foetus (especially malaria, rubella, hepatitis A and E). As a general rule, do not ascend above 3000m during pregnancy and avoid high-risk malarial areas and scuba diving.

End of extract from

POCKET FIRST AID AND WILDERNESS MEDICINE

For more information and to buy this book click [here](#)

ISBN: 9781852845001

CICERONE

Guides for walkers, trekkers, mountaineers, climbers and cyclists

www.cicerone.co.uk

POCKET FIRST AID AND WILDERNESS MEDICINE

This is an established and highly acclaimed book, now in its tenth edition, and published for the first time by Cicerone.

Venturing into remote areas involves a degree of risk. Minimizing these risks, while feeling confident in your ability to deal with any potential injury or illness, is part of the challenge and satisfaction of wilderness travel.

Pocket First Aid and Wilderness Medicine provides the basic information on a multitude of medical problems, while being small enough to take it with you where you need it.

This book is divided into three parts:

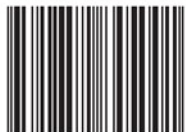
Part 1. THE FUNDAMENTALS covers preparation, prevention, first aid kits and the use of medications and painkillers

Part 2. ACCIDENT AND ILLNESS PROCEDURE explains how to deal with any accident and illness, including emergency treatment for life-threatening situations

Part 3. PROBLEMS AND THEIR TREATMENT covers specific accidents and illnesses

The authors' wilderness experience was gained as mountaineers in Scotland, Norway, the European Alps, New Zealand, the Himalayas and Antarctica. Dr Jim Duff was a member of a mountain rescue team and has more than 30 years' experience of climbing, trekking and teaching wilderness medicine, first aid and leadership in the Himalayas, Australia and East Africa. Dr Peter Gormly has been involved in safety, first aid and health issues in Antarctica for many years.

ISBN 978 1 85284 500 1



9 781852 845001 >



CICERONE

£7.99