



Paragon, #04-15/16, Tel: 6732 5172, Fax: 6732 5173

Website: www.planettraveller.com

E-mail: planet@planettraveller.com



Outdoors Travel Tips



Mountain Sickness & Frostbite

HIGH ALTITUDE OR MOUNTAIN SICKNESS

Mountain sickness may be experienced by travellers going to destination 3,000m (10,000ft) or more above sea level. If ascent to a high altitude is gradual and not more than 3,000m (10,000ft) per day, the body acclimatizes and the traveller will eventually experience no change in general health. However, if a traveller ascends rapidly, such as when flying to a high-altitude city or climbing up a steep mountain, he is more likely to experience the symptoms of benign acute mountain sickness (AMS), such as headaches, nausea, vomiting, malignant acute mountain sickness may develop. The 2 types of malignant AMS include:

- a) High altitude pulmonary oedema (HAPE). Fluid builds up in the lungs. This leads to breathlessness, cough and blueness of lips.
- b) High altitude cerebral oedema (HACE). Fluid accumulates in the brain. This leads to drowsiness, unsteadiness on the feet, abnormal behaviours and even coma.

Treatment

- Evacuate the person to a lower altitude as quickly as possible.
- Drug: Dexamethasone may be used in HAPE & HACE and nifedipine for HAPE.
- Supplemental oxygen.
- Individual pressurization in a portable compression system (e.g. Gamov bag)
- Rest in bed

Prevention

- Gradual ascent with rest days every 3,000ft above 9,000ft (**the motto is: climb high but sleep low**).
- Drugs, such as acetazolamide (Diamox) 250mg tds or dexamethasone 4mg bd or 4mg tds. These drugs prevent or reduce symptoms of AMS and should be started one day before ascent and continued 2-3 days after reaching the high elevation. However, some people taking them have been known to develop AMS. It is, therefore, not advisable to use prophylactic drugs unless rapid ascent is unavoidable (e.g. rescue attempt).

FROSTBITE

Local severe chilling of exposed or poorly insulated tissues (e.g. nose, cheek, chin, ears, hands and feet) can occasionally result in freezing with or without general chilling or hypothermia.

Predisposing factors for frostbite include:

- How cold it is.
- Degree of wind chill
- Amount of tissue at risk. (area exposed, tissue to which blood supply is restricted)

The initial symptoms of frostbite is intense pain in those body parts at risk and at this stage the part must be re-warmed. The part subsequently becomes numb, white and hard to touch because it is frostbitten.

Treatment

- At the painful stage of impending frostbite, the treatment is stop, protect, insulate and re-warm the affected part.
- Take the opportunity to correct any factors that may lead to frostbite by changing wet clothing and consuming a hot meal.
- To avoid instant freezing, avoid touching bare metal with bare hands.
- The patient should be kept in a warm room, where a high temperature 21°C or can be maintained. The affected part should be washed with antiseptic solution (certimide 1%), bandaged lightly and elevated.
- Commence a course of antibiotics such as penicillin and pain killers such as paracetamol.
- Surgery e.g. amputation might be required.

Prevention

- Be aware of the risk of cold, exposed tissue.
- Keep an eye on wind chill index (Air temperature/wind velocity).
- Wear adequate protective clothing - well fitting and build on layer principle - neck and wrist opening recommended so water vapour from sweat can escape.
- Well fitting socks and boots.
- Remember that socks worn for too long may:
 - (a) become wet with condensed sweat and possibly lead to chilling.
 - (b) develop holes and hence lose their insulation value.
 - (c) shrink and thus, blood supply to feet and toes are impeded.