

Traveller Information Sheet



Altitude Sickness.

What is Altitude Sickness?

Altitude sickness is a symptom that travellers may experience while rapidly ascending to heights of 2500 meters or greater.

Anyone who goes to altitude can get altitude sickness. It is primarily related to individual physiology and the rate of ascent. There are three categories of altitude illness:

AMS – Acute Mountain Sickness
HACE – High Altitude Cerebral Edema
HAPE – High Altitude Pulmonary Edema

What are the symptoms?

The diagnosis of Acute Mountain Sickness (AMS) is made when a headache, with any one or more of the following symptoms are present after recent ascent to 2500m (8000ft) or more. Usually altitude sickness appears within 6-48 hours of rapid ascent without acclimatisation.:

- Loss of appetite, nausea or vomiting
- Fatigue or weakness
- Dizziness or light headedness
- Difficulty sleeping

High Altitude Cerebral Edema (HACE) is when the brain swells and stops functioning normally. This can progress rapidly and can be fatal. Symptoms include:

- Extreme fatigue
- Drowsiness
- Confusion
- Loss of coordination

High Altitude Pulmonary Edema (HAPE) is when the lungs swell with fluid. This can occur at the same time as AMS, usually occurs on the second night after ascent, and is more frequent in young, fit travellers. The symptoms include:

- Extreme fatigue
- Breathlessness at rest
- Fast, shallow breathing
- Cough – productive with pink or frothy sputum
- Gurgling or rattling breaths
- Chest tightness or congestion
- Blue / grey lips and or fingertips
- Drowsiness

How do I prevent Altitude Sickness?

Travellers who drive or fly to altitudes of 2500m or greater are at a higher risk of developing altitude sickness than those who walk. This is because the walkers have more time to acclimatise to the height, as their journey takes longer than those who arrive at the altitude in a quick time without any acclimatisation.

Gradual acclimatisation is preferred. Travellers should not attempt to ascend directly to altitudes higher than 3000 meters. If flying directly to a destination at high altitude, travellers should consider the use of medication to prevent altitude sickness.

Travellers should:

- Avoid alcohol and participate only in mild exercise for the first 48 hours.
- If participating in activities at altitudes higher than 3,000 m (9,800 ft) during the day, return to a lower altitude to sleep. Many mountain resorts are located, by design, at lower altitudes ranging from 1,200 to 3,000 m.
- Once at 3,000 m, ascend no higher than 500 meters per day to sleep.
- It is useful to have a high altitude exposure at > 3,000 meters for more than 2 nights within 30 days before a trek, if at all possible.

Treating altitude sickness:

AMS: rest, fluids and analgesia are the best starting options. Seek medical advice if condition deteriorates.

HACE: Immediate descent is the preferred treatment. Delay in descent can be fatal. Descent should be to the last point where the traveller was feeling well. If this is unknown, a descent of 500 – 100 meters is ideal. Other treatment methods include administration of oxygen and dexamethazone.

HAPE: Immediate descent is the preferred treatment. Unless oxygen is available, delay in descent may be fatal. Descent should be to the last elevation where the traveller felt well upon awakening. Affected travellers may need to be carried during the descent as their condition could cause them to feel confused and exhausted.

Medication:

Depending on your travel plans and your current health, medications may be dispensed for you to take as a treatment for AMS.

For prevention of altitude sickness:

Diamox

Dosage is 125 mg every 12 hours, beginning the day before ascent and continuing the first 2 days at altitude, or longer if ascent continues.

It is best avoided by people with history of anaphylaxis to any sulfa. People with history of severe penicillin allergy have occasionally had allergic reactions to diamox. The pediatric dose is 5 mg/kg/day in divided doses, up to 125 mg twice a day.

Dexamethazone

Can be taken if you are allergic to any of the components of diamox. There are a few different dosage recommendations;

The CDC yellow book recommends: Adults: 2 mg every 6 h or 4 mg every 12 h
Paediatric: should not be used for prophylaxis.

Travax reports recommends: Prophylaxis in uncommon situations: 2-4 mg every 8-12 hours. Not for paediatrics.

World Health Organisation recommends: The adult dose is 4 mg every 6 hours.

Dexamethazone is effective for preventing and treating AMS and HACE, and perhaps HAPE as well. Unlike diamox, if the drug is discontinued at altitude before acclimatization, rebound AMS can occur. Dexamethazone is not recommended for use in children.

It must be noted;

- Dexamethazone may increase the need of insulin or oral agents in diabetics.
- Rebound of Acute Mountain Sickness may occur if the medication is discontinued at altitude before acclimatisation.

Dexamethazone is not dispensed by nursing staff at this clinic. An appointment must be made with a general practitioner for a prescription.

References:

World Health Organisation 2014, date viewed 7th April 2014, <http://www.who.int/ith/other_health_risks/environmental_risks/en/>

Shoreland Travax n.d, *Altitude illness*, Shoreland Inc, viewed 7th April 2014, <<https://www.travax.com/scripts/main/topframeset.asp?DocID=medical>>

International Society of Mountain Medicine n.d, *Non physician tutorial altitude medicine*, date viewed 14th December 2011, <http://www.ismmed.org/np_altitude_tutorial.htm accessed 14.12.2011>

Centres for disease control and prevention 2013, 1600 Clifton Rd Atlanta, GA 30333, date viewed 2nd April 2014, <<http://wwwnc.cdc.gov/travel/page/travel-to-high-altitudes>>

Centres for disease control and prevention 2013, 1600 Clifton Rd Atlanta, GA 30333, date viewed 12th April 2014, <<http://wwwnc.cdc.gov/travel/yellowbook/2014/chapter-2-the-pre-travel-consultation/altitude-illness>>