



Casuality: 01982-253629

 $\textbf{Chief Medical Officer Leh}: 01982\text{-}256462 \ / \ 256186$

S.N.M. Hospital: 01982-252014

Ambulance: 108



YOUR HEALTH IS OUR PRIORITY



आ2त् 2023 INDIA

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Ladakh is located at the altitudes ranging from 9,000 to 14,000 feet above sea level. The higher we go the air is thinner and the body has to acclimatize to the decreasing amount of oxygen. Traveling to this altitude in a short time leads to profound effects on the body causing acute mountain sickness in the form of headache, vomiting, breathlessness, sleeplessness and cough. High altitude can cause increase in blood pressure, blood coagulation disorders (intravascular blood coagulation, thrombo-embolism) and pulmonary hypertension.

Failure to acclimatize (due to too rapid ascent to 2000 meters, 6560 feet and above) results in high altitude illness and the symptoms become very frequent above 2500 meters (8200 feet). AMS (acute mountain sickness) may progress to more life threatening high altitude illnesses like cerebral edema (HACE) and pulmonary edema (HAPE), HAPE is a life threatening condition, which may occur alone or in combination with AMS and HACE, Acute illnesses, fever, flue, uncontrolled diabetes, obesity, alcohol intake and exertion increase the risk of developing high altitude sickness.



T SIGNS AND SYMPTOMS OF AMS (ACUTE MOUNTAIN SICKNESS) —

- Symptoms may occur within hours of an ascent.
- Headache (typically throbbing, often worse on bending or lying down), plus one or more of the following symptoms: -
- Tiredness, weakness
- Dizziness, light headedness
- Nausea or vomiting
- Insomnia (sleeplessness), disturbed sleep, frequent waking. Loss of appetite.



FACTS ON HAPE AND HACE (HIGH ALTITUDE CEREBRAL EDEMA)

- Young children may not be able to tell you what is wrong with them, Fussiness, crying, loss of interest or loss of appetite, may be the only signs that they are developing AMS (Acute mountain sickness).
- Passing less urine than usual after an ascent is an early warning that HACE or HAPE is developing, as is a sense of deep inner chill. Listen to your body.
- HAPE is roughly twice as common as HACE (High altitude cerebral edema)
- HAPE is more likely in people with colds, and chest infections and smokers.
- HAPE may appear without any preceding symptoms of AMS (Acute mountain sickness)
- HAPE often comes on after the second night after arrival higher altitude.



HOW TO PREVENT AMS, HACE, AND HAPE BY ACCLIMATIZING WISELY?

- Gain altitude slowly by travelling by road via Srinagar Leh route with night halt in between.
- Never make a night halt at Serchu or Spang, while coming from Manali and try to make in one day to Leh, as these stations are located at high altitudes.
- If you must fly or drive rapidly to Leh, spend a minimum of two nights on your arrival to Leh before ascending.
- o Consider using Diamox (125-250 mg 12 hourly) starting at least one day before your initial ascend, and continue for three days after arrival.
- Avoid exertion and exhaustion while acclimatizing, especially if experiencing symptoms of AMS.
- Drink enough liquid. Diamox is a diuretic; drink more liquid while taking it.
- People who have had AMS should take Diamox preventively during ascent. Diamox will not mask symptoms of AMS.
- If your sleep quality is poor or interrupted by the frequent waking of periodic breathing, take diamox 250 mg at night. DO NOT TAKE SLEEPING PILLS.
- If possible, avoid medications that depress respiration (e.g., sleeping pills, sedatives, strong pain killers and antihistamines) as these will increase the risk of AMS.
- If you are sulpha allergic, don't take diamox, you can take ginko biloba, Tab Ginkocer 40 mg 8 hourly instead.
- Avoid alcohol, excess salts and too much protein.
- Use the buddy system (the I/C will keep an eye on each member of his group for symptoms of AMS).



A useful test to diagnose high altitude cerebral edema is to ask the victim to take ten very small steps, placing the heel of one foot to the toes of the other foot as they go. Reasonably flat ground is necessary and the victim should not be helped or supported. If the victim cannot do this easily, or refuse to cooperate, assume he is suffering from HACE.

🛂 TREATMENT OF HAPE (HIGH ALTITUDE PULMONARY EDEMA) -

- 1. Descend immediately (prompt descend will begin to reverse the symptoms). Descend as low as possible (at least 1000 meters). Carry the PERSON; do not make him walk, as the exertion of walking can make the illness worse. If adequate descent is not possible because of difficult terrain, bad weather evacuation through helicopter is needed and while waiting for helicopter use pressure bag and oxygen.
- 2. Give oxygen 2-4 liters per min.
- 3. Prop the victim up in a semi-reclining position as lying down may make their condition worse.
- 4. Avoid exercise, even walking few steps can make the condition worse.
- 5. Do not leave the victim alone.
- 6. Once evacuated, consult doctor at casualty department SNM Hospital Leh, which is open 24x7.