Diamox speeds up acclimatization to high altitude by helping the kidneys re-adjust the acid/base balance. It also drives the breathing rate, which can slow down at altitude. A dose takes 12 hours to become fully effective. Diamox does NOT mask the onset of altitude illness (AMS, HACE or HAPE), but taking it does not guarantee that altitude illness will not develop.

See Altitude Illness: AMS, HAPE and HACE for a comprehensive description of these conditions.

This medication might be considered a ‘performance enhancing drug’, and while it is not to be used by everyone going to altitude it is useful in the situations spelled out below. Diamox is of vital importance to control the sleep apnea of periodic breathing (intermittently stopping breathing while asleep) which predisposes to HAPE/HACE. Diamox should not replace a correctly graded acclimatization ascent profile with built-in rest days.

Using Diamox at Altitude

There are three situations where Diamox is useful:

1. PREVENTION OF ACUTE MOUNTAIN SICKNESS (AMS)
Diamox reduces the incidence of AMS. However its routine use is NOT recommended. Diamox should be considered when:
  • A person has a history of recurrent altitude illness.
  • A person is suffering from periodic breathing or high altitude insomnia.
  • A slow acclimatizer finds themselves on an inflexible itinerary ie a commercial trek.
  • A rapid height gain is unavoidable, such as:
    - Any ascent of 1000m or more in one day (e.g. rescue missions, or when terrain prevents intermediate camps, or climbing Mt Kilimanjaro - 5896m - without at least 7 nights acclimatizing on the mountain). In this case consider using 125 mg 12-hourly (double the dose if AMS symptoms appear) from the start of the ascent until back below 3000m.
    - Flying or driving rapidly to altitude (e.g. Lhasa 3660m, Leh 3500m, Cuzco 3470m, La Paz 3880m). In this case consider using 125 mg 12-hourly (double the dose if AMS symptoms appear), starting 24 hours before flying and continue for 3 days after arrival or the rest of the time at altitude. This becomes more important if the traveller’s itinerary does not allow for 2 or 3 rest days at the same or lower altitude before further ascent is undertaken.
2. TREATMENT OF ALTITUDE ILLNESS
If a person develops AMS and has a flexible schedule, the best approach is to rest at the same altitude until the symptoms disappear. However, this ideal approach is not always possible due to time, weather, and geographical considerations. So, given that no one should ascend with symptoms of altitude illness, a person with persistent symptoms of mild AMS (despite non-medical treatment such as rest, re-hydration, etc) should consider starting Diamox (125 to 250 mg 12-hourly) as this offers the best chance to safely continue their trek. This situation is often the plight of slow acclimatisers on a tight schedule.
Diamox is used also in the treatment of the more severe forms of altitude illness, i.e., severe AMS, HAPE, and HACE (its effectiveness in HAPE/HACE is debateable.)
See Altitude Illness: AMS, HAPE and HACE for the comprehensive treatment of altitude illness.

3. POOR SLEEP, DISTURBED SLEEP OR PERIODIC BREATHING AT ALTITUDE
Poor sleep is common at altitude. Before considering giving Diamox ('the high altitude sleeping pill'), check the following: is the person warm in their sleeping bag (especially their feet), improve ground insulation, avoiding caffeine, check peeing arrangement and offer reassurance to the anxious.
Having dealt with these factors a trial of Diamox is indicated, especially if the insomnia is associated with periodic breathing (this is recognized by repeated cycles of normal or fast breathing followed by a long pause, then several gasping breaths. The sufferer may wake up feeling like they are suffocating. In the morning they often feel tired and weak. Periodic breathing can disturb the sufferer's tent 'buddy' who should report it).
The dose of Diamox is 125 mg one hour before going to bed. If the problem persists, increase the dose to 250 mg.

Diamox: Allergy and Side Effects
Avoid Diamox if there is a history of a severe allergic reaction to Diamox or sulfa containing medications (mainly the sulphamamide-type antibiotics such as co-trimoxazole, Septrin™, Bactrim™). If the sulfa allergy is mild (rash, diarrhoea, etc), test doses of Diamox (125 mg 12-hourly for 2 days) may be tried well before departure (but do not attempt this if the sulfa allergy is severe!). Most people with mild sulfa allergy can take Diamox.
Common side effects of Diamox include:
• Paraesthesiae (tingling) in lips, fingers, toes or other body parts and a metallic taste when drinking carbonated drinks are the most obvious. Both side effects are milder with lower doses and disappear on stopping the medication.
• Diamox can cause photosensitivity (sunburn more easily) so use hats, gloves, sunscreen.
• Extra urine output. Diamox increase urine output slightly but as people pee more as part of the normal acclimatization process as they ascend this is often blamed on Diamox.
• Rarer side effects include: flushing, headache, dizziness, nausea, diarrhoea, tiredness.