

Preparation for high altitude trekking advice from us to you!

Last week we discussed the physiological changes your body will go through at high altitudes. This week we will be delving into how best to *preparation for high altitude trekking* ascents so you that are able to enjoy and love every moment of the trip.

Preparation for high altitude trekking: The Intro

Before you leave and tackle the mountain you've decided upon there are quite a few things you can do in *preparation for high altitude trekking* for the challenges ahead. These tips and ideas aren't rules and regulations that you must follow, like a specific diet or intense workout program, but rather guidelines which have been tried and tested to help you cope and acclimatize more easily. These guidelines will range from pre-trip preparation, on the mountain tactics, supplementation and exercise/diet best suited for your trip.

So, the sooner I stop talking and get on with it, the sooner you'll be able to get going. Let's starts with the pre-trip preparation and make our way up from there (yes, the pun was intended).



Preparation for high altitude trekking: Pre-trip Preparation

Now there are few things which you can do before leaving that will help with acclimatizing and thereby avoiding the illnesses associated with high altitudes, mainly, Actue Mountain Sickness (AMS), High Altitude Cerebral Edema (HACE) and High Altitude Pulmonary Edema (HAPE).

These tips may not completely prevent them from occurring as they don't discriminate. Your age, gender or fitness doesn't make you more prone. You may have never suffered from any of them on your previous hikes and then on the next one you may. As we all know though – "prevention is better than cure".





Number 1 – Make an appointment to see your doctor

It is important to have a general physical examination prior to your training and trip to assess the various organ systems and your general health, along with recording blood pressure, heart rate, respiratory rate, cholesterol and glucose levels. An important screening test is an FBC or Full Blood Count as this can show if a form of anemia is present which will affect your oxygen carrying capabilities while ascending. Depending on your past and family medical history, along with any bad habits (smoking, alcohol, etc), further tests and examinations may be required to prevent any medical emergencies on your trip or to refill prescriptions for allergies before leaving.

Number 2 – Training

Depending on your fitness level, there should be some form of training or exercise several months prior to leaving. A workout routine or fitness programme should be handled by a professional fitness instructor with training or experience in mountain climbing. There are a few exercises you can do by yourself which will help your body cope and become accustomed to the demands of high altitudes. These include:

- Hiking at local hiking trails with your full gear and backpack
- Swimming, primarily freestyle, as it requires periods without breathing while your head is under water and thus improves the oxygen utilization by the body when undergoing oxygen deprivation.
- Jogging with an elevation mask

Number 3 – Supplementation

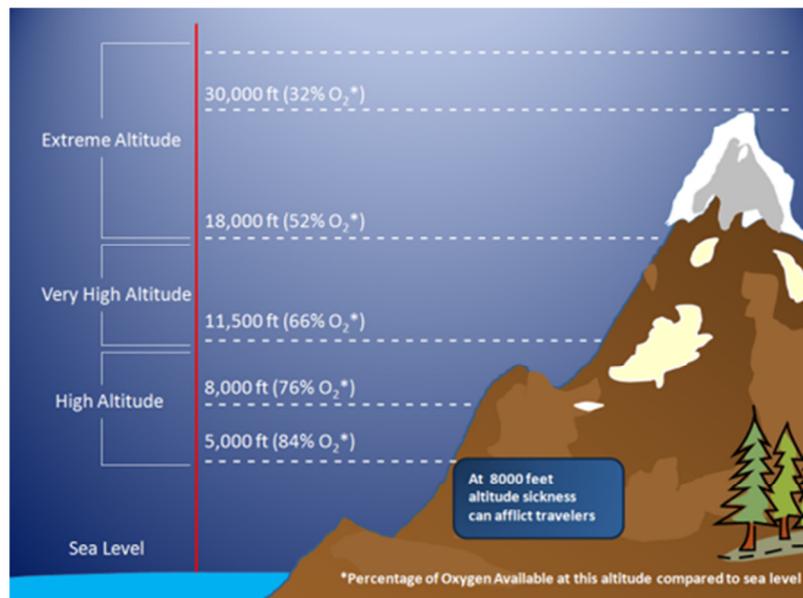
The correct supplements can make the world of difference while training and while on the expedition. The best method is to start ahead of time to build reserves which can be utilized while traveling. These will include:

- A multi-vitamin, preferably one tailored to your gender as males and females have very different requirements at specific times, and are prone to certain illnesses or conditions.
- Iron Supplement, especially for those suffering from iron deficient anemia and women during menstruation either before or while mountaineering. A low dose of iron may also be beneficial in aiding the transportation of oxygen at high altitudes when RBC count is increased, but this should be discussed with a healthcare professional as high levels of iron may be toxic.
- Ginko Biloba has been studied but the results vary from being useful in the prevention and treatment of altitude sickness to not being effective at all. If you decide to supplement with



Ginkgo Biloba, it is advised to start taking it some time before leaving and to also seek professional guidance on it's use and dosage.

- Vitamin-B complex to maintain and preserve normal nerve function and energy metabolism.



Preparation for high altitude trekking: En-route to destination

Now the day has arrived to leave for the trip you've worked so hard on to go, not just physically but financially as well. The excitement starts to build and you can't wait to arrive and explore the area before you start. If you follow these steps once arriving it will help tremendously in the days to come.

- Sleep, get plenty of it. Try to arrive at least 2 days before your trip. As with international travel, our "clocks" are thrown out and we have trouble sleeping and getting enough rest. We also have this want to go and explore. Rather take 2 days to sleep as tiredness and dehydration increase your risk of developing altitude sickness. This will also allow your body to become more accustomed to the new surroundings and undergo the necessary changes in a more relaxed state, rather than while being exerted.
- Avoid the use of sleeping pills, tranquilizers, alcohol, tobacco or any depressant drugs as they lower your respiration during sleep. This will worsen any symptoms you may experience at altitude and they can also inhibit the acclimatization process.
- Keep hydrated





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- If you experience any new symptoms once arriving at altitude, you can begin your course of medications to alleviate the symptoms. These would include:
 - Acetazolamide, which is diuretic causing increased urination (NB – Keep hydrated) and has also been shown to improve respiratory ventilation therefore allowing increased oxygen exchange within the body
 - Dexamethasone is given to reduce the incidence and severity of AMS
- Coca leaves are used by the people in Central and South America to prevent mountain sickness. Studies have also indicated that coca improves physical performance at high altitudes. There is a catch though: as little as one cup of tea made from coca leaves may give a positive result on a cocaine drug test.

Preparation for high altitude trekking: On the Mountain

You're on your adventure and steadily making your way up the mountain. Everything is going great. The scenery is majestic, the preparation has paid off because you're feeling great and you're keeping yourself hydrated and to you everything is going great. While you should enjoy every moment of it, there are a few additional things to keep in mind.

- Keep track of your symptoms for any progression in them or the appearance of anything new. As soon as something new pops up, or you feel yourself getting worse, speak to the healthcare professional on hand for assistance.
- Eat appropriately, mainly consume carbohydrates. This can be done also leading up to the first day. Diets high in carbohydrates have shown to relieve AMS symptoms as well as improve performance and mood. Numerous studies have shown that carbs improve oxygen saturation in the blood and balance your energy.
- Avoid salt as it can cause dehydration
- Take it easy at first, go for a steady, light pace so you can settle in and find a rhythm best suited for you.
- Sleep in an upright position as this will make your head feel lighter.

These are just few tips on how to acclimatize and prepare yourself for the journey ahead and to make the most of the experience. If at any stage during the trip you have questions, do not hesitate to ask anyone in charge or the medical professional on hand.



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