

Acute Mountain Sickness (AMS) Explained

Over the last couple of weeks we have discussed all the changes that your body will go through and how to [best cope with the altitude](#) and how best to prepare for it..... Now, what happens when things do not go to plan?

Acute Mountain Sickness: The Intro

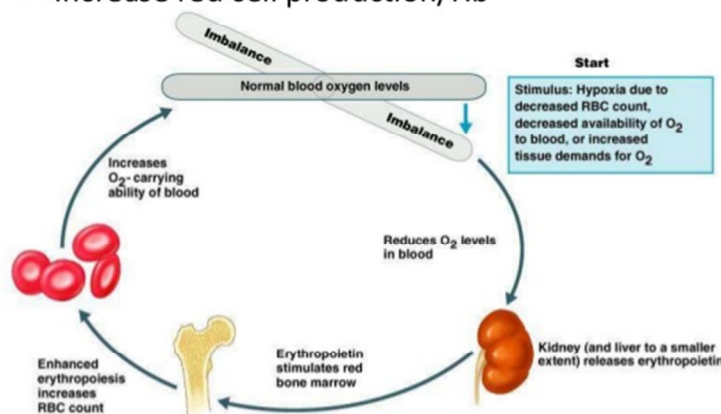
There are many things that can go wrong while on your trip. They can range from physical injury to severe illness. Over the next couple of weeks to months, we'll be going over and discussing the various things that may go wrong. In each of the topics, we will look at the causes, symptoms, treatment, prognosis and complications so that, if you are ever faced with any of these problems, you will have the knowledge to best manage the situation.

Altitude Sickness comes in 3 main forms, ranging from mild to severe. The mild cases of AMS (which we will be discussing today) are similar to a "hang-over". The more severe aspects include HAPE and HACE.

Acute Mountain Sickness (AMS)

Acclimatization

- Hematologic Effects:
 - Increase red cell production/Hb





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AMS is the mildest and most common type of illness experienced while ascending to higher altitudes. The majority of people will be affected slightly while a small percentage will feel like “death”. If you experience any sign or symptom of AMS, you should take this as a warning sign and speak to the healthcare professional on duty, as you are at a higher risk for developing the more serious forms of altitude sickness: HAPE and HACE.

Generally, most people are good shape up to 2500m, but very small symptoms such as breathlessness can occur from as low as 1500m. Once above 2500m, these symptoms will become more noticeable.

Acute Mountain Sickness (AMS) does not discriminate, it can happen to anyone. Women and men are equally affected, and it has no preference for a particular race either. Even if you are extremely fit AMS can catch you. There have been numerous reports of Olympic athletes suffering from AMS. There are however, factors which will make AMS extremely likely, These include:

- Ascending more than 500m per day
- Exercising vigorously
- Dehydration
- Lack of sleep
- Alcohol consumption
- Tobacco use
- The use of sleeping pills, tranquilizers and any depressant medication.

Acute Mountain Sickness (AMS) Symptoms:

The symptoms of AMS are similar to that of a hang-over and can be classified into early and late stages.

Early symptoms include:

- Headaches
- Fatigue
- Insomnia
- Dizziness
- Nausea
- Lack of appetite
- Shortness of breath during exercise

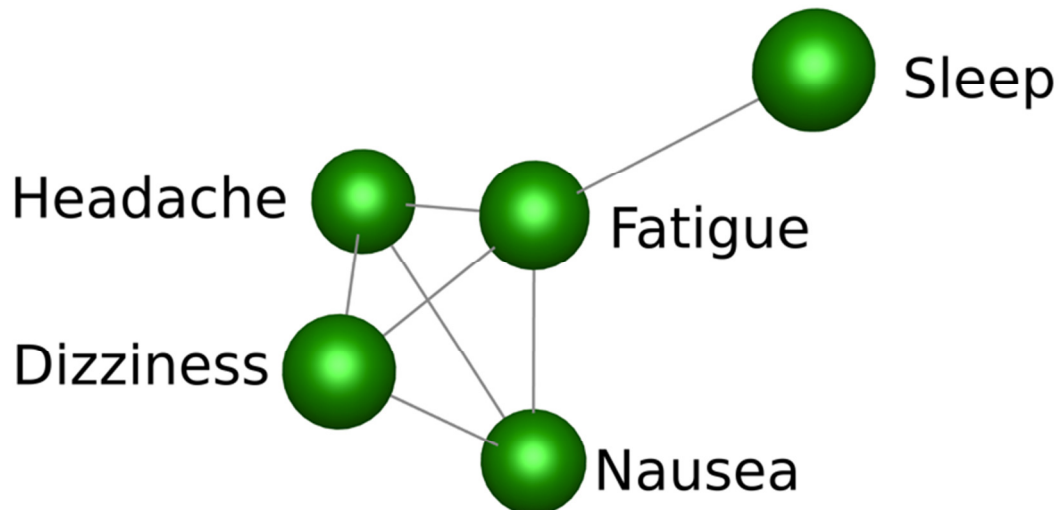


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Late symptoms include:

- Swelling of the extremities (arms and legs)
- Anti-social behaviour or social withdrawal



Treatment

There is a wide variety of treatment options for AMS which include:

- Oxygen administration to improve oxygen/ blood saturation
- Aspirin, ibuprofen or acetaminophen for headaches
- Antimetics for nausea include Zofran and Compazine. The latter is known as anti-nausea medication but also enhances respiratory rate in low oxygen settings
- Acetazolamide (Diamox) to improve acclimatisation
- Rest and sleep
- Decreased physical exertion
- Increased water intake
- You could even be advised to descend in altitude until symptoms improve.
- Dexamethasone is given to reduce the incidence and severity of AMS

Natural treatment options:

- Coca leaves are used by the people in Central and South America to prevent mountain sickness
- Ginkgo Biloba may decrease intensity of AMS
- Ginger is believed to aid in mild AMS but is most commonly used for nausea
- Garlic may thin the blood and increases blood flow
- Cloves have been suggested to enhance the body's utilisation of oxygen



- Lavender oil is a natural sedative and has a relaxing effect. It is great for anxiety, stress, depression and headaches. It is also known to alleviate muscle spasms and digestive complaints while enhancing digestion.

Prevention

The prevention of acute mountain sickness / AMS is rather simple when you listen to your body. It is all about knowing yourself and learning about your body because everyone is different and experiences things differently.

The most important thing is to let your body adjust to the altitude at a normal and steady pace. If it is your first venture into high altitudes, you will need to learn the time frame and limitations of your body. Like they say "Rome wasn't built in a day". There are preventative measures which can be taken to combat AMS. They include the following:

- No physical exertion for 24 hours once arriving at higher than normal altitudes
- Take 1 to 2 days before starting the trip to acclimatize
- Avoid alcohol
- Consume a high carbohydrate diet
- Keep hydrated
- Ascend gradually
- Increase the sleeping altitude by no more than 300 meters per day
- Follow the rule – "climb high, sleep slow"
- Prophylaxis medication is available which was discussed [in the previous blog](#).

Prognosis

Actually, the outcome or prognosis for someone suffering from AMS is rather excellent as long as common sense is used and medical help is acquired at the onset of symptoms before HAPE and HACE occur.

A full recovery from AMS is always achievable. The full duration of AMS is a couple days, depending on severity, management and treatment.

