



# DEHYDRATION

## HOW TO AVOID

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When you are on the hill and clagged in by mist and you are getting a headache trying to figure out your location remember its not only worry and stress that can give you a headache so can dehydration. Along with the other symptoms which include tiredness, dizziness, muscle weakness and cramps.

Dehydration is a big threat to your actual performance and how you are feeling during the day by not packing the correct foods and fluids.

Camels can drink approximately 140 pints of fluid in one go; we humans require about eight pints a day to maintain the balance.

Most people associate sweating as the main route for fluid loss, but loss via your lungs is also significant. Your lungs expel around two pints of water each day through normal breathing and the loss is more during cold weather. Even if you have sweaty feet, that's another half pint. On top of that add several trips to the toilet and the average adult will pass at least three pints a day. And another pint just with normal sweating.

Water has plenty of important functions in the body, but its role in temperature regulation during exercise is vital. Although your skin temperature can vary a lot, your deep body temperature is kept within narrow limits and in a healthy adult, is 37C. A lot of heat is needed just to keep your body warm enough, comes from the conversion of the chemical energy of foods into kinetic energy which allows you to do useful work or exercise such as climb a mountain. This is very inefficient and 70/80% of the available energy in foods is lost as heat, which amounts to about 1 calorie per minute. This fine if you are just sitting around, but as soon as you start to exercise or charge up a hill, more energy is produced to fuel this activity and the excess heat production goes up to about 25 calories per minute.

After a few hours this can add up to a massive amount of heat which if not removed, would mean that you and your heat body clock would be well cooked. The protein enzymes in your body cells would end up like scrambled egg and you will be as dead as a dodo.

A rise in body core temperature of as little as 5C above the normal 37C means serious heat exhaustion. This point is reached after only about 15 minutes of hard work if it's nor removed. The fact that you can keep going for hours with only a 2-3C rise in body temperature means that the heat produced is lost almost as fast as it's produced. This is achieved by the evaporation of sweat poured onto the skin surface. Evaporation of one litre of water from the skin will get rid of 580 calories of heat from the body, equivalent to the heat required to produce 40 cups of steaming tea.

So sweating is vital during any endurance event, to prevent severe overheating, but at a cost. The loss of large amounts of sweat brings on the threat of dehydration.

So what to do, keep yourself well hydrated, the more you drink the easier the exercise will feel. Aim to drink before you set off to climb, especially in hot weather; don't wait until you feel thirsty. Thirst is a poor indicator of fluid requirements. By the time you are thirsty you are already dehydrated. Try to drink every 10- 15 minutes during walking. In hot conditions you may not be able to keep pace fluid loss.

Hill walking can be thirsty work but you must take enough fluids with you so you will have to be sensible when thinking about packing your backpack. Avoid cans of cola and other fizzy drinks as these are too concentrated and contain too much sugar to promote water absorption. Water is always the best choice and there is usually a stream high up which will be safe to drink from and top up. Aim to drink small amounts but often this will help to maintain your brain and muscle function.

The best way to check if you are drinking enough is by the volume and colour of your urine. Small amounts of deep yellow pee means you need to drink a lot more and soon.



