

Dehydration

Most of us don't drink enough water. Whether it is in bush survival or in day to day living the observation has been made that one of the more poorly understood physiological processes is the utilization of water by the human body.

When the body has to operate under a water deficit there may be profound implications with respect to (bush) survival. The term 'dehydration' is used for the condition where the body has to labor under a shortage of water.

It is readily understandable that someone lost in the desert may have to deal with life-threatening dehydration, but ignorance of this phenomenon tends to make it a rather common occurrence even where there is more than adequate water available such as in the boreal or spruce-moose forest.

Some authorities claim that most people who have perished in survival situations may have actually died of dehydration rather than from the seemingly more obvious condition such as freezing or starvation. Dying of 'exposure' is more likely dying of dehydration.

Drinking water, like breathing, is done more or less unconsciously. We usually do not keep track of how much and how often we drink, but simply do so when the need arises as dictated by the sense of thirst, and our habits.

Habit may determine how adequate or inadequate is our approach to drinking water.

Those of us who suffer frequent headaches, constipation, and constant fatigue amongst many other related ailments may be flabbergasted to learn that these conditions may stem from something as simple as not drinking adequate amounts of water.

It would be a rather rare situation to not be able to find adequate amounts of water anywhere throughout Canada's sparsely settled areas. The last thing we need to die of is dehydration. The directions on how to avoid dehydration can be quite simple.

1. Force yourself to drink enough water frequently, so as to eliminate at least a litre of urine daily.
2. Thirst should not be relied on as the only signal to drink more water. Hunger, fatigue and cold should also serve to remind you to drink more water.
3. If possible bring the water to a boil and drink it as hot as possible.

Why force yourself to drink water? Under the duress of survival you may not even feel any thirst. For most people thirst has been proven to be a poor indicator of water lack. You will be better off not to trust it. You may find that thirst may be all too easily alleviated by a mouthful of

cold water when you should have consumed two or three cups full.

Why pass as much as a litre of urine? Regardless of how much you may lose through perspiration and respiration and how readily you may quench your sensation of thirst, you may be taking in enough water for your body to function properly and to better flush out your system. Your urine should then be rather pale in color. If it is bright orange you are likely at an early stage of dehydration.

As it is, the usually adequate intake of eight cups of water per day is recycled by that marvelous organ known as the kidney to do the work of 40,000 cups. The less water you ingest below the required minimum, the harder your kidneys have to work.

Can drinking water alleviate hunger? In my personal experience, drinking seemed to reduce hunger pangs to the point where they were hardly noticeable.

What is the relationship of dehydration to fatigue? C.G. Pitts, a Harvard physiologist, tested trained athletes on a treadmill that travelled at three and a half miles per hour. One group was given no water, being instructed to walk until exhaustion would not allow them to continue. They lasted about three and a half hours. A second group were allowed to drink as much as desired. They lasted six hours. A third group were calibrated for their water losses which were replenished at a rate of about a cup every 15 minutes. At seven hours this group terminated their treadmill walk with virtually no sign of fatigue.

This would seem to be a very useful bit of knowledge in any emergency situation. By replenishing lost water frequently you may maintain a high level of energy expenditure without the expected chronic fatigue.

Being allowed to maintain a high level of energy, you may stand the cold better, avert frost bite and hypothermia, and have enough energy to walk and so on. None of the above conditions would be improved by thicker blood and a sluggish circulation.

Cold tends to numb the sensation of thirst. Also the cold air entering the lungs is humidified as it is brought to body temperature thereby drawing considerable moisture from the lungs which is shortly exhaled. The relative humidity of cold air is usually very low.

Cold water is difficult to drink in quantity. All this plus the exertion of cold weather living can create a water demand greater than that imposed by the Sahara desert.

Why should you drink hot water? One important reason to do so is that water that has just been boiled has been degassed. That is, the bond between certain gases, especially oxygen, and the water molecules has been broken by boiling, as a result becoming more readily absorbable by the body.

This not only saves energy, but warms the stomach and averts the bloated feeling that results

from drinking large amounts of cold water. Some survival specialists claim that drinking hot water as suggested may increase survival time by at least ten percent.

In survival, if you can sleep well at night and have all the water you need, you have it made.

Mors Kochanski, a Rosevear resident, is an outdoor living skills instructor.