

Cairn Stone Adventure Tours

Back Country & Remote Wilderness Extreme Hikes



Fuel For The Back Country Wilderness

By Coach Ron Gunn

Three Important Areas: Extreme day hiking in the back country, especially in desert areas, requires special attention when fueling your body. The three important areas are water, electrolytes, and energy foods.

Water: It is very important to keep your body hydrated. Back country desert environments can be insidious because you can become easily dehydrated without knowing it. In dry, arid climates your sweat is not noticeable because it evaporates immediately. Your intake of water on a typical October day in the Southwest could be about 6-8 ounces every 30 minutes. Drink even if you don't appear to be thirsty, because once you do feel thirsty, problems may have already started.

Electrolytes: A serious condition for extreme hikers in the desert is hyponatremia or "water poisoning." The Park Rangers rescue more people who drank too much water than who were dehydrated. (Google search *hyponatremia* for more information). This condition happens when your blood chemistry changes with excessive water compared to the electrolytes. This condition can be avoided by taking adequate amounts of salt and other electrolytes. This can be done through sports drinks, dissolving tablets, energy bars and gels, and other foods which contain sodium, potassium, chloride, calcium, magnesium, phosphate, and sulfates. Note that for the very long day hikes you cannot carry enough premixed liquid electrolytes, you must mix on the trail. Use powder or tablet form to mix at water stops. I have listed below some of the best sources for electrolytes:

Cliff Bars and other brands
(Carbohydrates for energy)
CytoSport Cytomax Powder
e-Gel Electrolyte Energy Gel
Gatorade Electrolyte Powder
Vitalyte Electrolyte Powder
GU Energy Gel
Hammer Nutrition Products
NUUN Electrolyte Tablets
Powerade Electrolyte Powder
Propel water

Ultima Electrolyte Powder

Bananas
Granola Bars/Cookies
M&M's/
Marathon Bars
Peanut Butter Crackers
Trail Mix (sweet & salty)
Powerbar – Gels & Bars
(Protein for recovery)

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Food: Eat or drink on a regular basis. It would not be uncommon to burn 4,000 – 6,000 calories during a 10 to 12 hour hike with lots of elevation change. During an extreme hike is no time to go on a diet. During a long vigorous hike a hiker could easily burn 400 calories or more per hour, and it's one time "vitamin J" is OK. Highly refined carbohydrates are your most ready source of energy. Proteins and fats should be avoided for the most part, because they take longer to convert to energy and, also, rob precious energy in the digestive process. Complex carbohydrates like fruits, also, take longer to digest and the roughage may cause other *problems* that you don't want on the trail. During the later stages of an extreme hike I have found a caffeinated drink or gel very helpful. The caffeine seems to stimulate the release of fatty lipids in the blood stream, which gives you a boost. I know *Red Bull* has helped a lot of my friends up long elevations. Whatever you use don't forget to "***Dance with the one that brung ya.***" In other words – only use the electrolytes and energy foods that worked for you during training hikes. Don't walk into the a store the day before your big hike and pick up supplies you have not used previously. **NOW is the time to be training with the same weight and supplies that you will use during your longest day hike.**

Bladder Water System: I, also, highly recommend the use of a good quality bladder water system, such as a *Camelback*. They are very efficient on the trail, you can drink while still watching your step. I suggest putting ice cubes in your bladder to avoid that initial drink of warm funky water in the hose.

Dehydration Check: A good way to check your water and electrolyte consumption is to watch your urine. **It should be slightly yellow. "If your pee is clear, the end is near!"** If it is clear, you are not getting enough electrolytes. This can be due to drinking too much plain water. If you pee more than once per hour with clear urine you are over hydrating. Ladies, you can't be too modest to pee during long hikes. Remember: "***if you don't pee – you will be on your knee.***"

It is, also, important to know the difference between an energy drink, an electrolyte drink and a sports drink. Read the labels. Many electrolyte drinks and tablets are low calorie and supply very little energy and some sports drinks, such as *Propel*, have no electrolytes. One last point; load your water, electrolytes, and energy foods smartly. If your day-pack exceeds 16 pounds, you may reach a point of diminishing returns. Use your water stations wisely and don't over pack liquids or foods. A six pack of *Red Bull* on your back may hinder you more than help. If you did not use it in training don't try it on your big hike. This is one reason why we have day-pack inspections.

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DRINK RIGHT, EAT RIGHT, HIKE WELL!

Another condition that can affect back country hikers is *water intoxication* or drinking too much water. This causes water toxicity when your kidneys can't function properly and creates a dangerous situation of electrolyte imbalance. You will have no high tech medical tests in remote wilderness areas however, watching your urine color can keep you healthy. Watch both the frequency of urination, (**1 to 4 hours**) and the color:

- **Slightly Yellow = OK**
- **Clear = need electrolytes (too much water)**
- **Dark = dehydrated, need water with electrolytes**

Your safety is a priority. Our training program is designed to be proactive so you will know what to do; for prevention and for corrective action, at the earliest symptoms. Follow my instructions and nothing you will do will become life threatening. We had one incident in 18 years that was life threatening and it happened to someone who could not attend my lectures as they lived on the East coast. Two hiker groups had someone that succumbed to the abnormally hot conditions that year. They took very different courses of action with very different results:

- **Patience-**One group stopped, waited in the shade while those in trouble re-hydrated and regained strength. That group emerged after 16 hours exhausted, but with everyone healthy. With a good nights sleep everyone recovered.
- **Press On-**The other group gutted it out with a hiker that could not eat or even keep liquids down. She made it out but emerged dehydrated, severely electrolyte depleted and didn't know her name. This resulted in two emergency helicopter rides to two hospitals – it nearly cost her life!

Be smart, be safe and finish your hike healthy.

Having difficulty? Review the basics of your training listed above. If you are low on energy, cramping or not feeling right the most likely cause is one of those listed above. The repeated experience of our back country hike veterans is that when they get into trouble, the solution is in their day pack.

Be Smart: It will always be better to risk coming out in the dark or sleeping on the trail than to put yourself unnecessarily into a life threatening situation.