

# WILDERNESS BASICS COURSE

## EAT, DRINK AND DON'T BONK

Have you ever hit the wall? Dehydration and glycogen depletion when exercising are the cause. You feel weak, fatigued, a little dizzy, maybe nauseated. Cramps, chills and hallucinations can follow. Persistent continuation of the exercise can result in heat stroke or cardiac problems. Got your attention!!!

Eat and drink to keep the old body running smoothly. Edmund Burke, director of sports science at U. of Colorado says, "As soon as a person is dehydrated as little as two percent of his body weight, and blood sugar has started to go down, his/her performance is already effected". Do you know that you lose two liters of water a day just getting out of bed and sitting in front of the computer all day? Hiking, you can lose one to two liters an hour.

If you don't replace that lost fluid you become dehydrated. So, what does that mean? With low body fluid level your blood volume decreases, and oxygen does not reach those tired muscles as it should. Cells become dehydrated and don't process and metabolize foods as efficiently as normal. You sweat less and body temperature rises. You bonk! Your body is screaming for help. Are you listening?

The consequences of not drinking enough fluids is compounded by not eating. Glycogen, the sugar that muscles store as fuel, runs low after about 90 minutes of exercise. It must be replaced with calories, by eating.

### Some information on fluid loss and replacement:

Get a handle on how much fluid loss you experience by weighing yourself before and after exercise. One pound equals 16 ounces of water (1 pint or 1/2 liter). You should replace fluids with 150% of the volume you lost. The chart indicates the weight that a fit person of 180 to 210 pounds would lose in 90 minutes of moderate to intense exercise.

Temperature	Humidity			
	<40%	40-60%	60-80%	80-100%
60°F	0 – 1.5 lbs.	0 – 2.0 lbs.	0.5 – 2.5 lbs.	1.0 – 3.0 lbs.
70°F	2.5 – 3.5	3.5 – 4.0	4.0 – 4.5	4.5 – 5.0
80°F	3.5 – 4.5	4.5 – 5.0	5.0 – 5.5	5.5 – 6.0
90°F	4.5 – 5.5	5.5 – 6.0	6.0 – 6.5	6.5 – 7.0
100°F	5.5 – 6.5	6.5 – 7.0	7.0 – 7.5	7.5 – 8.0

Source: Edmund Burke, U. of Colorado

To gauge your own loss of fluid rate, do the before and after exercise weighing, without drinking water for a short exercise period.

### **WHAT TO DO!!!!**

Fluids..... It is best to down 16 ounces (1/2 liter) two hours before the exercise. Even if you start a hike soon after waking up, drink this amount. Plain water, glucose containing sports drinks, and diluted fruit juices are good. Caffeine containing drinks (coffee, tea, soda) are diuretics and are not recommended.

Drink 5 to 10 ounces of fluid every 15 minutes during exercise depending on ambient conditions and the severity of the exercise. Sports drinks are recommended as they contain readily available electrolytes and glucose for your system. They also add calories for energy. (See below.)

The best gauge of sufficient fluid intake is the color of your urine. It should be copious and fairly clear.

Food..... You should take in about 100 to 200 calories of carbo-rich food every hour. This can be anything you like and it is best to vary what you eat as the hours go by. A mix of carbos, protein and fat will give you quick energy as well as a sustained calorie reserve. Most sports bars offer various percentages of carbos, protein and fat. Find one that works best for you and your taste buds. Other suggestions are candy bars, hard candy, fruit, Fig Newtons, PB and J on bagel, turkey sandwich or trail mix.

If the exercise activity will be longer than two hours, start eating and drinking within 30 minutes after the start. Then keep up the intake. You will feel better and perform better when the third and fourth hours roll by.

### **AFTER EXERSIZE**

Hard exercise usually will leave you depleted in energy stored and dehydrated, even if you have been drinking and eating along the way. So it is a good idea to drink 150% of weight lost over a period of three hours. (one pound equals 1/2 liter of water) This will re-hydrate the body.

Eat something with carbos and protein within 30 minutes. A minimum of 200 calories will start the refueling process. You will feel better, have more energy and be ready for the next day's activities.

An outing where you felt great and energetic will plant good memories for a long time.

### **SPORTS DRINKS**

Sport drinks have some advantage over plain water. They also have an advantage over heavily sugared soda drinks, as sugar tends to slow the absorption of beverages. Sport drinks are formulated to contain no more than 8% sugar (carbohydrate), the right amount for performance and good absorption. Most have 5 to 6% carbohydrate. They conserve your carbohydrate stores and also have enough sodium and potassium to replace what you lose during a heavy workout. This helps maintain the optimal fluid balance in the body.

If your strenuous workout is less than one-hour, water is fine. However an endurance activity of more that one hour is a good reason to consider a sports drink.

Al Hofstatter