



## **NUTRITION - GETTING IT RIGHT ON RACE DAY**

For many people getting their nutrition right on race day can be a challenge. Here are several easy rules to follow that can help you nail your nutrition when it matters most.

### **COUNT CARBOHYDRATES AS WELL AS CALORIES**

We often get hung up on counting calories rather than carbohydrates but when you are physically active you are for the most part burning carbohydrate. Even the notion of being in a fat burning zone has to happen in the presence of a carbohydrate source. Nobody ever bonked by running out of fat stores but just about everyone at some point has bonked because they ran out of their carbohydrate stores. The numbers are simple when considering carbohydrate. Our bodies can process roughly 1-2 grams of carbohydrate per kilogram of body weight per hour when physically active.

### **USE INTENSITY AS YOUR GUIDE**

Generally the higher the intensity the less nutrition we can process and absorb. Consider the extremes of intensity and this becomes obvious. Nobody eats a meal while doing short interval sets in the pool or on the track. However, if you are sitting down at the dinner table and your intensity is very low you can pack away enormous amounts of food. This is primarily because the higher the intensity the less attention our body can pay to the process of digestion.

When participating in sports that require the intake of calories it's important to consider the length and intensity you will have to go at before considering your nutritional strategy. For events lasting 1-2 hours you can almost get away without any nutrition and thus you can be closer to the 1 gram of carbohydrate per kilogram of body weight per hour. For sports that last longer than four hours like Ironman you can push that number closer to two grams of carbohydrate per kilogram of body weight per hour depending on how hard you go (or your relative intensity).

### **OSMOLALITY IS THE KEY**

Osmolality is perhaps one of the most overlooked factors when considering race day nutrition yet it may be the single most important factor in your ability to absorb nutrients. Osmolality essentially refers to the concentration of particles in a solution. If something is highly concentrated with sugar the body has a very difficult time pulling the sugar from the gut across into the blood stream. There can be a double negative affect in highly concentrated products like gels where not only do the sugars fail to reach the blood stream but the gut will pull water from the blood stream to help bring the osmolality down thus in turn causing dehydrating.

There are products that address osmolality. Infinit drinks for example actually list the osmolality of each of their products. Most products will suggest either consuming with water or they will come pre-mixed at desired concentrations designed to maximize absorption.

### **FLUID INTAKE**

The amount of fluid you take in depends on several factors. Physical size, sweat rate and the type of sweat you have (high or low sodium loss) are important to understand when considering how much fluid you need. Weather conditions are another obvious factor. For most people it's clear that when the temperature goes up, so too does your need for fluid because of increased sweat rates. But it's also important to understand that you lose fluid in cooler temperatures as well as when you are swimming. Even the simple act of respiration causes fluid loss. Ever notice how moist your breath is?

### **SODIUM**

Sodium plays a major factor in your ability to utilize fluid. When we lose sodium through sweat we lose the capacity to draw water across cell membranes through osmosis. Extreme sodium loss can cause fluid to be trapped in the gut, which can cause bloating. Hydration is a measure of water in the blood stream; so just consuming water into the gut is not enough. It must then travel from the stomach to the blood stream and you need adequate sodium levels to make this happen.

### **PRACTICE MAKES PERFECT**

If you are getting ready for a long endurance event that requires the consumption of calories, water and sodium, it is imperative that you practice what you are going to do. Many long distance events go awry simply because people have not practiced their nutritional strategy. Just as the body must get used to the pace you want to go, so to must it get used to ingesting and processing calories while at effort. Practice makes perfect!