Coach-Athlete Q&A

A look at some coach-replies to common questions by topic.

The 10 Biggest Mistakes Endurance Athletes Make

By: Steve Born

The article below is an abbreviated version of the yet-to-be-completed revision of my original "10 Biggest Mistakes" article. The current version of the full-length article, which appears in "The Endurance Athlete's Guide To Success," is of course still appropriate but, as is the case with most my articles, I'm always going back and adding to them or revising them in some way. The original version, along with other useful articles regarding the proper fueling of the body, and information about the Hammer Nutrition line of fuels can be found in "The Endurance Athlete's Guide To Success." You can download a free copy at: www.e-caps.com/downloads/fuelinghandbook.pdf

Of all the articles I've written, this one was probably the easiest. Why? Because at some point in my cycling career I made EVERY ONE of these mistakes (and some of them more than once). In fact, the only difficulty in writing this article was keeping it to ten mistakes only! Seriously, some of these seem so basic, but you'd be surprised how many athletes keep making the same ones over and over and then wonder why their performance falters. Take a look at each of these topics/issues and see how many apply to you. Identifying and correcting them (consider applying the provided recommendations) will yield tremendous benefits in your overall performance. In no particular order, here are "The 10 Biggest Mistakes Endurance Athlete's Make"…

Excess Hydration

Optimal nutritional support for endurance athletics means consuming the right amount of the right nutrients at the right time. You can neither overload nor undersupply your body without incurring detrimental results. Too much or too little will compromise athletic performance and possibly lead to serious consequences. This is especially true for hydration. Many athletes, however, trying to prevent dehydration, drink far too much. Excess fluid consumption during exercise not only impairs performance but can also lead to potentially life-threatening consequences. Overhydration ("water intoxication") can overly dilute your electrolytes, causing serious metabolic problems.

Recommendation: Most athletes, under most conditions, can satisfy hydration requirements and avoid the consequences of overhydration with a fluid intake of 20-25 ounces hourly. Under extreme conditions you may require slightly more fluid, with increased electrolyte intake to match increased fluid intake. You can easily maintain electrolyte balance by consuming a few additional Endurolytes capsules.

Simple Sugar Consumption

Fructose, sucrose, glucose and other simple sugars (mono- and disaccharides) absorb poorly, cause wild energy fluctuations, and require excess water consumption. Avoid any fuel product that uses these as the main carbohydrate source; you have much better choices available. Also, for optimal health, you should restrict simple sugar intake. Complex carbohydrates (polysaccharides) are the wisest choice for endurance athletes, as they allow your digestive system to rapidly and efficiently process a greater volume of calories, providing steady energy.

Recommendation: To get the proper amount of easily digested calories, rely on fuels that use complex carbohydrates (maltodextrins or glucose polymers) only, with no added simple sugar, as their carbohydrate source. Hammer Gel and HEED are ideal for workouts and races of up to two hours. For longer workouts and races, select Perpetuem or Sustained Energy as your primary fuel choice.

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Eating Too Much Solid Food During Exercise

While some solid food intake can be a welcome diversion during ultra-endurance efforts, I don't recommend it as your primary fuel source, because solid food requires more time, fluids, and electrolytes to digest. Inasmuch as exercise diminishes digestive system functioning, regular solid food intake increases the likelihood of performance-inhibiting stomach discomforts such as bloating, stomach cramps, and nausea.

Recommendation: Use Hammer Gel, HEED, Sustained Energy, and/or Perpetuem as your primary fuel source during exercise. These allow for easy digestion, rapid nutrient utilization, and less chance of stomach distress.

Sticking To Your Game Plan When It's Clearly Not Working

Having a "game plan" that you've honed during training is a big step toward success on race day, but don't slavishly adhere to it if it's not working. What does fine during training at a slower pace and lower overall energy output may fail during competition. This is particularly true for fueling—your hourly intake of fluids, calories, and electrolytes. Athletes who stubbornly maintain the same fuel intake hour after hour, even when it's clearly not working, end up with poorer results, if they finish at all.

Recommendation: It's a good practice to have a game plan that includes a fueling protocol that you have refined during training, but you need to be flexible. Evaluate and adjust accordingly as race pace and weather dictate. Have a game plan, but write it in pencil, not in ink.

Training On Too Few Calories

It's important that you use the same fuel in training that you plan on using in a race and it's equally important to use adequate amounts of that fuel. Many athletes train on severely inadequate caloric intake hoping to lose a couple pounds and get down to "race weight" more quickly. You can lose pounds, but they're likely to include lean muscle tissue. Depriving your body of calories compromises workouts and recovery due to muscle cannibalization to satisfy energy requirements.

Recommendations: Consume enough calories to finish your workout feeling strong. This will promote maximum benefit from training. Dieting while training deprives your body of needed calories for energy production. Eat, fuel, and train sensibly and your weight will take care of itself. Also, train with the same fuels that you will use in competition.

Excess Caloric Intake During Competition

Too many endurance athletes fuel their bodies under the premise, "If I burn 500-800 calories an hour, I must consume that much or I'll bonk." However, your body can't replenish calories as fast at it expends them (ditto for fluids and electrolytes). Athletes who try to replace "calories out" with an equal amount of "calories in" usually suffer digestive maladies, with the inevitable poorer-than-expected outcome, and possibly the dreaded DNF ("Did Not Finish"). Body fat and glycogen stores easily fill the gap between energy output and fuel intake, so it's detrimental overkill to attempt calorie-for-calorie replacement.

Recommendation: Intake of 240-280 calories per hour, on average, is sufficient for most endurance athletes. Lighter weight athletes (<120-125 pounds) may need less, while heavier athletes (> 185-190 pounds) may need slightly more. Experiment in training to determine your specific requirements, using 240-280 calories/hour as a base to work from.

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Inconsistent Electrolyte Supplementation

Consuming sufficient calories and fluids during workouts and races is an obvious necessity. Consistent electrolyte supply is equally important. Just as your car's engine requires sufficient oil to keep its many parts running smoothly, your body requires electrolyte minerals to maintain smooth performance of vital functions such as muscle contraction. Athletes who neglect this important component will impair their performance, and may incur painful and debilitating cramping and spasms, a sure way to ruin a workout or race.

Recommendation: Using Endurolytes consistently during workouts and races fulfills a crucial fueling need by replenishing the required electrolytic minerals.

Consuming Excess Protein During Exercise

Protein becomes an important fueling component when workouts and races extend beyond two or three hours. However, protein should only supply about 5-15% of the total caloric requirements; excess protein disposes you to stomach distress and muscle-fatiguing ammonia accumulation. Endurance athletes should avoid the high-protein meal replacement drinks (MRPs) popular with bodybuilders. These products, which provide far too much protein and insufficient carbohydrate, are poor choices for endurance fueling.

Recommendation: Use Perpetuem or Sustained Energy as your primary fuel during workouts and races that exceed two or three hours. These fuels supply quality protein and complex carbohydrates in an ideal ratio and are much more appropriate for endurance exercise than MRPs and similar products.

No Protein Intake During Long Exercise

When exercise extends beyond about two hours, your body begins to utilize some protein to fulfill its energy requirements. If you fail to supply your body with protein from your fuel, it has only one other choice: your own muscle! Called "lean muscle tissue catabolism" or "muscle cannibalization," this process devastates performance through muscle deterioration and increased fatigue-causing ammonia accumulation, and also negatively affects the immune system and recovery.

Recommendation: Using Perpetuem or Sustained Energy as your primary fuel during workouts and races longer than two to three hours will satisfy energy requirements and protect against excess muscle breakdown. You stay healthier, reduce soreness, and decrease recovery time.

Inadequate Post-Workout Nutrition

Performance improvement depends on a program of exercise to stimulate muscular and cardiovascular adaptation followed by a recovery period in which the body rebuilds itself slightly more fit than before. Thus, the real gain of exercise occurs during recovery, but only in the presence of adequate rest and nutritional support. Athletes who fail to replenish carbohydrates and protein shortly after workouts will never obtain full value from their efforts. Carbohydrate replenishment as soon as possible upon completion of the workout takes advantage of high glycogen synthase activity, imperative to maximizing muscle glycogen, the first fuel the body uses when exercise commences. Protein supplies the amino acids necessary to (a) maximize glycogen storage potential, (b) rebuild and repair muscle tissue, and (c) support optimal immune system function. Proper post-workout nutrition allows you to obtain maximum benefit from your training.

Recommendation: Consume 30-90 grams of complex carbohydrates and 10-30 grams of protein (a 3:1 ratio of carbohydrates to protein) immediately after workouts. You can prepare a variety of easily made and rapidly assimilated post-workout drinks using Hammer Gel for your carbohydrate source and Hammer Whey for protein. Or try this delicious/nutritious combination: 2-3 scoops of Sustained Energy plus 1-1_ scoops of Hammer Whey in orange juice.

Steve Born is a technical advisor for E-CAPS with over a decade of involvement in the health food industry. He is a three-time RAAM finisher, the 1994 Furnace Creek 508 Champion, 1999 runner-up, the only cyclist in history to complete a Double Furnace Creek 508, and is the holder of two Ultra Marathon Cycling records. In February 2004 Steve was inducted into the Ultra Marathon Cycling Hall of Fame.