

M2 Fuel-burning Efficiency---Food for Thought

Nutritional strategy is a popular and oft-analyzed subject in the triathlon training world. Indeed, the multi-sport world has a habit of working itself into a state of indigestion when it comes to the subject of fueling and nutrition for endurance events.

Having observed yet another Tri-forum thread on fueling for a 1/2 IM event and the varying exhortations of how much to eat (see the Biggest Whopper below), I thought it would be more useful to redirect the conversation to how little one should eat, while also viewing the never-ending fueling discussion within the context of better considered general training methods.

It is my experience that during training, endurance athletes should practice eating as little as possible while not bonking. Common sense tells us that the body does not enjoy ingesting and digesting large amounts of food while exercising vigorously under what are often uncomfortable weather conditions. Energy diverted to the digestive process would be better spent if directed to the legs and arms we use to move us forward. Logical enough.

If training is a practice in bodily adaptation, then more thoughtful consideration ought to be given to teaching the body to perform without having to rely upon systemically disruptive additive fuel.

Let us consider the oft-regurgitated mantra that “we must train slow to teach the body to burn fats.” Must we really?

In my opinion, traditional LSD base-training combined with what I view as excessive caloric minimum RTAs (recommended training allowances) promotes inherent fuel-burning inefficiency. To train slow while also teaching the body to ask for frequent food hand-outs is a recipe that teaches the opposite of what we wish to ultimately accomplish---to race fast while not having to somehow eat a banquet in arduous conditions.

It is unreasonable to expect that on race day, the illogical GSEAL (go slow & eat a lot) training method will allow us to be efficient fuel-burning racers. After-all, race day will see you racing at a harder and faster pace than the vast bulk of what all your training has been. It is axiomatic that your body will only do that which it has been trained to do.

GSEAL-bred athletes will either be more vulnerable to bonking because they will have trained their bodies to burn fuel inefficiently, or they will have to greatly complicate their race efforts by ingesting an even more inordinate amount of fuel than they have already practiced. I believe it is this combination of sub-optimal training and excessive RTAs that causes one to read of so many Ironman race efforts being derailed by fueling issues, gastric distress, bloated bellies, vomiting, overhydrating, etc.

M2 Fuel Burning Efficiency

Two-pronged strategy:

1. Practice controlled deprivation in training rides.
2. Unless you wish to race slow, structure training intensities that more closely resemble race pace.

Controlled Deprivation simply means waiting longer to eat during a training ride, and then eating sparingly thereafter. You are only to eat that which is necessary to avoid bonking. It is interesting to see how quickly the body adapts once it learns that there will not be early, frequent, and bountiful cheap fuel handouts.

How much one eats and how frequently with the controlled deprivation method is a function of fitness, practice, and the individual. Generally, it should not be necessary to fuel for rides of 2hrs or less. In the early season when your long ride might be 3 hours, you might take a gel or piece of bar (not the whole enchilada) but not until 1.5-2hrs have passed.

As the duration of the long ride increases along with your fitness, you can expand the duration of no-fuel rides as well as the time you wait before taking fuel on longer rides. Three hour rides with no fuel quickly become no-brainers. Longer rides of 5-6hr duration should see you waiting up to 2-2.5hrs before taking fuel, and you can then refuel sparingly with a gel or piece of bar every 45-60'.

In addition to teaching your body to be more efficient in its use of fuel, you will both develop a much keener sense of how far you can go on a given amount of fuel, along with better awareness of the warning signs that you are in need of more fuel. Knowledge of one's body is an integral part of being a successful endurance athlete.

The shorter interval quality based training that I advocate, in addition to being more time efficient and effecting better overall performance, also teaches the body to economize its use of existing fuel stores. Shorter focused intensity intervals (1.5-3min) with relatively short rest intervals (15-60sec) mean that the workout is still aerobic (enhanced aerobic in m2 parlance), and thus muscle glycogen is spared despite the more focused work effort and faster speed.

Done properly, enhanced aerobic interval progressions can be performed for many months while improving throughout. With over fourteen years of experimenting with this type of training, I have observed the following:

- My body has become extremely fuel-efficient over the years, to the point where I can routinely perform 100m rides with no fuel beyond my fluid replacement drink.
- Workout time can be compressed considerably. One hour spent with Enhanced Aerobic interval work translates into allowing me to ride steady-state on the roads for 3 hours.
- Workouts are varied, interesting, and purposeful, and obviate the need for 2-3hr indoor grind-a-thons. It continues to amaze me that so many people and coaches torture themselves with indoor sagas that are both tedious and relatively unproductive. Herd mentality I suppose.
- Race day nutrition does not become a feared 4th event complete with complicated strategies, execution plans, and all the unnecessary worry that goes with this.

Summary

The time and effort spent devising complicated caloric formulas and ratios and then trying to figure out how to cram it all down is treating a symptom instead of the underlying issue. Endurance athletes should consider ways to make themselves more fuel-efficient warriors versus simply throwing food and calorie-counts at the problem and creating other troublesome side effects in the process.

Can the simple and logical, yet counterculture methods I describe work? Well, if racing Ironman events is to test the limits of human performance, then I am able to reference 14 years of Ironman events and training, and say that the proof is clearly in the pudding!

Biggest Whopper, and what motivated me to write this article as I just couldn't take it any longer:

As part of the discussion thread on fueling for a ½ IM, one *coach* described his typical ½ IM breakfast as the following:

“a bagel, 2-3 bananas, a pear, cottage cheese, 2 hard boiled eggs, 1 serving of Sustained Energy, and shot of Hammergel...”

What would this gorged fellow do for a full Ironman event?! While it is generally a good idea to top off the fuel tank with a light breakfast of some sort, no properly trained athlete, regardless of weight or ability, should have to consume what this coach practices as pre-race nutrition.