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Not all Sports Fuels are The Same – Or are They?

When it comes to fueling for sport with carbohydrates, that is definitely what the body prefers. Study after study has demonstrated this.

But with all the choices out there, manufacturers must find some way to differentiate themselves. Some products, based on their ingredients claim to have 'low sugar' and 'complex carbohydrates'. Complex carbohydrates are the fuel of choice over longer periods (3+ hours) of exertion, while simple carbs are more useful for short-term (1-3ish) hours of exertion. Yet some companies are out to trick you on this matter. Because of its chemical structure, maltodextrin (also known as 'glucose polymers') can be called a complex carb. Structurally, it is a long chain of glucose (simple carb) molecules hooked together. However, the trick is that maltodextrin is rapidly broken down into glucose molecules in the mouth...so essentially when one consumes maltodextrin; they are really consuming glucose, a simple carb in the end.

Why does this matter? Well, for two reasons. The first is that when products use maltodextrin, their label can legally reflect that it contains very little or no sugar. This is not accurate, as the maltodextrin, once digested by the saliva, behaves exactly like 'sugar' in the body, because it is sugar!

Secondly, one may be fooled into thinking they are benefiting from the energy profile of complex carbs when consuming maltodextrin-based products. They are not, and this is a perfect way to bonk while out on a century ride or longer triathlon. While most can get by on simple carbs for several hours, complex carbs and protein are necessary when activity approaches 3+ hours, for optimum performance.

There's nothing wrong with maltodextrin itself - the problem lays in shifty marketing/labeling claims that are aimed to do one thing – fool you into thinking what you are buying is something other than what is in the package. Not cool.

Acid-Base Balance

The internal environment of your body maintains its pH, or acid-base balance, within a very specific range. There is good evidence accumulating that shows an overly acidic internal environment can predispose one to inflammatory conditions (tendonitis, bursitis, joint pain, etc), cramping and even cancer.

There are several factors that affect your internal pH, and fluctuation is normal to an extent. However one should strive to keep acidity to a minimum; athletes can be prone to more acidic internal environments chiefly from the metabolic by-products of exercise – lactic acid and hydrogen ions.

One of the best ways to keep acidity to a minimum is by consuming a plant-based diet. No, I am not advocating you become a vegetarian because of this, but do keep in mind that animal products (dairy, meat) are acid producers in the body. And for you vegetarians, brown rice is one of the most acid-producing foods out there. Should you stop eating all of these? No. Just add more plants (green leafy, fruits) to your diet and keep the inflammatory foods to a minimum. When you do eat inflammatory foods, bump up your plant consumption to counteract the net overall increase in acidity.

I encourage everyone to balance out their acidity by making some changes to their diet, especially those plagued by chronic inflammatory conditions (any kind of -itis, asthma, allergies, cancer, fatigue, cramping, etc.) Here's what I do personally: After a long ride or run, my recovery drink consists of the following:

- 1 apple
 - 2 carrots
 - 2 celery sticks
 - 1 small bunch parsley
 - Handfuls of mixed greens (spinach, etc)
 - ¼ medium cucumber
 - 1 scoop of 'Greens First' or other 'green drink powder'
- Add ice and water; blend...in a vitamix or other blender.

This concoction actually tastes good, gives me a ton of energy, both complex and some simple carbs for recovery, lots of antioxidants, fiber, and of course reduces the exercise-induced acid in my body. Good stuff!

Is it as good as a cold beer? No of course not, but it is so good for you, and the immediate benefits it offers makes this one of my daily beverages.

Birth Control Pills, Bad Moods & Carb Cravings...

Birth control pills are well known to lead to low levels of a key amino acid, tyrosine, and a key B-vitamin, B-6.

Both tyrosine and B-6 are precursors to the main neurotransmitters norepinephrine and dopamine. When levels of these neurotransmitters are down, a person can experience poor moods and increased carbohydrate (chocolate, bread) cravings, which in turn may contribute to bloating, weight gain, feelings of guilt and worsened mood.

I recommend that any woman taking birth control pills supplement with at least 50 milligrams of B-6 each day (found in a good B-complex vitamin) to replace what is lost as a result of taking the pill. If mood disturbances are problematic, tyrosine can be taken as well. Of course, run these suggestions by your nutritionally oriented doctor, just to make sure nothing else is interfering. Tyrosine can improve thyroid function leading those taking thyroid medications to decrease the dose (with a doctor's supervision).

These simple nutrient interventions can make a woman feel A LOT better!

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