

Engineered Sports Foods: Convenience or Necessity?

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To look at all the ads for sports drinks, energy bars, electrolyte replacers and sports candies, you'd think these engineered products are a necessary part of a sports diet, particularly if you are doing endurance exercise such as training for a marathon or a triathlon. When my clients ask for advice about how to use these products, I first assess their daily sports diet to determine if they can get—or are getting—what they want from standard foods (carbs, sodium). In most cases, they can get their needs met with a wisely chosen sports diet.

While there is a time and a place for engineered sports foods (particularly among people who train at a high intensity), many athletes needlessly waste a lot of money misusing them. The purpose of this article is to help you become an informed consumer, so you can wisely spend your hard-earned money.

Pre-Exercise Energy Bars

While fueling with a pre-workout PowerBar and Gatorade (\$2-\$3) is one way to energize your workout, you could less expensively consume 300 calories of banana+yogurt+water (\$1) or pretzels+raisins+water (50¢). Any of these choices are carbohydrate-rich and will offer the fuel your muscles need for a stellar workout.

The best pre-exercise snacks digest easily, settle well in your stomach, and do not talk back to you. Standard supermarket foods can do that as well as engineered foods. Experiment to determine what settles best in your body.

Energy Drinks

There's little doubt that Red Bull and other energy drinks are popular, particularly among folks who use them for alcohol mixers. The 110 calories of sugar “helps the medicine go down” (for those who don't enjoy the taste of certain alcoholic beverages). The resulting problem is wide-awake drunks who think they can drive themselves home—but then get into accidents.

For athletes, energy drinks are the source of enough sugar and caffeine to give you a quick energy boost. The problem is, one quick fix will not compensate for missed meals. That is, if you sleep through breakfast and barely eat lunch, having a Red Bull for a pre-workout energizer will unlikely compensate for the previous inadequate food intake. If you can make the time to train, you can also make the time to fuel appropriately, rather than rely on a quick fix.

Caffeine

A known “ergogenic aid”, caffeine enhances performance by making the effort seem easier. A pre-exercise caffeine-fix—especially if accommodated by carbs—can energize your workout. Here’s how the options compare:

Option	Caffeine (mg)	Cost
Coca-Cola, 20 oz	60	\$1.59
Red Bull, 8 oz	80	\$2.19
No-doz, 1 tablet	200	\$0.33
Starbuck's, 16 oz	300	\$1.94

Sports Drinks

Many athletes believe the sodium in sports drinks is essential to replace the sodium lost in sweat. Wrong. Sports drinks are actually relatively low in sodium compared to what you consume in your meals. Sodium enhances fluid retention and helps keep you hydrated, as opposed to plain water that goes in one end, out the other.

If you are sweat heavily, you might lose about 1,000 to 3,000 mg sodium in an hour of hard exercise. Here are options for replacing these sodium losses:

Replacements	Sodium (mg)	Replacements	Sodium (mg)
Endurolytes, 1 capsule	40	Cheese stick, 1 oz	200
PowerBar Electrolytes, 8 oz.	65	Pizza, 1 slice	500
Gatorade, 8 oz.	110	Salt, 1/4 teaspoon	600
Gatorade Endurance, 8 oz.	200	Soup, 1 can Campbell's	2,200

As you can see, there is no need for anyone to drink a sports drink with their lunch, because the soup or cheese sandwich have far more sodium than the small amount of sodium in the sports drink. By consuming some salty food such as eight ounces of chicken broth before exercising in the heat, you can get a hefty dose of sodium into your body before you even start to exercise. This has been shown to enhance endurance. (1)

Electrolytes

One triathlete reported using electrolyte replacers throughout the day. He then admitted he didn't even know what electrolytes are. I explained they are electrically charged particles, more commonly known as sodium, calcium, magnesium and potassium. Standard foods abound with electrolytes, more so than engineered sports foods—

Sodium Calcium Magnesium

Potassium

Endurolytes (1 capsule)	40	50		25	25
Nuun, (1 tab)	360	12	25		100
PBJ & milk	600	300	130	750	
Pizza, (1 slice)	650	200	30	220	

Vitamin Water and Vitamin-Enriched Sports Foods

Many engineered foods tout they are enriched with B-vitamins “for energy”. Yes, B-vitamins are needed to convert food into energy, but they are not sources of energy. Few athletes realize the body has a supply of vitamins stored in the liver, so you are unlikely to become deficient during exercise.

Athletes, who eat far more food—hence more vitamins—than sedentary folks, have the opportunity to consume abundant vitamins. A big bowl of Wheaties offers 100 percent of the Daily Value (DV) for B-vitamins. (Most cereals, breads, pastas and other grain foods are enriched with B-vitamins unless they are “all natural”.) Eight ounces of orange juice offers 100 percent of the DV for Vitamin C. In contrast, eight ounces of Energy Tropical Citrus Vitamin Water offers only 40 percent of the DV for C.

Sports Candy

I groaned when one runner told me she ate Sports Beans (\$1/100-calorie packet) for her afternoon snack. Like sports drinks, sports beans are designed to be taken during exercise. Regular jellybeans would be a far less expensive snack! She unlikely even needed extra sodium, given she ran for only an hour. Raisins, dried pineapple or grapes would make a healthier snack option

Conclusion

Not everyone uses sports foods to enhance their performance. Research on a simulated three-day adventure race suggests otherwise (2). When the racers were given a buffet of fueling options during this event, 86 percent of their calories came from supermarket foods (candy, pizza, sandwiches, soft drinks, coffee, bananas, etc.) as opposed to only 14 percent from engineered sports foods (sports drinks, gels, energy bars, protein bars). They reported standard foods tasted better and were more palatable. As an educated consumer, do you want to do the same?

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