

Soccer: Nutrition myths

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Think nutrition is an easy topic? See if you have the answers to these myths common in soccer.

1. Your performance in a game is not affected by what you eat

You would think this is true, from reading the scientific literature on just what soccer players eat. Nutritional recalls from the 1970s to the present show that soccer players choose a diet that is around 40% carbohydrates, 40% fat and 20% protein.

Virtually every study on athletic performance, be it a team sport or an individual endurance sport, shows that a diet rich in carbohydrates improves running performance. The more carbohydrates you eat, the more and faster you run, especially late in the game.

What is discouraging is that in the very early '70s, the Swedes showed that soccer players with low muscle fuel (glycogen) walk about 50% of the game. And that was 30 years ago. What might be even more discouraging is that over half of a national team in the 1994 World Cup thought food had nothing to do with their game. Players eat what is put in front of them.

2. Sports drinks are just a product of marketing; they are no better than water

No question that water is well understood by the active public. The days of fluid restriction during sports are long gone. But researchers have been looking at improving on water ever since the advent of Gatorade. The timing, volume, temperature and components of sports drink have been under continual study.

For example, a drink does no good if it stays in the stomach, so the concentration of sugars is limited. A drink does no good if it doesn't get from the small intestine into the blood, so there is an optimal concentration of salt in the drink. And a drink isn't all that effective if it doesn't stay in the body -- meaning that the volume of drink and salt concentration, again, are critical.

Plain water doesn't have these advantages. A well-formulated drink has the proper concentrations of sugars, salts, and micronutrients, making it more effective than water alone.

3. All sports drinks are alike, so just buy any of them

A lot of people think this, and the marketing of different drinks can lead to this perception. But a close look at labels will show vastly different drinks.

To start with, there are basically three completely different types of drinks: fluid replenishment drinks, carbohydrate replenishment drinks and energy drinks.

Fluid replenishment drinks are formulated to provide optimal concentrations of sugars and salts, leading to rapid absorption and retention of fluids in order to prevent dehydration and improve performance.

Carbohydrate replenishment drinks are designed to provide a fast source of carbohydrates that are rapidly absorbed by the intestines. These can be used during a game for extra fuel as well as right after play to start storing energy for the next day or game. The best drinks have a little protein in them that speeds the uptake and deposit of fuel into the muscle.

Energy drinks are highly caffeinated drinks that deliver a small bump in energy due to caffeine's effect on the central nervous system, not by adding any more fuel to the muscles. Plus, caffeine is a diuretic, so it can increase urine volume, and any urine loss of water during exercise is not good.

4. It doesn't matter what players eat after games

I go to games and tournaments and see some of the worst post-game feedings possible: soda, sweet drinks in soft packaging, potato chips, other salty snacks, chocolate, fries. You've seen it.

The smart team supplies food that will start refilling the muscles with carbohydrates at just the time that the muscles are most ready to receive a fresh supply of fuel; the first hour to two after exercise. And that food probably doesn't come in a bag.

A good supply of carbohydrates is needed, and it can come from a carbohydrate replenishment drink or other high-glycemic foods like bagels with jam/jelly, the ingredients for "chex mix" (not the premixed boxes from the store, but the ingredients minus the oil and toasting), pretzels, raisins (or other dried fruit). This is even more critical between tournament games when time is even shorter.

5. All athletes get enough protein from what they eat, so there's no need to look for other sources

While most every survey of the athletic diet shows that they get all the protein they need from food, there is a problem. The vast majority of protein is consumed in conjunction with fat. Marbled meat, ground beef, fried chicken in the skin all are examples of protein that is combined with lots of fat.

Red meat should be trimmed of fat, ground beef should be very lean, chicken should have the skin removed. But one place protein is often lacking is the immediate post-exercise meal. A little protein helps in storing new fuel in the muscles faster than when there is no protein. You can try to figure out a protein source (NOT from a fast food chain) or simply buy one of the carbohydrate replenishment drinks that contain protein.

6. Your body is the best indicator of when to drink

Now, that is true ... if you are a donkey, or a dog. The thirst mechanism of humans isn't as good.

In fact, the human thirst mechanism doesn't even kick in until you have lost about 2% of your body weight from sweating; a level where performance decrement begins to become evident.

Drink early (before play), every 15 - 20 minutes during play, and at halftime. Put water bottles along the sidelines, in both goals, supply during stoppages. Remember that playing in the cold is also dehydrating, so don't forget to push fluids even in cold weather.

There are likely more myths coaches, players and parents may be following, but by following some of the guidelines mentioned here will put your team at a significant advantage over the opposition.

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