Hydration

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In the heat of summer, we are often find ourselves at the ball fields, soccer fields, tennis courts, swimming pools, and FOOTBALL practices. There is no question to the intensity some of these sports demand physically. How do we know we are feeding our future athletic stars their optimum nutrition?

First thing to remember is that with children there are virtually no horrible foods. The food items that are totally off limits are those that cause some sort of bodily harm; like food borne illnesses or allergic reactions.

There are, however, sometimes foods and all the times foods. Being an athlete, there are definitely food types, times of ingestion, quality, and quantity of foods and fluids that will lead to enhanced performance.

Caloric needs vary depending on gender, age, height, and activity level. Specific needs depend on a 'per individual' basis.

Generally speaking:

Energy and nutrient needs should to be high and well balanced. With such a high intensity sport, chronic under eating might be a problem. Frequent high quality snacks and meals would be best to promote maximum output.

Carbohydrates are the primary fuel source for physical activity. Generally have 60-65% of your child's diet. There is a strong relationship between pre-exercise muscle glycogen and the level of intensity. This means try to have you child consume a higher carbohydrate diet all the time, not just right before a competition or a big game.

It is also very important to fuel up before practices. There have been many studies to prove carbohydrate feedings increase blood glucose levels to enable athlete's faster performances.

So how much should one eat before exercise?

Roughly speaking, 1gram/kg body weight for 1 hour before. 2-grams/kg body weight for 2 hours before, ECT…

This would equal to having a P.B. & J sandwich a few hours. before practice. Carbohydrates should be more nutrient dense. This means they should have increased fiber, vitamins, and minerals to ensure higher quality. Foods should also be in is most whole form when possible. For example, apple over apple juice or baked potato over French fries. Just remember to give your body adequate time for digestion or stomach discomfort might occur.

There are also many studies to show that when doing exercises for over 1 hour, especially when carbohydrate function is low. This means to try and have carbohydrates of 30 to 60grams (120 to 240kcals) every hour of food and/or fluid during the workout or game. When exercising for under an hour additional carbohydrate fueled drinks are not necessary, especially when weight is a concern.

However, if your child does not frequently studies show when provided with flavored sports beverages, fluid intake is significantly enhanced

So what is the best form of carbohydrates during exercise?

With fructose alone, it has been shown to pose abdominal discomfort in some people. Commercial beverages are better absorbed with all three carbohydrates; glucose, fructose, and sucrose. Gatorade is a good example.

Fruit drinks do not provide nutrient density and should be used as a sometimes food. I strongly recommend have it as a drink to be used during exercises times only. Off the fields, high quality of whole grains, nuts, lean protein, fruits and vegetables are wonderful staples for the entire family.

Now that your game is over and you just won your big championship, restoring muscle glycogen after your activity is equally as important! After a 90minute exercise 1.5grams/kg of carbohydrates and another 1.5gram/kg 2 hours later. Additionally small amounts of protein will help muscle protein synthesis.

Liquid or solid carbohydrates work equally with glycogen repletion.

What could be 15 grams of carbohydrates?

1 slice of bread, 1 oz cereal, ½ cup cooked pasta, rice, ½ cup cooked beans, 1 piece of fruit, and ½ cup of juice.

Sample reloads would be: Turkey with crackers, P.B& J., Low fat chocolate/skim milk, go-gurt, grilled cheese, Gatorade with slice of cheese.

Fluids are VERY important for children. Children produce more heat, sweat less, and do not adapt the heat as well as adults. Overall, most individuals have a blunted hydration mechanism so when you are thirsty; you are most likely already dehydrated.

How much should someone drink? Always try to drink with meals. Try to drink 1oz/10lb body weight of water 2 hours before. And about 20 minutes before exercise 6oz/10lbs of body weight. So urine should be light colored. Also try to drink every 15 minutes at practice. Following practice try to drink 24 oz per pound lost. To figure your fluid intake out just divide your pounds in half and that equals the amount of ounces you should have. For example if you weigh 120 lbs you should be consuming 60oz of fluids per day. Make sure you factor in 20% you already get from the foods you eat.

Make way for a safe and highly energetic summer!

In Good Health,

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Marie Dunford, Sports Nutrition. A Practice Manual for Professionals, 4th edition ADA 2006.