



## Sports Nutrition

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### **Introduction**

Fueling the youthful soccer player is an important part of training. Guiding players to make better choices not only for health, but also for sports performance can be challenging but is critical for the adolescent athlete. Therefore, the primary nutritional recommendation is straightforward: Eat healthy foods selected from the basic food groups with attention to increased calories to meet the demands of energy expenditure for their sport. Problems can occur when non-nutritious foods crowd out healthy foods or when one food group crowds out another. Timing of foods is also extremely important to insure the player is fully fueled and not fatigued for training or a game, as well as for studying and growth.

### **Hydration**

Adolescents produce more body heat at a given running speed and sweat less than adults. They are at a greater risk of dehydration than adults who do the same workout because they have a greater body surface area in respect to their body weight so they gain heat faster from the environment than adults. Drinking frequently during practices and games is extremely important for a moving soccer player and needs to become an automatic habit. All players need a reusable sports water bottle!

### **Supplements**

Nutritional supplements are usually not necessary if the athlete eats a balanced diet. There is minimal or no evidence that supplements help sports performance unless a nutrient deficiency exists. However, many soccer players, especially adolescents, have strong belief about certain foods that enhance performance. These beliefs deserve respect as long as they are within the limits of good nutrition.

### **TIMING IS EVERYTHING!**

Depending on the time before practice, do one of the following:

- 4-6 hours before exercise: large meal
- 2-3 hours before exercise: small meal
- 1-2 hours before exercise: liquid meal (caloric drink, soup, smoothie) or snack and water

Training or Game Time: low fat, low fiber, high carbohydrate energy bar and sport drink or gel with water

Hydration: 2 cups of water 1-2 hours before training

### **BE PREPARED!**

Be ready with food and drink for your player in their backpack, at practice and games, in your car, and in your refrigerator. Don't miss the "30 Minute Window" ... see "Post-Practice/Game Nutrition" below!

### **READING LABELS!**

When checking the labels of food or sports nutrition products, be sure and check for the "grams of carbohydrate" - carbs should be the largest percentage.

The first ingredient in sports nutrition products should be maltodextrin, glucose polymers or brown rice syrup. That is the glucose source muscles crave when exercising.

## ***Pre-Practice/Game Nutrition***

### ***“Carbo Loading”***

Pre-Exercise Snack/M meal: allow enough time for digestion, timing is everything! Familiar foods are best before competition and should be low fat, low fiber, moderate protein, HIGH carbohydrate and lactose-free if lactose intolerant.

Carbo Loading: even though carbohydrates are the main energy source during vigorous exercise, young players should be taught that the pre-game meal is not a “magic feather.” Building up glycogen (carbohydrate) stores with a healthy diet is the best strategy for decreasing fatigue and maximizing performance. The competitive advantage is in endurance events lasting more than 90 minutes and does not affect speed, but may decrease fatigue.

## ***During Practice/Game Nutrition***

### ***“Continuous Fueling”***

#### Amount and Timing

- 50–60 grams of carbohydrate every hour can help delay fatigue and allow soccer players to train harder and longer.
- 1 gram of carbohydrate = 4 calories, therefore take in 200–240 calories per hour, ESPECIALLY after the first hour. If the athlete was “topped up” before the start, he/she may not need much fuel in the first hour.
- Space out calories as much as possible – at least during halftime.
- Immediately Prior to Exercise – sport drink or gel and water.

#### Hydration

- Sweat rates can vary from ½ liter to over 2 liters per hour. Learn your sweat rate and hydrate accordingly. Sport drinks help with retention of water and electrolytes.
- Sweat Rate – To determine your sweat rate, weigh yourself before a practice workout. Workout for one hour without food or water. Weigh yourself in the nude again at the end of practice. For each two pounds lost, your sweat rate would be one liter per hour.

## **PRE-PRACTICE/GAME NUTRITION**

Low-Fiber Cereal  
 Toast or Bagels with Nut Butter or Fruit Spread  
 Pancakes  
 Yogurt  
 Bananas  
 Flour Tortilla  
 Fig Bars  
 Pasta with Tomato Sauce  
 Rice  
 Potatoes  
 Fruit Juice  
 Smoothies  
 Low fat, low fiber, high carbo energy bars, sports drinks or gels just before games  
 Hydration: 2 cups of water before training

## **DURING PRACTICE/GAME NUTRITION**

Bananas  
 Graham Crackers  
 Salted Pretzels  
 Orange Slices (a few)  
 Sports Drinks and Gels with Water are ideal  
 Hydration: keep up with your sweat rate

### ***Post-Practice/Game Nutrition “30 Minute Window” and Recovery***

GOAL – to replace lost fluids and lost energy (calories).

- Eat about 200 calories within the first 30 minutes following exercise – high carbohydrates. The ability of muscle to absorb carbs is greatest in this time frame following intense exercise.
- Small Meal or Regular Meal – within the next 2 hours.
- Some protein is necessary to repair and rebuild damaged muscles. A ratio of 1:3-4 (one part protein to three or four parts carbohydrate) is ideal.

#### Hydration

- Drink for your lost sweat – sports drinks help with sodium loss.
- For each two pounds lost, your sweat rate would be one liter (approximately two cups) per hour.

### ***A Word About Tournaments***

Tournaments offer a unique nutritional challenge for soccer players. Because multiple games are played in one day, there is not always enough time to refuel and rehydrate properly, and yet, not recovering will affect skill, speed and mental ability culminating in decreased performance and lost games. Planning is absolutely necessary. The athlete needs to have practiced refueling in training and needs to have available food and drink at the tournaments. Sports drinks are the easiest way to prevent dehydration and maintain carbohydrates for energy during and between games.

#### **POST-PRACTICE/GAME NUTRITION**

Chocolate milk (regular or soy)

Bagel with nut butter or fruit spread plus raisins

Yogurt with nuts and a piece of fruit

Turkey sandwich plus fruit

Crackers with low-fat cheese

Fruit juice

Granola-type cereal with nuts and berries

Bean and rice burrito

Sports Recovery Drink

Sports Bar

Hydration: two cups of water for every pound lost