

Soccer

Sports Nutrition for the Student Athlete: Soccer

By: Heather Mangieri, MS, RDN, CSSD

Nutrition and healthy hydration are important for all student athletes, but for those who play soccer, it's essential. That's because soccer is a highly demanding sport that combines moderately intense exercise with short, intense bursts of activity. Training involves exercises to improve strength, endurance, agility, and focus, because soccer players need all of those skills to perform at a high level.

Both professional and collegiate soccer games consist of two 45-minute halves with a 15-minute interval between each period. Youth soccer games are slightly shorter, with high school soccer consisting of two 40-minute halves and middle school comprising two 30 or 35-minute halves, depending on age. Overtime periods can also add time to the length of the game.

Nutrition Recommendations for Soccer

Since the sport incorporates both aerobic and anaerobic activity, soccer players expend a significant amount of energy during a game. On average, a 165-pound soccer player may expend more than 1,500 calories during one game. In order to consume enough calories to support the high energy expenditure of the sport, athletes will need to eat regular meals and snacks, and get extra nutrition before, during and after training and competitions.

Carbohydrates

The high-energy demands of soccer make carbohydrate intake a priority for players. When considering how many carbohydrates to consume, it's important to consider the playing time of athlete. In addition, food and fluid intake should be adjusted based on rest days, training and competition.

During training and competition, recommended carbohydrate intake is between 7 and 12 grams per kilogram per day. For a 165-pound (75 kg) student-athlete, that equates to 525- 900 grams of carbohydrate distributed throughout the day. That large range is due to the high level of variation among players. Positions that cover a lot of ground, like midfielders, will have a higher daily carbohydrate need than players who cover less ground, like goal keepers.

Though energy expenditure is much less on rest days, carbohydrate intake is still highly important for daily nutrition requirements and recovery. On days when no training or competition takes place, soccer players should still aim to get approximately 5 grams of carbohydrate per kilogram of body weight, for the day. For a 165-pound (75 kg) student athlete, that equates to 375 grams of carbohydrate. Include a variety of carbohydrate-rich foods such as breads, cereals, pasta, rice, fruits, vegetables and beans.



AMERICAN DAIRY
ASSOCIATION NORTH
EAST

AmericanDairy.com

     @AmericanDairyNE



Nutrition Recommendations for Soccer

Protein

Protein is another important nutrient for soccer players. It is essential for health and helps to repair muscle tissue that was broken down during training and competition. It also helps to build new muscle tissue. All humans need some protein; student athletes that participate in exhaustive, intense activity just need more. The recommended intake for soccer players is between 1.4 and 1.7 grams of protein per kilogram of body weight, each day. For a 165-pound (75 kg) student athlete, that equates to 105 - 127 grams of protein each day. Ideally, that daily intake should be evenly distributed between meals and snacks throughout the day.

Try to include a variety of high-quality protein sources such as dairy products like milk, cheese and yogurt, as well as lean beef, poultry, fish, and beans and legumes.

Fats

While carbohydrates are the primary fuel used for soccer players, fat also acts as a valuable energy source. The recommended intake for fat is dependent on your daily energy requirement, and that varies greatly from one student athlete to another.

There are two things to keep in mind when choosing how much fat to consume. Fat fills you up, and it can slow down how quickly your food digests. If your meal is too high in fat, it can cause you to eat too little of another nutrient. That's not going to help your sports performance. The key to eating enough dietary fat, without it causing you to under consume another nutrient, is to evenly distribute it throughout the day, between all meals and snacks.

Sources of fats include nuts, seeds, salad dressings, olives, avocados, butter and oils.

Daily Nutritional Requirements for Soccer

Based on a 165 lb. Student-Athlete (75 kg)

	Carbohydrate*	Protein	Fat
Daily Requirements (Rest Days)	5 g/kg/d	(1.4-1.7 g/kg/d)	Remainder of calories to meet daily energy requirement
Daily Requirements (Training & Competition)	7-12 g/kg/d	(1.4-1.7 g/kg/d)	Remainder of calories to meet daily energy requirement
Daily Total (Rest Days)	375 g/kg/d	105- 127 g	Varies based on daily calorie requirement
Daily Total (Training & Competition)	525- 900 g	105- 127 g	Varies based on daily calorie requirement
Per Meal (3 Meals/Day)	90- 135 g	25-30 g	~20-30 grams
Per Snack (3 Snacks/Day)	30-60 g	10-15 g	Minimum of 15 grams

*Please note: Additional carbohydrates may be needed before, during & after training or competition to meet daily requirement

Source: Sports Nutrition: A Handbook for Professionals



AMERICAN DAIRY
ASSOCIATION NORTH
EAST

AmericanDairy.com

 @AmericanDairyNE

Fueling And Hydrating Before, During And After Training and Competition

To meet the high nutritional demands on training and competition days, special attention must be paid to what is consumed before, during and after activity. Student soccer players will need to eat and drink even more, on those days.

BEFORE

Pre-Training/Competition

What you eat before soccer training or a competition is highly dependent on how much time you have. If you have three to four hours before you start, eat a well-balanced breakfast consisting of complex carbohydrates, protein and some dietary fats. That's plenty of time to eat, digest, absorb and metabolize your food. As you get closer to activity time, your meal size and composition should change. Limit fat and fiber, and replace your complex carbohydrates with easy digesting ones. Check out [Fueling For Competition Day](#) for some specific examples on what to eat in the hours and minutes leading up to competition.

DURING

During Training/Competition

It can be challenging to drink during a soccer game, especially for players that spend most of their time on the field. Be sure to start the game well fueled and hydrated and take advantage of every opportunity to drink fluids during the game. While water is a priority fluid most times, sports drinks are often recommended during a game. They provide fluid, electrolytes and carbohydrates all-in-one, and can be easily consumed during breaks. One gulp is equivalent to 1 ounce, so try to get 6-8 gulps each break.

AFTER

Post-Training/Competition

It is highly unlikely that soccer players will consume enough fluid during a game, so post-competition rehydration is a huge priority. Fluid, electrolyte and carbohydrate losses should be replenished immediately after competition. One easy way to refuel after a competition is by drinking [chocolate milk](#). It provides the important nutrients your body needs to support the recovery process. For additional ideas, check out these [10 post-workout snacks for after competition](#). Then when you get home, eat a full, balanced meal

Fluid Needs

Fluid is by far the most critical nutrient for soccer players – especially youth soccer players. Younger athletes do not sweat as much as older athletes, and the risk for dehydration and heat illness is high. This is especially true when competing in a hot and humid environment. Even small losses in fluid can negatively impact sports performance, mental function, motor skills and tolerance to heat. Soccer players need to keep fluid intake top of mind all day long.

Fluid needs can vary widely from one athlete to another based on level of activity and individualized sweat rate. It's important to begin hydrating early and drink often throughout the entire day. Start all activity well hydrated, and try to drink 4-8 ounces of fluid every 15-20 minutes during training and competitions. When training or competition is over, be sure to add extra fluids to help rehydrate.

Consuming a sports drink immediately before, during or right after training and activity will provide the body with additional carbohydrates and help to replenish electrolytes that were lost in sweat.

Other Considerations

Travel can make it difficult to maintain a routine and increases your reliance on fast food and convenience foods. Try to think ahead and pack healthy foods to take with you. Today, most fast-food establishments and convenience stores offer a variety of healthy options. The key is to choose the right thing! Look for items that you would make or eat at home such as containers of milk and yogurt, chicken, turkey or egg sandwiches, fruits and vegetables and nutrient-rich energy bars. Many sell pre-packaged snack trays with a variety of foods like cheese, fruit and nuts.



AMERICAN DAIRY
ASSOCIATION NORTH
EAST

AmericanDairy.com

 @AmericanDairyNE