# ACTIVE NUTRITION FOR **SOCCER**

Soccer requires a balance of endurance, speed, strength, agility and mental toughness. From conditioning at practice to high-intensity matches on the field, proper nutrition for all levels of training is key to performance.


## MEET KEELY WACHS

**An ex-collegiate soccer player, full-time dad and Clif Bar & Company employee. He trains an average of five hours per week and strives to compete recreationally in the sport and remain active with his kids.**

## Performance Priorities: Fueling Basics

### Carbohydrate

Carbohydrate is one of the most important fuel sources for a soccer player. It is needed before (to be stored in the muscles as glycogen to provide fuel to working muscles), during (for immediate energy needs), and after exercise (to replenish used muscle glycogen).

- **One to two hours before** practice or a game, eat a small snack that is rich in carbohydrate like a banana or sports bar. Aim for **15-30 grams**.
- **Half-time** is the perfect time to refuel your body with carbohydrate. For practice or games lasting longer than one hour, aim for **15-30 grams** of easily digestible carbohydrate (like a sports drink/gel/chew or orange slices) per hour.

### Protein

High-quality protein foods contain the necessary nutrients to encourage muscle growth and repair following a practice or match.

- In addition to carbohydrate, ensure your **post-exercise snack or meal** includes protein.
- Don't overdo it! Most athletes require **15-25 grams** of protein within an hour after activity.
  - o Greek yogurt with 1 oz almonds = 22 g
  - o Turkey sandwich = 25 g
  - o 16-oz bottle of chocolate milk = 16 g
  - o 2 hard-boiled eggs = 12 g
  - o CLIF® Builder's Bar = 20 g

### Hydration

Between the start of a match and half-time, opportunities to hydrate are limited. Dehydration may negatively impact a soccer player's endurance, speed and skill.

- Most soccer athletes require **13 to 27 ounces** of fluid per hour (about 20-40 ounces per 90-minute soccer match).
- Plan to hydrate with half of your fluids before the match and the rest at half-time as a visual reminder of how much to drink.

*"One of my biggest challenges is balancing my nutrition needs on high-intensity days. On these days, I try to eat nutritious, wholesome, carbohydrates and lean protein at every meal."* ***– KEELY***

## DID YOU KNOW?

Soccer players typically

**RUN 5-8 MILES**

during a match. While players sprint to make a play, most of this distance is covered at slower speeds.[1,2]

## Want a game day nutrition plan?

Work with a registered dietitian to use the **Active Nutrition Guide** at *www.clifbar.com/activenutritionguide* to develop a personalized game day nutrition plan.

# PERSONALIZED ACTIVE NUTRITION FOR **SOCCER**

Soccer players have specific day-to-day nutrition needs based on the intensity, frequency and duration of their training. The following steps can help you develop your athlete's own personalized nutrition plan.

*The following content is to be used by a nutrition professional. Consult a registered dietitian to determine your individual nutrition needs.*

## **STEP 1:** Calculate Energy Needs

Energy needs for soccer players will vary substantially based on height and weight, but are generally in the range of **2,400 to 4,000 calories per day**. Research suggests that soccer players use approximately **300 calories every 30 minutes** of training or playing.[3] Total daily energy expenditure (TDEE) takes into account resting metabolic rate (RMR) and physical activity level, while TDEE plus energy expended during purposeful exercise determines total energy needs.

### TDEE = RMR x Physical Activity Level (PAL)*

RMR for males (kcal/day) = (9.99 x weight in kg) + (6.25 x height in cm) – (4.92 x age in yrs) + 5

RMR for females (kcal/day) = (9.99 x weight in kg) + (6.25 x height in cm) – (4.92 x age in yrs) – 161

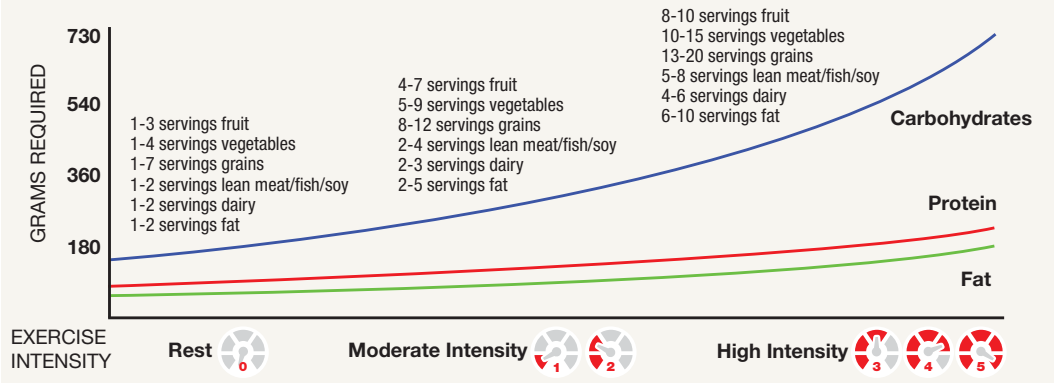
### Total Energy Needs = TDEE + Calories Used During Exercise

*Refer to the PAL factor table in the Active Nutrition Guide at *clifbar.com/activenutritionguide* for guidance.

## **STEP 2:** Create a Custom Meal Pattern

Use the calculated energy needs to create a personalized nutrition plan. As activity duration and intensity change, so do food and beverage needs. Carbohydrate, fat and protein needs will vary each day based on individual goals, activity length and intensity — adjusting meals, snacks and recovery nutrition for the day's needs will help optimize energy and performance.

### Macronutrient Needs Based on Exercise Intensity




### Meal Pattern Recommendations

(servings/day)

**CARBOHYDRATE**
50-65% of total calories

_____ Fruits
_____ Vegetables
_____ Grains / Starch

**PROTEIN**
10-20% of total calories

____ Lean Meat / Fish / Soy
____ Dairy
____ Legumes / Beans

**FAT**
20-35% of total calories

___ Oils
___ Nuts / Seeds

**SPORTS FOODS**

____ Sports Drinks
____ Chews
____ Gels
____ Bars

For more information on developing personalized, periodized meal plans, and for additional athlete examples, visit *clifbar.com/activenutritionguide* to download the **Active Nutrition Guide**.


### Author Bio

Christine Rosenbloom, PhD, RDN, is a sports dietitian who has worked with both men's and women's collegiate soccer teams for training and competition. She worked with the Atlanta Beat, a professional team of the Women's United Soccer Association, from 2001-2003.



[1]Macedonio, M. (2017). Nutrition for high-intensity, intermittent sports. In: Karpinski C & Rosenbloom C, eds. Sports Nutrition: A Handbook for Professionals, 6th ed. Chicago, IL: Academy of Nutrition and Dietetics, 466-490.
[2]Holoway, F.E. & Spriet L.L. (2011). Sports-specific nutrition: practical strategies for team sports. J Sports Sci, 29 (suppl 1), 115S-125S.
[3]USA Soccer. Nutrition Guide. Retrieved from http://www.recognizetorecover.org/nutrition-hydration/#nutrition-guide.
[4]Sports Dietetics Australia Fact Sheet Soccer. Retrieved from https://www.sportsdietitians.com.au/factsheets/food-for-your-sport/food-for-your-sport-soccer/.
[5]Institute of Medicine (2005) Dietary reference intakes: For energy, carbohydrate, fiber, fat, fatty acids, cholesterol, protein and amino acids. Washington, D.C.: National Academy Press.
[6]U.S. Department of Health and Human Services (2008). Physical activity guidelines for Americans. Retrieved from https://health.gov/paguidelines/pdf/paguide.pdf.