



Flagstaff Revolution Nutrition Guide

Table of Contents

Table of Contents	1
Soccer-Specific Nutrition	1
Definitions	1
Macronutrients.....	1
Carbohydrates	1
Protein	1
Fats	2
Macronutrients for Soccer.....	2
Gameday and Tournament Nutrition	3

Soccer-Specific Nutrition

Soccer is a unique sport in terms of the metabolic needs it places on its players. The unique mix of aerobic and anaerobic periods of exercise, as well as the long duration of play, make proper nutrition vital to both your health and your performance. As such, this nutrition guide will discuss what types of foods you should eat, how much you should eat, and even *when* you should eat in order to remain healthy and perform at your highest level. Improper nutrition can lead not only to decreased performance but also an increased risk of injury, fatigue, and burnout (Steffl et al., 2019). Be sure to speak with your parents and your doctor about your nutrition plans prior to making any changes.

Definitions

Macronutrients

Macronutrients is a term used to categorize different types of food by the way they fuel our bodies. The three we will discuss are carbohydrates, protein, and fats.

Carbohydrates

For the purposes of this guide, carbohydrates are our main source of energy and fuel our bodies through various mechanisms. Carbohydrates can be found in many foods but the best sources of nutrient-rich carbohydrates are fresh fruits and vegetables as well as healthy grains like brown rice, oats, or whole-wheat pasta.

Protein

Protein is the building block for muscle and is necessary to help our muscles recover and grow after exercise. It can be most readily found in meat and other animal and dairy products.



Fats

Contrary to what you may think, fats play an important role in fueling our bodies and make up part of a healthy diet. In fact, kids burn more fat than adults and need more fat in their diets as a result (Kostyak et al., 2007). This does not mean that you should search out junk food in order to increase your fat intake. Rather it means that your diet should include an appropriate amount of healthy fats from foods like nuts, avocados, eggs, and cheese.

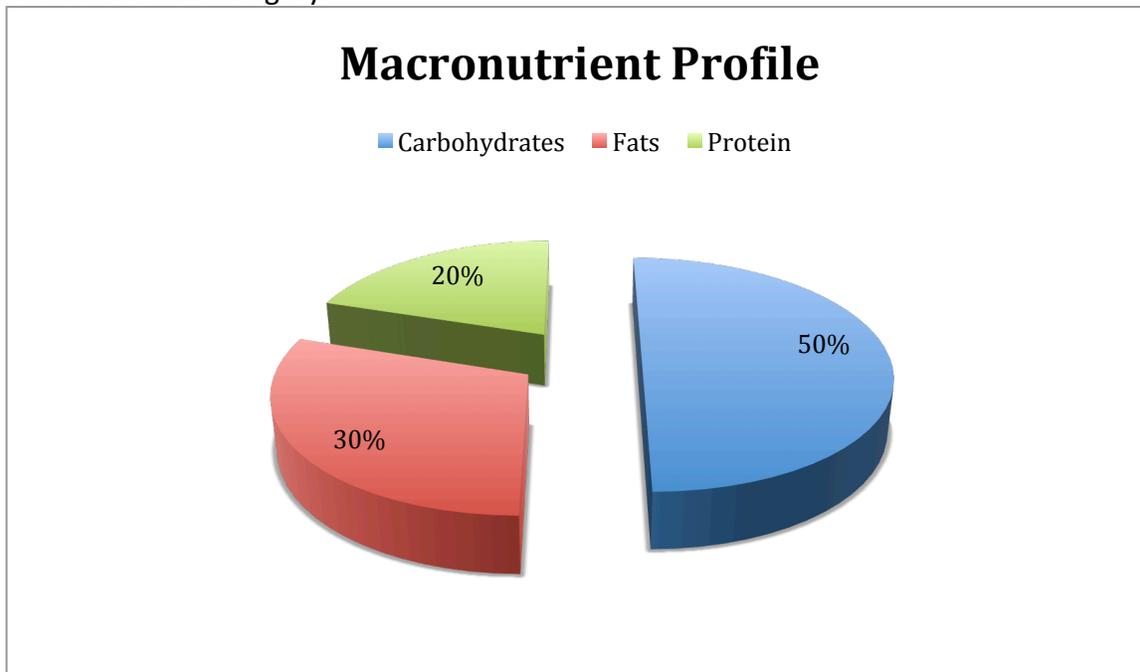
Macronutrients for Soccer

One of the most important energy sources for you as a soccer player is something called muscle glycogen. Your body stores glycogen in your muscles and uses it to power them during exercise. As you practice and play in games, your muscle glycogen becomes depleted and you have to refuel your body with nutrient-rich carbohydrates to be able to play again. As such, the majority of your diet should be carbohydrates. As your practices and games go on longer your body will begin to rely more and more on fat for fuel (Purdom et al., 2018). Last is protein. It is recommended that you eat 1 to 1.5 grams of protein per day for every kg of body mass you have (Stefll et al., 2019). Below, you can find a table to help you find your body mass in kg.

Kilograms (KG)	Pounds (LB)	Pounds (LB)	Kilograms (KG)
0 kg	0 lb	1 lb	0.45 kg
0.1 kg	0.220 lb	10 lb	4.54 kg
1 kg	2.205 lb	20 lb	9.07 kg
2 kg	4.409 lb	30 lb	13.61 kg
3 kg	6.614 lb	40 lb	18.14 kg
4 kg	8.818 lb	50 lb	22.68 kg
5 kg	11.023 lb	60 lb	27.22 kg
6 kg	13.228 lb	70 lb	31.75 kg
7 kg	15.432 lb	80 lb	36.29 kg
8 kg	17.637 lb	90 lb	40.82 kg
9 kg	19.842 lb	100 lb	45.36 kg
10 kg	22.046 lb	110 lb	49.90 kg
20 kg	44.092 lb	120 lb	54.43 kg
30 kg	66.139 lb	130 lb	58.87 kg
40 kg	88.185 lb	140 lb	63.50 kg
50 kg	110.231 lb	150 lb	68.04 kg
60 kg	132.277 lb	160 lb	72.57 kg
70 kg	154.324 lb	170 lb	77.11 kg
80 kg	176.370 lb	180 lb	81.65 kg
90 kg	198.416 lb	190 lb	86.18 kg
100 kg	220.462 lb	200 lb	90.72 kg
1000 kg	2204.623 lb		



Overall, you should aim for your diet to be 50% carbohydrates, 30% healthy fats, and 20% protein. If you are making healthy choices, your body should be well fueled and be able to recover from your practices and games. Check Appendix A for lists of healthy choices in each category.



Game Day and Tournament Nutrition

Game days and tournaments present a few unique challenges. Many times, players go without eating prior to games, as they feel sluggish if they eat a big meal prior to a game. Players should aim to eat about an hour prior to their game. Eating readily digestible fruits and potentially a fat is a good way to fuel your body prior to performance without eating anything too heavy. Eating a banana or an apple with peanut butter is a great option.

During tournaments, recovering your glycogen storages is of prime importance. Shortly after your first game (within 30-60 minutes) you should consume a nutrient rich, high-glycemic carbohydrate (apple, orange, banana, etc.). When consumed within this given timeframe the carbohydrates will work to rapidly restore your muscle glycogen and therefore extend your ability to perform in your next game that day. Researchers have found that chocolate milk is an effective recovery beverage when you need to quickly replenish muscle glycogen. Research shows that during follow-on exercise/performances, time to exhaustion is extended by 15-20% when recovering with chocolate milk or similar recovery drinks (Amiri et al., 2018). Given these findings, consider drinking a moderate amount (8-12 oz) of chocolate milk and eating a piece of fruit shortly after your first game.



The last part of game day nutrition to address is hydration. Be sure to drink water before, during, and after games—especially when playing in hot weather. If you choose to use a sports drink to help hydrate be sure to drink water as well.

A Word of Caution

Please don't take any information in this nutrition guide to mean you can pig out on "healthy foods" or eat anything you want as long as you maintain the appropriate macronutrient profile. Eating a large amount of potato chips because "children and teenagers burn more fat" will not help you—in fact it will likely hamper your performance. Drinking large protein shakes in excess of what your body actually needs is an example of good intentions that can also hurt. Any protein above 2.2 grams per day per kg of body mass will not lead to increased strength or muscle size and is likely just adding excess calories to your diet. Lastly, don't gorge yourself trying to hit any of these numbers. These are baseline recommendations and force-feeding (or starving yourself) will likely lead to unhealthy consequences.

The best advice is to eat a balanced diet that leaves you feeling satisfied and not stuffed. If you do this and your food choices are healthy, you will always be ready to perform.



Appendix A – Food Guide

Below are some lists of foods that are great and healthy options for each macronutrient. Your parents can help you brainstorm more and help you incorporate them into your diet.

Carbohydrates

Fruits

Apples, bananas, strawberries, oranges, blueberries, raspberries, watermelon, mango, grapes, kiwi, cantaloupe, tomatoes

Vegetables

Broccoli, romaine lettuce, cucumber, kale, carrots, green beans, cauliflower, celery, corn, beets, potatoes, yams, peas

Grains

Brown rice, oats, whole wheat breads and pastas, quinoa

Protein

Chicken, turkey, lean beef, fish, eggs, Greek yogurt, cheese, milk, tofu, black beans, whey protein

Fats

Dairy products (including milk and cheese), nuts and nut butters, avocado, eggs, chia seeds, coconut, olive oil



Appendix B – Example Average Day

Breakfast

Bowl of oatmeal topped with strawberries

Snack 1

Beef jerky, apple, and cheese

Lunch

Turkey and cheese sandwich on whole wheat bread, baby carrots and hummus, orange

Snack 2

2% Greek yogurt with granola

Dinner

Baked BBQ chicken, steamed broccoli, baked potato

***Note for game days and tournaments**

Be sure to eat your breakfast at least an hour before your first game. Following your game, consider eating a banana with some chocolate milk if you are preparing for a second game that day. Also consider adding additional fruits and vegetables throughout the day during tournaments to continue replenishing your muscle glycogen.



References

- Amiri, M., Ghiasvand, R., Kaviani, M., Forbes, S. C., & Salehi-Abargouei, A. (2018). Chocolate milk for recovery from exercise: A systematic review and meta-analysis of controlled clinical trials. *European Journal of Clinical Nutrition*, 73(6), 835-849. <https://doi.org/10.1038/s41430-018-0187-x>
- Kostyak, J. C., Kris-Etherton, P., Bagshaw, D., DeLany, J. P., & Farrell, P. A. (2007). Relative fat oxidation is higher in children than adults. *Nutrition Journal*, 6(1). <https://doi.org/10.1186/1475-2891-6-19>
- Purdom, T., Kravitz, L., Dokladny, K., & Mermier, C. (2018). Understanding the factors that effect maximal fat oxidation. *Journal of the International Society of Sports Nutrition*, 15(1). <https://doi.org/10.1186/s12970-018-0207-1>
- Steffl, M., Kinkorova, I., Kokstejn, J., & Petr, M. (2019). Macronutrient intake in soccer players— A meta-analysis. *Nutrients*, 11(6), 1305. <https://doi.org/10.3390/nu11061305>