Many athletes, parents, and coaches ask what is best to eat before, during, and after competition. However, another very important question is “What food and beverages are needed every day to maximize performance and is there a difference between the two?” Some experts say that sports nutrition can enhance performance up to 15%. I can tell you from personal experience we get amazing results when the athlete puts every day nutrition, competition nutrition, and training all together.

**Before**
- Male, 16yo, 5’11”, 195 lb
- Linebacker
- 12.8% body fat
- 3500 kcal/day—Eating too much saturated and trans fats, not enough healthy fats/calories/protein/fluids and nutrient timing off on every day eating and game day for maximum performance

**Goals**
- Decrease 40 yd dash from 4.87 – 4.6 seconds
- Gain 20 lbs of lean mass
- Get a Football Scholarship

**4 Month Follow-Up**
- Body Fat 12.2%
- 5800 kcal/day—Correct nutrient breakdown and timing for body type and activity

**Outcome**
- Gained 15 lb Lean Mass
- Decreased 40yd dash from 4.9 – 4.47 seconds

**Nutrition**

Whatever your goal, the following EVERY DAY nutritional guidelines are the basics for helping you get there.

1. Eat and drink within an hour after you wake up. Whether you get up at 6 am or 11 am, it is important to replace the water and carbohydrates you lost while you slept. Both these nutrients are important for energy, metabolism, and optimizing performance (1,5).

2. Get the right amount of calories and nutrients for your body type and sport. Usually an athlete that has a lower body fat burns more calories (energy) and utilizes more carbohydrates. I highly recommend you get your resting metabolic rate measured for accuracy. We have found the amount of calories you burn at rest varies greatly from one athlete to the next. This is important so you maximize recovery and your performance goals.

3. Eat enough protein to optimize repair, building, and maintenance of muscle tissue. The minimum amount of protein an athlete needs is 1.4 g of protein per kg of body wt (3). Please spread this amount evenly throughout the day so the muscle always has protein at its disposal.

4. Watch the empty calories. In my office we call them “Freebies”. Chips, candy, soda, sweets, fast food, fried food, sugary cereals and bars, high saturated fat items, and processed food are generally high in calories and/or fat, and low in nutrients. Most athletes consume 3-5 freebies a day, if not more. These types of calories do not assist in muscle building, recovery, immune system; wound healing and low body fat.
5. Proper hydration. Hydrating has been proven to aid in protein synthesis, fat burning, strength, speed, power, and fatigue resistance (2,4). A quick method to determine how much water you should be drinking is take half your weight and that is how many fluid ounces you should drink a day, not including workouts.

6. Eat within 30min after weight lifting or a hard workout. For maximum recovery of carbohydrate storage (muscle glycogen) and to promote muscle recovery and building, you should eat a minimum of 6-10g of protein and 30-60g of carbohydrates. It is highly suggested you work with a dietitian who has an emphasis in sports nutrition to get more exact numbers.

### Game Day Nutrition

Game day nutrition has three significant changes.

1. Game day nutrition starts the day before. When it comes to sports nutrition, hydration and carbohydrates are the two most important factors that affect performance. Both have limited storage capacity and the body is constantly losing both throughout the day. It is very important that your body is full of both before you go to bed the night before. Think of it like a gas meter.

2. Eat enough calories. If you are an athlete who needs 4000kcal in a day, then you will need 4000kcal the day of the competition. However it does not help to get the majority after the event. The goal is to eat every two to four hours and to have two thirds of your calories before 4-5pm.

3. Fuel mixture is different. The day of the event you will get more of your calories from carbohydrates and liquids than proteins and fats. Proteins and fats have minimal needs especially before and during the event.

### Bonus

Never try anything new the day of competition. You never know how your body is going to react. You worked to hard to take the risk.

### Where do you begin?

Sports nutrition can impact performance if utilized correctly. The problem is very few people seek out a professional to calculate their individual needs. If you are serious about adding the nutrition component please seek assistance from a dietitian with an emphasis in sports nutrition.

### References


### About the Author

Dawn Weatherwax-Fall is a Registered/Licensed Dietitian with a specialty in Sports Nutrition and Founder of Sports Nutrition 2Go. She is also an Athletic Trainer with a Certification in Strength and Conditioning from The National Strength and Conditioning Association. Therefore, she brings a comprehensive and unique understanding of the athlete’s body, and its nutritional needs, to those interested in achieving specific performance goals and optimal health. Weatherwax-Fall is also the author of The Official Snack Guide for Beleaguered Sports Parents and The Complete Idiot’s Guide to Sports Nutrition. She is an Official Speaker for the Gatorade Sports Science Institute and on the approval speaker list for the NCAA.