



Nutrition

Different Nutritional Plans for Different Athletes

Dawn Weatherwax-Fall, RD/LD, ATC, CSCS

What are your goals? Do you want to better your time for the half-mile, train for a regional karate meet, decrease your body fat, or better your cardiovascular health? Whatever your goal, the following nutritional guidelines are the basics for helping you get there.

Eat Regular Meals Beginning With Breakfast

Eating breakfast gets you started in the morning. When you fuel your body in the morning, you are providing the energy for your muscles and brain cells to function at their best. This method allows your blood sugars to remain constant, allowing the hormone glucagon to be released to metabolize fat. If blood sugars fluctuate, it is difficult for this to take place. Also, if your energy levels are constant your practices will more likely be consistent. You perform the way you practice. What you do every day nutritionally will make the biggest difference.

Eat Enough

Three Out of Four Student Athletes May Not Be Getting Enough to Eat

(2). A 2004 study found that out of 345 women and men involved in competitive sports, 70% of the women and 73% of the men were not getting enough total calories. Only 81% of the women and 90% of the men were consuming enough carbohydrates and just 68% of the women and 81% of the men were eating enough protein based on USDA guidelines. Intakes of salt, total fat, saturated fat, and cholesterol often exceeded recommendations, even in diets deficient in major components. Many students felt they needed to lose weight, and sub-clinical eating disorders were common. Inset 1 shows caloric requirements based on body weight for different weight goals.

Balance Your Macronutrients

Always try to have a mix of carbohydrates, protein, and fat at each meal. This will ensure that you get the nutrients you need and also get a constant amount

of energy. Carbohydrates tend to be absorbed into the bloodstream more quickly than protein and fat, and certain kinds of carbohydrates are absorbed

faster than others (1). By mixing your foods, incorporating faster-absorbing foods with foods that do not get into

Inset 1.

Caloric Requirements per Pound of Bodyweight *(based on weight goals)*

Fat loss = 12 – 13 calories per lb. of bodyweight

Maintenance Total Daily Energy Expenditure = 15 – 16 calories per lb. of bodyweight

Weight gain = 18 – 19 calories per lb. of bodyweight

the bloodstream as fast, you can create a more constant energy stream.

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 we survey consume three to five freebies a day, if not more. These types of calories do not assist in muscle building, recovery, immune system, or wound healing.

Watch Portion Sizes

Very few people know what a portion size really is. Too much or too little can make a very big difference in reaching your goals. I suggest you measure your food for one week. Do not change the portions you would normally eat, just load them into measuring cups or spoons before you eat them. Keep a running record as you do on a notepad or index card. Total everything at the end of each day or at the end of the week and then compare the number of portions you have eaten to the recommended amounts. Inset 2 lists portion size estimations for several different foods.

Fueling for Short-Term Events

Short-term events include activities that only last up to about four minutes, which means your energy source comes from glucose or glycogen (1). Table 1 lists recommended nutrient balance for short duration event athletes.

Fueling for Intermediate-Length Events

These are sports that last anywhere from four to nine minutes and maybe longer. They also use glucose/glycogen for their main energy source. Due to the high intensity and short duration, fat fuel is not used for energy. Table 2 lists recommended nutrient balance for intermediate duration event athletes.

Long-Duration Events

These activities last for more than 10 minutes. These activities use carbohydrates and fat metabolism to fuel their sport. Table 3 lists recommended nutrient balance for long duration event athletes.

With all of these events, it is extremely important to be well fueled and well hydrated, so what you eat prior to the day is also part of the plan. Starting with optimal levels is imperative to each type of event.

Where Do You Begin?

Sports nutrition can enhance performance if utilized correctly, however where to begin can be difficult. Start off making one or two changes a week. The “All or None” technique tends to fail with most athletes. The goal is to retain the new habits while continuing to make new ones. If you want to go full with the nutrition piece, I highly recommend you seek professional help from a Dietitian that emphasizes in sports nutrition.

References

1. Berning J, Nelson Steen S. (1998). *Nutrition for Sport & Exercise 2nd Ed.* Gaithersburg, Aspen Publishers.
2. Hinton P, Sanford T, Davidson MM, Yakushko O, Beck N. (2004). Nutrient intake and dietary behaviors of male and female collegiate athletes. *International Journal of Sports Nutrition and Exercise Metabolism*, 14(4):389 – 390.
3. Weatherwax D, Weiss S. (2003). *The Complete Idiot’s Guide to Sports Nutrition.* New York City, Penguin Group.

Inset 2. Approximate Portion Sizes for Some Common Foods

- 1 oz. meat = size of a matchbox
- 3 oz. meat = size of a deck of cards or bar of soap (The recommended portion for a meal)
- 8 oz. meat = size of a thin paperback book
- 3 oz. fish = size of a checkbook
- 1 oz. cheese = size of 4 dice
- 3 oz potato = size of a computer mouse or tennis ball
- 2 Tbs. peanut butter = size of a ping pong ball
- 1 cup pasta = size of a tennis ball
- 2 oz bagel = size of a hockey puck
- medium apple or orange = the size of a tennis ball
- 1 cup chopped raw vegetables or fruit = baseball size
- 1/4 cup dried fruit (raisins, apricots, mango) = a small handful or shot glass full
- Cup of lettuce = four leaves

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.

Dawn is an active member in the American Dietetic Association (ADA), Sports, Cardiovascular, and Wellness Nutritionists Dietetic Practice Group (SCAN), American College of Sports Medicine (ACSM), National Strength and Conditioning Association (NSCA), National Athletic Training Association (NATA), and Greater Cincinnati Athletic Training Association (GCATA).



Table 1. Recommended Nutrient Balance for Short Duration Event Athletes

Nutrient Balance	60% Carbohydrates
Percent Fat	15 – 25
Percent Protein	15 – 25

Table 2. Recommended Nutrient Balance for Intermediate Duration Event Athletes

Nutrient Balance	55 – 60% Carbohydrates
Percent Fat	15 – 20
Percent Protein	15 – 25

Table 3. Recommended nutrient Balance for Long-Duration Event Athletes

Nutrient Balance	60 – 70% Carbohydrates
Percent Fat	20 – 30
Percent Protein	10 – 15