

Sports Nutrition

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The Athlete's Kitchen

"Nutrition is my missing link. I have my training down, but my eating needs help." Time and again, my clients express this concern when they fail to get desired results from their workouts. These busy people, who range from casual exercisers to competitive athletes, are eating at the wrong times, choosing the wrong balance of carbohydrates, protein and fat, drinking too little fluids, and consuming adequate iron.

The question arises: *How much better could these athletes perform?* The answer is: Lots better! The following article highlights some common missing food links, and provides solutions that can help you to avoid these pitfalls.

Missing link #1: Respect for the power of food

"You know, Nancy, too many athletes show up for training but they don't show up for meals. They might as well not show up for training..." These words, spoken by a winning Boston College hockey coach, are true, indeed. Instead of rushing to practice only to show up poorly fueled, you'd be better off taking 10 minutes from your training to fuel properly and be able to get more from your workout. Plan ahead!

Missing link #2: Eating enough during the daytime

The same athletes who show up underfueled for training are generally the ones who undereat nourishing meals by day, only to overeat "junk" by night. This pattern fails to support an optimal sports diet—nor long term health.

Why do so many athletes undereat by day? Some claim they are "too busy." Wrong. If they can find time to train, they can find time to fuel for training. Other athletes are purposefully restricting their food intake at breakfast and lunch with hopes of losing weight. In a survey of 425 female collegiate athletes, the majority wanted to lose 5 pounds. 43% of the women reported feeling terrified of becoming overweight; 22% were extremely preoccupied with food and weight. This fear that "food is fattening" certainly deters many athletes from fueling optimally. (Beals, *Intl J Sport Nutr*, '02)

If you are weight-conscious, pay attention to *when you eat*. Fuel adequately during the day, so you have energy to exercise. You will then be less hungry at the end of the day and be better able to "diet" at night (that is, eat less dinner or evening snacks). After dinner, get out of the kitchen, brush your teeth, go to bed early, and lose weight when you are *sleeping* instead of when you are trying to exercise.

Note: If you want to lose weight, you should not severely undereat. Rather, create just a small 100- to 200-calorie deficit. Little changes at the end of the day—like eating just 2 to 4 fewer Oreos—can knock off 100 to 200 calories a day and theoretically lead to 10 to 20 pounds of fat loss a year.

MISSING LINK #3: Eating the right amount of calories at evenly sized, evenly scheduled meals.

Too many athletes eat in a crescendo, with the biggest meal in the evening. The better plan is to divide your calories evenly throughout the day, eating every 4 hours, so you are always in the process of fueling-up or re-fueling. Example of a fueling plan for an active woman (or a dieting man):

Breakfast	7-8:00 AM	600 calories
Lunch	11-12 noon	600
Second Lunch	3-4:00 PM	500
Workout	5-6:30 PM	-600
Dinner	7-8:00 PM	700

If you have trouble listening to bodily cues that regulate a proper food intake, you might want to meet with a sports dietitian who can help you estimate your calorie needs and translate that calorie information into a food plan for a balanced sports diet. To find a local sports dietitian, use the referral network at www.SCANdpg.org.

Nutrition Issues in Underperforming Athletes

MISSING LINK #4: Eating an appropriate amount of fat.

Athletes who eat *too much* fat displace the carbs they need to optimally fuel their muscles. That is, if you fill up on cheese and oil in the fettuccini alfredo, you are not filling up on the carb-rich pasta. You'll end up with "dead legs."

Athletes who eat *too little* fat fail to replenish the fat stored within the muscles that supports endurance performance. A study with runners who ate a very low (16%) fat diet for a month reports they had 14% less endurance compared to when they ate a moderate (31% fat) diet. Their self-selected diets were supposed to offer equal calories, but the runners with the moderate-fat diet actually ate not only more fat but also more calories. The extra calories did not make them fatter, however. The runners had been undereating on the low fat diet and conserving energy, and less able to perform well. Conclusion: Including some (healthful) dietary fat in addition to adequate carbs and calories offers important fuel that gets stored within the muscles and can improve endurance performance. (Horvath *J Am Coll Nutr* '00)

MISSING LINK #5: Fueling before you exercise

If you think you have "no time" to eat before your workout, think again. Eating 100 to 300 calories of a pre-exercise snack *even 5 minutes prior to exercise* enhances performance, assuming: 1) you will be exercising at a pace you can maintain for more than 30 minutes and 2) you can tolerate food.

How much difference does this pre-exercise fuel make? Lots! In a study where the subjects ate dinner, and then the next morning exercised to exhaustion, they lasted 109 minutes with no breakfast, 136 minutes with breakfast (400 cal). That's quite an improvement! (Schabert, 1999)

In another study, athletes biked hard for 45 minutes, and then sprinted as hard as they could for 15 minutes. When they ate a 180-270 calorie snack *just five minutes before they exercised*, they improved 10% in the last 15 minutes. They improved 20% when they had eaten a meal four hours prior to the exercise, then a snack 5 minutes pre-exercise. This means: Eat breakfast and lunch, plus a pre-exercise snack and you'll have a stellar workout! (Neufer, 1987)

Even if you are working out for less than an hour, you should still eat a pre-exercise snack and drink water. Athletes who ate no breakfast, biked hard for 50 minutes and then sprinted for 10 minutes to the finish were able to sprint 6% harder when they consumed adequate water vs. minimal water, 6% harder with adequate carbs vs. no carbs and minimal water, and 12% harder with a sports drink (adequate carbs + water). (Below, 1995). Fueling works!

One way to organize your pre-exercise fueling is to plan to eat part of the upcoming meal prior to your workout. For example, if you exercise in the morning, enjoy a banana before your workout, and then afterwards refuel with the rest of your breakfast, such as a bagel and a yogurt. If you exercise at lunch, eat half a sandwich before you workout and then enjoy the rest of your lunch afterwards. For afternoon or afterwork sessions, enjoy a granola bar or some graham crackers pre-exercise, then refuel with chocolate milk.

Whatever you do, don't let nutrition be your missing link. Pay attention to what, when and how much you eat. You will always win with good nutrition!

Nancy Clark, MS, RD, CSSD (Board Certified Specialist in Sports Dietetics) offers private consultations to casual and competitive athletes in her practice at Healthworks, the premier fitness center in Chestnut Hill MA (617-383-6100). Her *Sports Nutrition Guidebook* (2008), *Food Guide for Marathoners*, and *Cyclist's Food Guide* are available via www.nancyclarkrd.com. See also sportsnutritionworkshop.com.