

Protein: Finding the Balance

Hey Coaches! Read what Nancy Clark has to say about protein and how she answers questions from athletes.



Confusion abounds regarding the right balance of protein in the sports diet. Gymnasts, rugby players, runners, and skaters alike commonly wonder 1) if a high protein diet is less fattening than a carbohydrate-based sports diet, 2) if protein is best for preventing hypoglycemia, 3) if they need extra protein to support the demands of their exercise program, and 4) if protein supplements are the most effective way to build muscles. The following article is designed to clarify some of this protein confusion and help you find the right balance of protein-rich foods in your sports diet.

Q: *I want to lose weight so I'll be a lighter, quicker athlete. I've stopped eating starches like potato, pasta, bread, and other fattening carbohydrates. But I wonder: what's the right balance of protein and carbs for weight loss?*

A: The current popularity of high protein diets for weight loss stems from protein's ability to curb hunger. That is, an egg-based breakfast takes longer to digest and can be more satisfying than is an equal number of calories from a plain bagel. By being satisfied, you'll be able to eat fewer calories, and thereby create the calorie deficit needed to lose weight.

Despite popular belief, carbohydrates are NOT fattening! Rather, EXCESS CALORIES are fattening—excess calories of carbs, protein, or fat. As an athlete, you actually need a carbohydrate-based sports diet to fuel your muscles, because only carbs get stored in muscles as glycogen. When your muscle glycogen stores become depleted through repeated days of hard training with too few carbohydrates to replenish the losses, you'll become needlessly fatigued.

Rather than eliminate carbohydrates (which are likely among your favorite foods), I recommend you consult with a sports nutritionist who can design a personalized food plan that will help you lose weight, maintain energy for training, and include your favorite meals. To find a local sports nutritionist, go to www.eatright.org and use the referral network of the American Dietetic Association.

Q: *I struggle with hypoglycemia, so I've cut back on carbohydrates to avoid "sugar highs and sugar lows." I'm eating protein with each meal but I am afraid to have potato, rice, and bread. I've heard these foods have a high glycemic index and quickly elevate my blood sugars, only to create an excessive amount of insulin that takes too much sugar out of my blood and makes me "crash." What's the right balance of protein to carbohydrates to keep my blood sugar stable?*

A: Of the athletes I counsel who complain about hypoglycemia, the vast majority simply underconsume calories at breakfast and lunch. They get light-headed in the afternoon not because of a reaction to carbohydrates, but because they failed to put enough fuel in their bodies and are running on fumes. The solution is not to limit carbs but rather to eat heartier breakfasts and lunches. These meals should include both carbs (for energy) and protein (for satiety)—such as milk with cereal, turkey on bread, and meat sauce with pasta.

Q: *I've stopped eating meat, and have chicken or fish about once a week in a restaurant. I eat mostly bagels, salads, pasta, and apples. Will this give me enough protein to support my exercise program?*

A: Likely not. Although bagels and pasta do offer a little protein, the protein is low quality and fails to offer all the amino acids needed to build muscles. Hence, you should complement these grains with a protein-rich plant food at each meal, such as peanut butter on a breakfast bagel, beans on the lunch-time salad, and tofu with pasta at dinner.

I counsel too many athletes who call themselves "vegetarians" but are actually just non-meat eaters who eliminate meat but fail to add in beans, soy, and other plant proteins. Their bagel & pasta diet is deficient in many nutrients that are essential for health and top performance including not only protein (for building, repairing, protecting muscles) but also iron (for preventing anemia), and zinc (for healing and strengthening the immune system). No wonder these athletes complain about chronic fatigue, poor recovery after exercise, colds they can't shake, and overall lack of energy. They also have visible signs of malnutrition: blotchy facial complexion and grayish coloring-both of which disappear once they balance their diet with adequate protein.

Q: *I want to bulk up, so I've started eating a protein bar and protein shake at breakfast and lunch (instead of cereal and sandwiches). My mom worries I'm eating too much protein. What's the right balance?*

A: To build muscle, you need adequate protein, extra carbohydrates, and, of course, resistance exercise such as lifting weights. Carbs fuel your muscles and give you the energy needed to perform the muscle-building exercise. If you eat too much protein by displacing, let's say, cereal with a protein bar, you'll not only fail to fuel your muscles properly, but will also fail to invest in optimal health. Displacing natural foods with engineered foods (protein supplements) limits your intake of the health-protective nutrients nature puts in whole foods.

To determine how much protein your muscles actually use, simply estimate your protein needs according to these targets:

Person — gm protein/lb healthy body wt.

Recreational exerciser, adult: 0.5-0.75

Competitive athlete, adult: 0.6-0.9

Growing teenage athlete: 0.8-0.9

Dieting athlete, low calories: 0.8-0.9

Maximum for all healthy athletes, including body builders: 0.9

Example: If you weigh 160 pounds and want the maximum acceptable protein intake (0.9 gms pro/lb), you'd need 144 grams of protein—an amount you could easily consume from a day's diet that includes 1 quart skim milk, 1 can tuna, and 8 ounces chicken breast.

I recommend protein supplements only in a few medical situations, such as for malnourished patients with AIDS or cancer, or clients with anorexia who refuse to eat other sources of protein. Few healthy athletes need to spend money on protein supplements; supplements have no magic ingredients. Even vegetarian athletes can get enough protein through plant and dairy foods. Wholesome food works fine!

Nancy Clark, MS, RD counsels both casual exercisers and competitive athletes at Sports Medicine Associates in Brookline, MA. Her popular Nancy Clark's Sports Nutrition Guidebook, 2nd Edition is available by sending \$20 to Sports Nutrition Services, 830 Boylston St. #205, Brookline MA 02467 or via her website, www.nancyclarkrd.com.