

# Sports Nutrition

Nancy Clark, MS, RD  
1300 Boylston St., Brookline, MA 02467

www.nancyclarkrd.com  
617-795-1875

---

## Sports Nutrition News from the American College of Sports Medicine (ACSM)

Want to fuel smarter, train better and improve your sports nutrition knowledge? Then keep reading! Here's some of the research presented by exercise physiologists, nutritionists and other health professionals at the American College of Sports Medicine's annual meeting (Denver, May, 2006).

**Childhood obesity** The rapid increase in childhood obesity is worrisome because so many obese kids are developing diabetes and heart disease—conditions associated with old age. One solution is to add exercise back into daily life. A safe and socially accepted way to do this is to organize a Walking School Bus in your neighborhood; a parent or hired college student chaperones the group of children.

Exercise can also be added into the school curriculum, but many schools are reluctant to do so. The assumption is less class time will contribute to lower test scores. Not the case. When students ate a free school breakfast, participated in 15 minutes of teacher-led activity each morning, and had mid-day recess *before* lunch, their test scores improved *plus* the teachers had 58% fewer discipline referrals.

**Weight:** Two contributors to undesired fat gain are sugar-sweetened soft drinks + a sedentary lifestyle. Contributors to successful fat loss include weekly weigh-ins, at least 30 minutes/day of (ideally, supervised) exercise, and daily food records. Standing more often also helps with weight management. That is, obese people—who tend to sit 2.5 hours more per day than their lean counterparts—can potentially save 350 calories per day. Get rid of the chairs?!

- Yes, achieving a healthy weight is important. But the desire to get *too* thin can lead to health problems. Among 80 varsity high school athletes at an all-girls school, 74% had at least one component of the Female Athlete Triad—a syndrome with loss of menstrual periods, disordered eating and stress fractures. Fifty-five percent ate inadequate calories, 30% had a history of amenorrhea, and 19% a history of stress fractures. Is *thin at any price* worth the cost..?

**Body image** While you are exercising at the gym, be forewarned: If you look at magazine ads with ultra-fit bodies, you may experience increased anxiety and depression, and a change of mood. Choose your magazines carefully!

**Fueling for exercise** If you are doing all-day exercise, plan to routinely snack more than eat meals. Forest firefighters who snacked all day consumed more calories, hence were able to be more active, than those who ate standard meals.

- Does it matter if you fuel yourself pre-exercise with carbs that are slowly or rapidly available (oatmeal vs white toast)? Two studies suggest no. A good bet: eat what settles well.

**Fluids:** Being dehydrated can not only change your mood but also hurt your performance. For example, basketball players who got progressively dehydrated performed progressively worse with shooting/sprinting drills. Drink well!

- Cyclists who replaced only one-third of their sweat losses during an 80-kilometer time trial were four minutes slower than when they drank *ad lib*, according to thirst.

- Even swimmers need fluids; elite swimmers might lose about .85 liter/hour but generally fail to replace that loss.

- Cyclists who drank enough *plain* water to replace 90% of sweat losses incurred while riding for two hours in the heat developed lower blood sodium levels— and a higher risk for hyponatremia. Better choice: a sports drink with sodium.

- Should your sports drink contain protein? Debatable. Protein changes the flavor, so athletes tend to drink less; sub-optimal hydration could hinder performance.

**Protein for recovery** The jury is out whether protein (or amino acids, the building blocks of protein) added to a sports drink enhances performance. But consuming a carb+pro beverage before or right after a muscle damaging workout does reduce post-exercise muscle soreness. Runners who took branch-chain amino acids (that readily convert into glucose for fuel) before and after each of three daily bouts of hard exercise reported less muscle soreness and fatigue. The researchers attributed this to having less muscle damage and inflammation.

- Does the amino acid taurine enhance energy? Doubtful. When cyclists consumed 2000 mg taurine (double the amount in a can of Red Bull) one hour before a 90 minute bike ride followed by a time trial, the taurine offered no benefits compared to the same beverage without taurine.

**Protein for building muscles** Some body builders wonder if a very high protein intake will affect their long-term health. An 8-week study with strength athletes who consumed 3 grams protein/kg (~1.5 grams pro/lb) showed no signs of damage to liver and kidney function. This equates to 210 grams of protein for a 154 pound athlete. That's 35 eggs!

**Ageing and exercise** Without a doubt, exercise protects and improves our mental function (to say nothing of our overall health). The question arises: How long will it be before doctors routinely prescribe exercise?

In a study of seniors > 65 years old who completed a 20-week exercise program, some of the subjects actually moved from the category "demented" to "normal." Now that's incentive to keep moving!

While we assume that exercise is good for our health, we may overlook the impact of injuries. A survey of 375 former D-1 athletes (of whom 41% had played football) indicates 36% of the former athletes vs 6% of non-athlete alums had limitations in exercise due to old injuries. Exercise wisely!!

Sports dietitian Nancy Clark, MS RD counsels casual and competitive athletes at her private practice at Healthworks, the premier fitness center in Chestnut Hill MA (617-383-6100). Her popular *Sports Nutrition Guidebook*, *Food Guide for Marathoners*, and her *Cyclist's Food Guide* are available at [www.nancyclarkrd.com](http://www.nancyclarkrd.com).