

SportsNutrition

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The Athlete's Kitchen

The American College of Sports Medicine (ACSM) is the nation's largest group of exercise scientists, sports medicine and sports nutrition professionals. Each year at the ACSM annual meeting, these experts present their latest research. Here's a small sample of the sports nutrition news for 2007.

Sweat: • Trained female cyclists retained more fluid when they consumed a sodium-containing sports drink before an endurance bike ride compared to a drink with almost no sodium. They also experienced less heat strain due to being better hydrated and they were able to exercise for longer (99 vs 79 minutes). Enjoying a few salty foods before your next long bout of sweaty exercise would be a smart choice!

• Sweat sodium losses can be significant. Elite soccer players can lose more than 2,400 mg sodium during a 90-minute game. That's 5 packets of salt! Salty sweaters can appropriately eat salty foods before, during and after hard exercise.

• *Sipping* on post-exercise fluids results in better fluid retention than *gulping* a large volume at one time. Hence, athletes should enjoy recovery fluids over several hours, rather than guzzle one big drink.

Caffeine • Caffeine should no longer be considered a diuretic with a dehydrating effect. Women who habitually consumed a low dose of caffeine (~110 mg/day) were given a higher dose (365 mg; similar to the amount in large mug of coffee). They did not urinate more over the course of 8 hours. The same holds true with caffeine during exercise. Tennis players who consumed about 200 mg caffeine had no dehydration problems—and they played better.

Fueling Before and During Exercise • Athletes often wonder what is the best source of fuel during exercise. Research suggests sports beans, sports drinks, and gels all offer similar performance benefits. Take your choice!

Weight • Of 860 Canadian adults who were surveyed for about 20 years, 57% gained more than 11 pounds (5 kg). They were less active than the 17% who lost more than 11 pounds and the 26% who maintained body weight within 11 pounds. To minimize weight gain with aging, be active!

• Among 142 girls who were screened at ages 9, 11, and 13 years, those who exercised to enhance health and well-being enjoyed exercise more than those who exercised to lose weight. Parents should encourage their daughters to enjoy an active lifestyle; this is more sustainable than using exercise as "punishment" for having excess body fat.

Body Fat • Body Pods are as good as underwater weighing for measuring body fat in college-age males. But, they are expensive. The less expensive (and almost as accurate) alternative is the skinfold caliper. Caliper measurements are preferable to bioelectrical impedance methods.

• Consumers who buy bioelectrical impedance scales (such as the Tanita scale) should know that leg-to-leg measure-

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ments tend to be more accurate than hand-to-hand measurements. However, skinfolds are still the more accurate of affordable ways for consumers to measure body fat.

• Research suggests the more meals a person skips, the higher his or her body mass index (BMI). A survey with 623 college students found that those who skip breakfast, in particular, tend to have higher BMIs than breakfast eaters. Another study reported similar findings: obese boys tend to skip breakfast more than their peers with a lower BMI. Why is this? Does infrequent eating contribute to a higher BMI? Or do people with high BMIs commonly skip meals?

Fluids • To listen to the media, you'd think every college athlete gets drunk every night. However, a college alcohol survey of 117 student-athletes found that 22% abstained from drinking alcohol, 68% described themselves as light-to-moderate drinkers, and 59% did not binge drink. By using this information to create new "social norms," freshman can learn they don't need to drink to "fit in".

Recovery • To recover from hard exercise, many athletes choose a sports drink. However, consuming equal amounts of carbohydrates from a "real" food, such as Wheaties with skim milk, also works—and offers far more nutrition.

• In the 2004 Hawaii Ironman Triathlon, 362 finishers ended up in the medical tent; this represents about 14% of the total field. Of these, 63% experienced one or more gastrointestinal (GI) problems. The most common problem was nausea, followed by vomiting, diarrhea & abdominal cramps. Males and females, fast or slow, experienced similar distress; the problems didn't correlate with race times or gender.

• Running in a 10K race or sprint triathlon increases the amount of free radicals and oxidative stress—but it also generates more antioxidant activity that can overcome the potential problem. Antioxidant supplements are needless.

Training • Women who are afraid to strength-train because they might "bulk up" can stop worrying and start lifting! In a 10-week study with women who lifted weights with just one arm, the trained arm became stronger, but not larger.

• Regular exercise can help night-shift workers sleep better. Exercise helps maintain the synchronization of normal circadian biorhythms. This can potentially help the workers feel better and function better during the night-shift.

• Getting married does not affect exercise levels, but having kids does—especially for men. New fathers and new mothers reduced their exercise time by about 4.5 and 1.4 hours per week, respectively. (But the trade-off is worth it!)

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