

Cross Country Training Information

Breakthrough Study Reveals New Guidelines Regarding
Running Hydration

Road Runner Sports Run Today Newsletter

Whether you're a novice runner or have been running (and perhaps racing) for years, you've surely familiar with the importance of staying well-hydrated. For years runners have been told that they needed to drink before feeling thirsty in order to avoid dehydration. However, the recommendations that runners, particularly those taking longer than 4 hours to finish a marathon, should drink "as much as possible" have changed. United States of America Track & Field (USATF) recently issued new guidelines regarding hydration.

New Hydration Recommendations

- Long-distance runners should consume 1 liter of fluid for every liter lost during a race or long training run, equaling a 1:1 ratio.
- Runners should begin races and training runs well-hydrated. You'll know you're well-hydrated when your urine is clear or pale yellow, not dark yellow.
- Drink only when thirsty during a race or long training run, not every mile or so.
- Rather than plain water, drink a sports drink that contains sodium and other electrolytes.

Why New Recommendations Now?

These new guidelines have been developed because of recent changes in thinking among scientists and researchers in the sports medicine community. Several runners have died in the last few years at marathons and the cause of death has been determined to be hyponatremia. Hyponatremia means literally "water intoxication." When you drink too much fluid, you flush much-needed sodium and other minerals out of your bloodstream. The lack of sodium and electrolytes can lead to seizures, fluid in the lungs, respiratory arrest and death if the runner is not given proper treatment

As more and more runners train for and enter marathons, the average finishing times are increasing. Scientists have determined that runners who take longer than 4 hours to finish are the most likely to develop this dangerous condition. Medical personnel at finish lines have often mistakenly thought that a fallen runner was suffering from dehydration and have pumped them full of more fluids, which only exacerbated the condition. But now that researchers have had a few years to learn about and understand what happens to the body when a runner ingests too much liquid, those situations can be avoided in the future.

Be self-sufficient on your long runs and use one of these great hydration tools:

The Sensible Approach to Hydration

Being sensible about hydration can help you avoid heat illnesses (heat cramps, exhaustion and stroke), dehydration and over-hydration.

- Drink fluids only until your urine is clear. It isn't necessary to keep drinking (particularly the night before a race) so often that you have the need to urinate every 15 to 30 minutes.
- On hot, muggy days try to avoid training during the late morning or early afternoon hours. Run early in the morning or in the evening when the air is cooler.
- Never train in a sweat suit or nylon suit during hot weather to acclimate yourself to heat training or to lose weight.
- Choose sports drinks containing sodium and electrolytes rather than plain water for hydration during training and racing.
- Drink enough of a hydration sports fluid to give you clear urine prior to a training run or race, then drink only when you start to feel thirsty.
- Monitor your body. Some people sweat more than others. Some people also lose more minerals in their sweat than others. If you're the kind of person who finishes a workout caked with white salt around your hairline and/or under your arms, you may need to take in more of a sports drink than someone who loses less.
- If you're running a marathon, pay attention to signals that you may be developing dehydration, over-hydration or a heat-related illness. If you start to feel woozy, overly fatigued, tingling in your fingers or toes and you feel a headache coming on, stop running and let medical personnel know that you need attention.

Staying In-Tune

As a runner you need to be in-tune with your body. Even if you never race, it's still important that you maintain the proper levels of sodium and minerals in your bloodstream. Everyone has individual needs; you may need to drink 6 oz of fluid during

a 25-minute training run, someone else may not need to drink at all during a 10k. Learn what your own body needs and adjust your fluid intake accordingly.

45 BEST FOODS FOR RUNNERS

Great choices to fuel your running and keep you healthy and energized to go the distance

by Marc Bloom

Is there any health issue more confusing these days than your daily meal plan? From fad diets to carbo-bashing to the debate over how much fat is good for you, it's getting harder to isolate the best foods—those that fuel your running and taste great too—to keep on your wish list each day. Wading through often conflicting advice, we runners have a dietary edge over the inactive. It's not that we burn so much energy that we can eat whatever we want. We got over that misconception long ago. But the energy we burn on the roads makes us crave the very foods that are good for us, with complex carbohydrates and whole grains and fresh fruits and vegetables leading the pack. Still, we're so busy getting through the day it's not always convenient to search for all the right foods. To help you determine your best choices and save you time on the run, I consulted leading dietitians, many of whom run themselves, offering their "greatest hits" for tasty, nutrient-dense, heart-healthy fare. Foods are listed by type and in random order.

Grains: More Filling, Tastes Great

1. **Oatmeal:** A serving of oats gives you plenty of carbohydrate and has a low glycemic index, providing sustained release of energy into the bloodstream, important for runners. Oatmeal is excellent for breakfast or an anytime meal. Add skim milk and sweeten with dried fruit like bananas or apricots for a nutritional bounty. Instant oatmeal offers much the same benefits as rolled oats. Avoid pre-sweetened brands which have high sugar content. Oatmeal also helps lower cholesterol in your body.
2. **Dark bread:** Breads dark in color like pumpernickel and lye have more fiber and whole grain than lighter breads. This holds true for bagels—go for dark choices.
3. **Quinoa:** This product is similar to rice but more delicate and flavorful and cooks in half the time. "It's a great alternative," says Chris Rosenbloom, Ph.D., associate professor of nutrition at Georgia State University in Atlanta. "It's a newer grain, providing a carbo-boost in place of rice or pasta." A 6-ounce serving of quinoa contains 132 calories, 23 grams of carbohydrate, 4 grams of protein and 2 grams of unsaturated fat.
4. **Buckwheat pasta:** Also known as soba noodles, they are a more whole grain noodle and higher in carbs than regular pasta. Add to soup or use in a veggie stir fry, suggests Rosenbloom.

5. **Whole wheal pasta:** This pasta has a heartier flavor and more whole grain and about three times the fiber as regular pasta. To boost your fiber intake and enjoy more textured flavor, combine whole wheat with regular pasta. All pasta raises your blood sugar level while maintaining it for a long time, making it essential fuel for all the miles you put in.
6. **Regular pasta:** Basic, no-frills noodles with marinara or meat sauce is excellent; for a lighter sauce, go for garlic and parmesan. It's the portion size that causes trouble. For runners, up to 6 ounces of pasta (a standard package is 16 ounces) is plenty. Restaurants tend to supersize pasta dishes; if so, take home a doggy bag.

Fish: Sensational Salmon

7. **Shrimp:** Don't worry about the high cholesterol content. It's cholesterol from plant origins that are not well absorbed by the body, says Rosenbloom. Shrimp is high in muscle-building protein and low in saturated fat. Have your shrimp boiled or in a stir fry with pasta for a complete meal.
8. **Crab:** Like shrimp, it is rich in protein and has a benign form of cholesterol that is not readily absorbed. Have crab meat or claws. Crabcakes are an excellent dinner selection when you're eating.
9. **Salmon:** Every dietitian's favorite, salmon is a PR food that should be eaten regularly and can be enjoyed in numerous ways: salmon steaks or filets, baked or grilled, in pasta or salads, as sandwiches or burgers, chowder or gumbo. Even canned salmon is good for you, advises Runner's World nutrition columnist Liz Applegate of Davis, California. "You obtain calcium from the small bones. I tell people who are too busy to cook to get canned salmon for salads, sandwiches and chowder." While salmon is an excellent protein source, the big bonus is omega-3 fats, which contribute to healthy cell membranes and are associated with reduced risk of heart disease.
10. **Mackerel:** Like salmon, mackerel is an excellent with Omega -3 fats.
11. **Sardines:** Also has omega-3 fats and is versatile for salads and sandwiches.
12. **Cod:** "For people who are not fish eaters," says Rosenbloom, "cod is mild, not as strongly flavored." Cod is high in protein and low in fat. And it's easy to make. Take out a frozen filet. Add cornmeal baiter for flavor.
13. **Tuna:** Treat yourself to the handy, portable tuna that now comes in pouches where you find canned tuna. You don't have to drain it. Pouch tuna is a quick protein meal. It tastes fresher than canned tuna, say the experts, and has omega-3 fats. When you're on the go, grab a tuna pouch, pita bread and some veggies and you've got a quick, nutritious lunch.

Fruit: Refreshing Fuel

14. **Bananas:** They're wrapped and convenient. They're versatile and ideal with cereal. Bananas have carbs and potassium, which runners lose through sweating and help regulate muscle contraction. "And when bananas are rotten," suggests Nancy Clark, author of *The Sports Nutrition Guidebook*, "cut them into chunks, put in the freezer, then blend with skim milk. It tastes like banana ice cream-you'd think it was Haagen Daz."
15. **Oranges:** One orange gives you all the vitamin C you need for a day. If peeling one is too messy for you, cut in sections and throw into a baggy for post-workout. Vitamin C helps heal the "micro-injuries" you get on every run. Orange juice (8 oz.) also does the job but an orange is better.
16. **Strawberries:** Have them fresh or frozen depending on the season. Rich in vitamin C, low in calories, taste great. Versatile as snacks, with cereal, on salad. Use frozen berries to make delicious, nutrient-rich smoothies.
17. **Cantaloupe:** Half a melon provides a day's worth of vitamin C. Melons are filling; just 100 calories will satisfy you. Melons are rich in beta-carotene, an anti-oxidant vitamin associated with lower risk of heart disease and cancer. Great post-run snack or, with cottage cheese, a light lunch.
18. **Mangoes:** Plenty of vitamin A and beta-carotene.
19. **Kiwi:** Supplies vitamin C and potassium. Low in calories.
20. **Fruit kabob:** Put a row of fruit, fresh or canned, on a skewer and have with a non-fat plain yogurt dip, suggests dietitian Lisa Dorfman of Miami, author of *Vegetarian Sports Nutrition Guide*. Add naturally-sweetened jam for additional flavor.

Vegetables: Bean Bonanza

21. **Beans:** The consensus favorite, beans are the salmon of the veggie world. Cooked *dry* beans like pinto, lentil, garbanzo and split pea are high in protein and fiber, a plant source of iron and low in fat. Beans are a great accompaniment to soup and stew. Rice-and-beans is a complete meal with carbs and protein.
22. **Baby Carrots:** The same multitude of benefits as regular carrots-vitamin A, fiber, low-fat and beta-carotene-but with the convenience of a handy snack, says Alysun Deckert, of the food and nutrition department at the University of Washington Medical Center in Seattle.
23. **Broccoli:** While Pres. Bush I was known for his avoidance of this vitamin-enriched food, Pres. Bush II, the runner, would certainly benefit from broccoli's potassium content after one of his 5-k efforts. Steam your broccoli or sauté in garlic and oil (but make sure it's still crunchy indicating the nutrient content is not lost).
24. **Cauliflower:** For time-saving convenience, get ready-to-eat bags of cauliflower, and also broccoli, and munch raw as snacks or add to salads.

25. **Asparagus:** As with broccoli and cauliflower, munch asparagus raw as a snack, add to salads or steam for a source of vitamin A and potassium.
26. **Lettuce:** Dark-leaf lettuce has vitamin C, vitamin A, fiber and iron.
27. **Sweet potato:** Though potatoes are technically a starch, they are permitted into the veggie family on a waiver. The orangey sweet potatoes have carbs and vitamin A and with toppings are big enough to be a meal unto itself, says Ellen Coleman, author of ***Eating For Endurance*** and nutritional consultant for The Sports Clinic in Riverside, California. As the name says, these potatoes are sweet; add a pinch of margarine or butter and you're good to go.

Dairy: Get a Milk Moustache

28. **Skim milk:** Provides protein, carbs, calcium and potassium. Milk protein is absorbed well, says Penn State dietitian Christine Clark, adding, "No one over the age of 2 needs anything but skim."
29. **Low-fat yogurt:** Any kind, plain or with fruit, provides calcium, protein, carbs. Grab-and-go food.
30. **Low-fat cheeses:** Versatile choices like provolone, mozzarella and feta cheese are excellent for salads, sandwiches and snacking. Provides protein and carbs.
31. **Frozen yogurt:** Great fruity dessert or instead you can have lower-fat ice cream, within limits. (Normal ice cream portion size is a cup-and-a-half. Sorry, you can't eat the whole container.)
32. **Milk-based soups:** Add skim-milk to soup, advises Christine Clark, to increase protein intake. Excellent for broccoli and tomato soup. These soups are considered "volumetric"-they fill you up on fewer calories.

Meat & Fowl: Darker is Better

33. **Lean roast beef:** With an abundance of vitamin B, iron and zinc (which aids in healing), lean roast beef is the most nutrient-dense red meat, says Nancy Clark. As in bread and lettuce, the darker the meat, the more nutrients it contains (and the added iron is especially important for women). Have a roast beef sandwich (dark bread, of course) for a power-packed lunch.
34. **Top round ground beef:** The top cuts of beef and sirloin are leanest and provide needed protein. Have as part of a meal-an accompaniment-for portion control. Add to a stir fry or burrito, says Liz Applegate.
35. **Chicken:** Have baked, grilled, or broiled but not fried. Lean protein but not as much iron as red meat.
36. **Turkey:** Similar to chicken. Have turkey sandwiches with tomato and dark-leaf lettuce for a nutrient-dense lunch.

37. **Lamb:** You'll get protein, iron and zinc in roast lamb but make sure you trim away the fat after.

Protein Alternatives: Go Nuts

38. **Soy milk:** It's fortified with calcium and vitamin E. Also for those who are lactose intolerant.
39. **Tofu:** Made of soybean curd, tofu contains protein, important for bone health and neuromuscular function, says Samantha Heller, PhD, senior clinical nutritionist at New York University Medical Center, and an exercise physiologist. Get ready-made soy burgers, suggests Applegate, and crumble into pasta sauce. One patty has about 70 calories and no fat and plenty of potassium along with protein. Tofu is rich in phyto-chemicals associated with reduced risk of heart disease and cancer.
40. **Nuts:** Have nuts, like almonds or walnuts, several times a week, urges Applegate. Nuts contain heart-healthy fat. Add to dried fruit like cranberries for a mini-trail mix.
41. **Peanut butter:** Get the natural kind with oil on the top and no added ingredients. Though high in fat (about 16 grams per serving), it's the good fat and there's no cholesterol. Peanut butter on whole grain or multi-grain bread makes a great breakfast, says Heller. Snacks: The 200 Calorie Dessert
42. **Rice crackers:** Crunchy, thin, digested well, give you energy, says Dorfman.
43. **Organic brownie:** Not as tasty as the real kind but only about 1 gram of saturated fat per serving and you get a good amount of carbs.
44. **Baked chips:** If chips are baked, not fried, there are only 110 calories per 1-ounce serving and no saturated fat. We said one serving.
45. **Chocolate:** "I eat chocolate every day," says Applegate. "Everyone is allowed up to 200 calories of their favorite treat daily." For example, 55 M&Ms, 20 peanut M&Ms or one Hostess cupcake (180 calories, which means you can also have 5 M&Ms).

Sidebar One: Quick Bites

*The darker the color of certain foods, like red meat, bread and lettuce, the more nutrients it contains.

*A healthy diet may include 2 to 4 portions of lean red meat per week.

*Red meat has roughly the same amount of cholesterol as in chicken or fish. Choose lean cuts to reduce fat content. Use the 80-20 approach to healthy eating: If 80 percent of your diet is nutrient-dense (a lot of nutrients per number of calories), then 20 percent can be lower in nutrient amounts.

*Studies show that eating fish one a week can reduce heart attack risk by about one-third.

*Protein is more important for runners than once believed. A 118-pound runner should take in 64 to 86 grams of protein per day. *Apples are good for you but many other fruits have more nutrients. Says Nancy Clark, "An orange a day helps keep the doctor away."

Sidebar Two: Nutritional No-Nos

*Pre-sweetened cereals: few nutrients and too much sugar.

*Fish-and-chips: high in fat and wastes your fish choice.

*Pure cream like whipped cream or sour cream (so have your baked potato with salt, pepper and parmesan): too much fat.

*Spare ribs: high in saturated fat.

*Iceberg lettuce: little nutritional value compared to other lettuce.

Sidebar Three: Steps To Improve Your Diet

Madelyn Fernstrom, PhD, director of the Weight Management Center at the UPMC Health System in Pittsburgh, suggests the following steps to improve your diet:

*Make small dietary changes because they'll last. Radical changes don't.

*Have 5 servings of fruits and vegetables a day. Any combination is okay. Canned fruit is acceptable. Choose foods of many colors: orange, green, red. A cup of salad counts as one vegetable. Corn, peas and potatoes are "starchy carbo" and don't count. You don't need enormous variety and don't have to like everything.

*Go to the market once a week and buy produce that's not going to rot quickly so they will be convenient to eat all week long. Keep a bag of apples in your place of work.

*Consider portable food like liquid protein shakes and energy bars when you're on the go. It's better than skipping a meal. Don't rely on it alone as a meal because you'll go hungry.

*Think before you eat. Avoid mindless eating. Acknowledge that you can choose to eat certain foods and not others. One study showed that the more food put in front of you, the more you eat. Don't eat just because it's there."