

Eat Like A Champion

To run your best, you need to eat differently than the rest of the population. Elite coach Chris Carmichael explains what should be on your plate.

By Kristen Wolfe Bieler

In the months leading up to the Tour de France, every aspect of Lance Armstrong's training regimen has a purpose. And that includes eating. He ups his caloric intake from 3,000 to 6,000 calories per day. The percentage of carbohydrates in his diet also increases (from 60 to 70 percent of his calories), while he slightly decreases his protein and fat intake. This finely tuned nutritional balancing act, which has helped Armstrong win five consecutive Tours, was designed by Chris Carmichael, Armstrong's long-time coach, nutritionist, and friend.

As an Olympic trainer and a former competitive cyclist, Carmichael, the founder of Carmichael Training Systems, has learned that athletes need to match their nutritional intake to the demands of their training in order to achieve peak performance. In his new book, *Food for Fitness: Eat Right to Train Right*, due out this month, Carmichael applies his nutritional principles to all types of athletes, particularly runners.

According to Carmichael, runners need to take a holistic approach to eating and training. "Diet and training are so closely intertwined, they can't be separated," he says. Runners' diets, therefore, need to evolve throughout the year to correspond with particular workouts. Essentially, Carmichael takes the training technique known as periodization (you break your training year into "periods" with different goals, then concentrate on specific training) and extends it to the training table.

The concept of periodization naturally translates to nutrition, because the amount of energy you burn changes as you go through weeks, months, and a full year of training. If you're eating the same number of calories all year, there is most likely a portion of the year when you're eating more food than you need. Likewise, there will be times when your training burns more calories and demands more nutrients than you are consuming. So just as your training focuses on different goals in different months of the year, you need to make sure you're eating enough food--and the right kinds of foods--to support your workouts.

But it isn't as simple as just eating an extra granola bar or two when you're running longer or harder. "Carbohydrates, proteins, and fats are tied together and linked to how you perform," says Carmichael. So on top of eating more calories as your training intensifies, the ratio of carbohydrates to fats to proteins in your diet needs to change as well. "If you are training for a half-marathon, for example, you need a greater percentage of carbohydrates in your diet than if you're just running for fitness," he explains. Like Lance Armstrong, when you're at the peak of your training, it's important to increase the percentage of carbs in your diet from about 60 to 70 percent to ensure you're giving your body enough fuel to enhance your workouts.

Not surprisingly, Carmichael cautions runners about popular low-carb diets. Slashing carbs can negatively affect a runner's health and performance. This is because carbohydrates are the body's high-octane fuel--the fuel it relies on for speed and power. Cutting carbs from your diet leads to depleted stores of glycogen (the form carbs take when stored in the body). Training in a glycogen-depleted state causes the body to struggle to maintain even low-intensity exercise, making it difficult to improve fitness.

Still, with all due respect to carbohydrates, Carmichael notes that protein is more important than once thought for distance runners because of the role it plays in helping to transport carbohydrates throughout your system. Protein is particularly crucial during your post-workout meal. "Recent evidence shows that adding protein to your high-carbohydrate post-workout meal enables the carbs to move more quickly into the muscles for faster refueling," he says. Carmichael advises a ratio of about 1 part protein to 7 parts carbohydrate, although it's more important simply to strive for a protein-carbohydrate combination than it is to achieve that specific ratio. A post-run meal of rice and chicken (heavier on the rice than the chicken) will get you what you need for a speedy recovery.

But good nutrition isn't about eliminating one type of food or nutrient in exchange for another. All foods have a place on Carmichael's table. It's just a matter of choosing the right foods, in the right proportions, at the right times, to yield the energy you need to run and live at an optimal level. His nutritional strategy even leaves room for indulgences, in moderation. Carmichael himself admits to bimonthly Ben & Jerry's binges. And Armstrong? It's said he goes for apple fritters whenever he can get his hands on them. Good luck finding those in France.

Periodization For Idiots

How do you apply the principles of periodization to your diet without complex nutrient calculations? Remember that the concept of eating more carbs during your heaviest training is more important than trying to adhere to specific numbers.

But when you're upping the miles, adding just one of these mini meals per day gives you the extra carbs you need to keep running strong.

1 cup vanilla yogurt + 1 cup fresh fruit (60 grams carbs)

Bonus Benefit: provides over 40 percent of your daily calcium needs

1 cup orange juice + 1 banana (52 grams carbs)

Bonus Benefit: packs almost 200 percent of the Daily Value for vitamin C

1 slice banana nut bread + 1 cup skim milk (about 45 grams carbs)

Bonus Benefit: gives you 25 percent of the Daily Value for calcium

1 PowerBar energy bar + 8 oz PowerBar Endurance sports drink (62 grams carbs)

Bonus Benefit: provides plenty of sodium and potassium to keep you well hydrated

Smoothie of 2 cups skim or soy milk + 1 1/2 cups strawberries + 2 Tbsp soy protein (about 50 grams carbs)

Bonus Benefit: contributes about 5 grams of fiber

1 1/2 cups multigrain cereal + 1 1/2 cups skim milk (54 grams carbs)

Bonus Benefit: contains over 100 percent of the Daily Value for iron

1 bagel + 1 banana + 1 Tbsp nut butter (about 75 grams carbs)

Bonus Benefit: provides 12 grams of protein