

Whether you are competing in your first marathon or your fifteenth, good nutrition can help maximize your performance and help you achieve your marathon goals. Here are some basics on how to fuel your body during training and beyond.

The Basics

Calorie Balance

Calorie needs depend on your body size, the distance you run, how fast you run, and your training schedule. Getting enough calories helps sustain energy during your long runs while getting too many calories can add extra weight. Most marathoners need 15 – 20 calories per pound to stay healthy and help prevent injury. For example, a 120 pound runner needs between 1800 – 2400 calories a day.

Get Your Carbohydrates

Carbohydrates are the main source of fuel for marathoners. During exercise the body uses glycogen, the storage form of carbohydrates, for fuel. To maximize muscle glycogen stores, eat a high carbohydrate diet (55 - 65 percent of calories each day). During training choose carbohydrates like whole grain cereals, pasta, brown rice, beans, corn and peas, fruits and vegetables. Whole grain foods provide B-vitamins and minerals to help sustain energy needs during training.

Protein

Protein is needed to help keep you injury free during training. Protein also helps muscles recovery after a long training run. Marathoners need about 10 – 15 percent of calories from protein or about 0.5 to 0.75 grams of protein per pound of body weight. Good sources of protein include fish, chicken, turkey, beef, low-fat milk yogurt, cheese, eggs, nuts, tofu and beans.

Fat

Dietary fat is essential for overall good health. Marathoners should aim for 25 percent of calories from fat. Choose heart-healthy fats such as nuts, olive oil, canola oil, and avocados. Spreading peanut butter on a bagel instead of cream cheese, adds protein and healthful fats.

Fluids

Drinking enough fluids before, during and after exercise is important for health and performance. When the body doesn't have enough water you become tired faster and your heart works harder. Water is the best choice for recreational activity. For endurance athletes or for those exercising more than 60 minutes, sport drinks can be beneficial to prevent over hydration. The International Marathon Medical Directors Association recommends marathoners to drink when thirsty, and avoid drinking when not thirsty. The chart below is a guideline to make sure you get the right amount of fluids.

Fluid Requirements For Athletes				
Before Exercise			During Exercise	After Exercise
(Day Before)	(Up to 2 hours)	(10 - 15 minutes)	(every 15 - 20 minutes)	(within one hour)
10 - 12 cups	2 - 3 cups	1 - 2 cups	1/2 – 1 cup	2 - 3 cups

What To Eat: Marathoners

Not sure what to eat before a competition? See the information below to help you EAT TO DO YOUR BEST!

The Pre-Event Meal

The pre-event meal should be high in carbohydrate. For morning events, eat a high-carbohydrate meal the night before with a light breakfast in the morning. Eat a carbohydrate rich meal 3 to 4 hours before an afternoon event. Avoid fatty or protein-rich foods, which take longer to digest than high-carbohydrate foods.

Pre-Event Breakfast Ideas

Cold Cereals
Oatmeal
Pancakes
Bagels with peanut butter
English Muffins
Low-Fat Yogurt with Granola
Fresh Fruit
100% Juice

Pre-Event Lunch Ideas

Sandwiches made with bagels or thick-sliced bread
Hearty broth-based soups (bean, noodle)
Baked potato with chili
Burritos with rice

Pre-Event Dinner Ideas

Pasta and Rice dishes
Dinner rolls and breads
Thick-crust pizza with veggies
Fruit
Vegetables

When to Eat

Use the guide below to help fuel your muscles before your training run or race.

Before Vigorous Exercise			Within One Hour After Exercise
3 hours before	2 - 3 hours before	1 - 2 hours	
<ul style="list-style-type: none"> • Fruit or vegetable juice • Fresh fruit • Breads, bagels • English muffins • Peanut butter • Lean meats • Low-fat cheese • Low-fat yogurt • Baked potato • Cereal with 1% milk • Pasta with tomato sauce 	<ul style="list-style-type: none"> • Fruit or vegetable juice • Fresh fruit • Breads, bagels • English muffins • No margarine or cream cheese 	<ul style="list-style-type: none"> • Fruit or vegetable juice • Fresh fruit (low fiber such as plum, melon, cherries, peaches) 	<ul style="list-style-type: none"> • Sports Drink • Fruit or vegetable Juice • Fresh fruit • Dried fruit • Breads, bagels • Pretzels • Fruited Yogurt • Cold cereal • Chocolate Milk

For More Information

Endurance Sports Nutrition by S. Girard Eberle, MS, RD, SG Eberle, Human Kinetics, 2007.

Nancy Clark's Sports Nutrition Guide by Nancy Clark, MS, RD; Human Kinetics, 2008 and *Nancy Clark's Food Guide for Marathoners: Tips for Everyday Champions*, Mayer & Mayer Verlag, 2011.

Sports Nutrition for Endurance Athletes by Monique Ryan, MS, RD, CSSD, VeloPress, 2007, New ed. March 2012.

