

## Running and Protein: How Much Do We Need?

Every runner knows they need carbohydrate to fuel their body to prevent bonking at the end of a long event. Runners also need protein in their diet to allow their bodies to perform a variety of functions that keep a runner functioning at maximum capacity.

During normal activities the protein you consume is used by the body to build and maintain muscle, transport nutrients, promote blood health, maintain hydration and normal pH, boost immune system function, and help with hormone production. Your body can use protein for energy, but it is programmed to avoid using protein for simple energy and instead use carbohydrate and fat for energy.

While you do need protein each and every day, it's likely you're already taking in enough protein. While protein is critical in building muscle mass and a variety of other functions, more is not necessarily better. When determining protein requirements for runners, it's important to look at your overall diet. Runners who consume a diet adequate in carbohydrate and fat use less protein for energy than those who consume a higher protein diet. Adequate carbohydrate and fat in the diet allow the protein you consume to be used toward building and maintaining lean body mass. Runners need to ensure that they are meeting needs for carbohydrates and fat, not just protein.

While runners' protein needs are greater than those of non-athletes, a runners protein needs are not as high as commonly perceived. The Academy of Nutrition and Dietetics, and the American College of Sports Medicine recommend .54 to .9 grams of protein per pound of body weight per day for athletes, depending on training. Most runners who are well trained would meet their protein needs with .54 grams of protein per pound. A runner who is just getting started and working on building muscle would want to consume .7 to .9 grams per pound. As we become more fit our bodies become more efficient with protein use and we require less protein.

Most runners can get the recommended amount of protein through food. For example a 160 pound individual would need a minimum of 86 grams of protein in one day if you assume .54 grams of protein per pound. A diet consisting of a combination of 6 ounces of meat, or fish, or eggs, or cheese, or peanut butter or chicken; plus 2 cups of milk; plus 7 half cup servings of starch; plus 2 half cup servings of vegetables plus 3 servings of fruit would have 86 grams of protein. If you are someone that doesn't eat a lot of protein rich foods such as eggs, meat, cheese, milk, fish or chicken, you may consider adding a protein supplement to your diet. Protein powders and supplements are great for convenience; however food sources of protein are always best.

Another important thing to keep in mind with protein is spreading it out throughout the day. Even on race day it is a good idea to consume a small amount of protein in a meal about 90 minutes before the race, especially if you will be running for more than 60 minutes. The protein that you consume prior to that long race will diminish the effects of cortisol, a hormone that is produced when running contributing to the soreness in our muscles after a long race. If you will be running for more than 60 minutes, such as when you are running a marathon, it is recommended that you consume some protein every hour throughout the event. This is a time when protein supplements may be convenient.

If you are attempting to lose weight through the use of diet changes and exercise, consuming a diet slightly higher in protein may make your efforts more successful. The extra protein can help to make you feel satisfied longer than eating just carbohydrates and your body will need the extra protein for muscle building.

Both the amount of protein in your diet and the timing of the protein intake are important. Spread those meals throughout the day and include a protein source in all your meals and snacks even on race day.

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