M.P.H., R.D., a spokeswoman for the American Dietetic Association and a nutrition teacher at the University of South Florida. And if you short-change your amino intake, your body takes what it needs by breaking down protein in muscle tissue.

Protein From Plants

You can get your required aminos from plant foods, but it's a little complicated. For example, soy is a "complete" protein, meaning it contains all the essential amino acids. But processed soy products like burgers, tofu, and soymilk vary significantly in how much protein and amino acids they provide. It all depends on the product and the brand, Sass says.

The solution is to combine plant-based foods that together make up a complete protein. That means mixing legumes, which are high in lysine but low in tryptophan and methionine, with grains, which score just the opposite. Think rice and beans and you've got a complete protein. "It's a puzzle you need to fit together," Sass explains. "One food has something the other lacks and vice versa." Other winning combinations include beans and sesame seeds, cereal and legumes, rice and legumes, and wheat and beans.

Whey protein is a dairy product that provides all the essential amino acids.

That doesn't mean eating bean sandwiches on wheat bread or sprinkling peanuts on your bran flakes. You can spread your consumption of amino acids throughout the day, according to research in the *American Journal of Clinical Nutrition*. So, since nuts and beans make a complete protein, you can snack on nuts at midday, then sup on beans in a dinner salad, Sass suggests.

What Do You Need?

Specific protein requirements are influenced by age, weight, and other factors. The average adult requires 0.8 gram of protein per 1 kilogram of weight daily, notes Sass. To use this formula, divide your weight by 2.2, then multiply that number by 0.8. For example, a healthy 150-pound adult weighs 68 kilos and requires about 54 grams of protein. How much is that? Just 3 ounces of chicken and 1 cup of milk provide about one-half your daily quota. So does a combination of 1 cup of brown rice and 1 cup of red beans.

Another factor that influences your protein requirement is how athletic you are. Body builders and endurance athletes need about 50 percent more protein than the average adult to increase energy and repair muscle tissue, says Sass. A 2004 report in *Life Sciences* found that taking creatine, a nonessential amino acid, reduced muscle soreness and inflammation in runners after a 30-kilometer race. In an Australian study, branched-chain amino acids (BCAAs), which include the essentials leucine, isoleucine, and valine, didn't improve exercise performance, but they did benefit endurance athletes at high altitudes and in extreme heat. »»»