Do bodybuilders and other weightlifters need more protein? [1]

Dear Alice,

I'm a college student and also a bodybuilder. I've become aware of very high protein intake amongst bodybuilders at my gym. I'm skeptical as to consuming as much protein (around 225 grams) a day like the bodybuilders at my gym do. Do bodybuilders need more protein? And if so, how much more?

? Leery lifter

Answer

Dear Leery lifter,

Being leery is a great attribute in this case, as protein is not necessarily the most critical food source for muscle building. Actually, when bodybuilding, your primary consideration should be taking in adequate energy, or enough calories. Research has shown that consuming an additional 2,270 to 3,630 calories a week (approximately 500 extra calories a day), along with appropriate weight training, will result in one pound of muscle gain.

Muscles rely on glycogen (the energy they use for fuel) to perform work. When bodybuilders replace carbohydrate with protein in their diet, they have lower muscle stores of glycogen. For that reason, a high protein/low carbohydrate diet cannot provide enough glycogen for our muscles, so they may feel weak, tired, and fatigue quickly.

In addition, the body needs to convert any excess protein we eat in order to burn it as energy or to store it as fat. Protein conversion helps us get rid of the nitrogen contained in amino acids (the building blocks of protein), which is eliminated through urination; however, it can also contribute to dehydration, muscle cramping, and excess stress on the liver and kidneys.

As a result, it's recommended that a bodybuilder take in enough carbohydrates. Carbs are used to fuel the muscles you'll use to help build lean body mass. Lots of extra protein by itself will not add muscular bulk? carbohydrates actually spare protein so that it can be used to repair muscle tissue, which is how muscular strength and size is built.

How much protein do bodybuilders need? First, figure out how many calories are needed. If you're not taking in enough calories, you can't build muscle tissue efficiently. That's because
your body will be burning most of your calories, not using them to repair muscle tissue. For example, take a 180 pound guy? if he's moderately active, he probably needs about 2,700 calories a day (plus or minus a few) to maintain his weight. Besides his moderate daily activity level, he could burn about 500 calories during an hour of heavy weightlifting. If he wants to add one pound of muscle weight per week, he needs approximately 500 extra calories per day plus about 500 more to make up for the energy deficit from intense weightlifting. This makes his grand total to be around 3,700 calories a day.

So how can this number be translated to inform his protein needs? The RDA for protein has been established at 0.8 grams/kilogram of body weight for adults. This is not enough to build muscle mass for intense athletes. Although it's difficult to pinpoint a specific number because you have to take into account many variables, research has determined an acceptable range: even at the very high end, the top protein intake needs to be 1.5 to 2.0 grams /kilogram of body weight. For an 180 pound (lb.) (divided by 2.2 = 82 kg) lifter, this would be 122 to 164 grams of protein per day. Since protein has 4 calories per gram, then this amount of protein would comprise 13 to 18 percent of his daily caloric intake of 3700 calories; the usual recommendation is about 12 to 15 percent. As you can see, a huge excess of protein is not needed. You can check out the chart below for some ideas about where to get your protein.

- 5 oz. steak, cooked: 35 grams
- 5 oz. roasted chicken: 43 grams
- 5 oz. tuna: 43 grams
- 1 egg: 6 grams
- 1 c. milk: 8 grams
- 2 T. peanut butter: 9 grams
- 2 slices of cheese: 14 grams
- 2 slices of whole wheat bread: 5 grams
- 1 c. cooked broccoli: 5 grams
- 1 c. beans (legumes): 15 grams

It's easy to get enough protein from food? and quite easy for many people to overdo it. If too much high-fat protein is taken in, and not used, gains may be seen in fat tissue rather than in muscle tissue. Hopefully you now have a better idea about the healthiest way to build muscle. Good luck with your bodybuilding program!

Alice!
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