

Q-100 Society

Monthly Meeting: Protein

July 29, 2011

The Most Frequently Asked Question to a Plant-based Dieter

- When you tell people you are a plant-based dieter, then comes the “six-million dollars” question
....
- “Where do you get your **PROTEIN?**”

The Basics

- Proteins are composed of 20 amino acids
- Only 8 of them are “essential” – meaning that these have to be obtained from food
- It IS a myth that only animal products provide enough of the essential 8
- Another conventional wisdom (another myth!) is that animal protein is superior to plant protein because it is believed to be the only source for complete proteins containing all 20 amino acids

The Basics

- The fact is plant proteins ARE complete and do provide us with all of our essential amino acids
- Another fact is that as long as you are getting enough calories from nutritious, whole foods, meeting your protein requirement should no longer EVER concern you!
- But .. How much protein do we actually need?

How Much Protein Do We Need

- Since 1974, the World Health Organization has recommended that we get 5% of our calories from protein (6% during pregnancy)
- Human baby perfect food – mother's breast milk is 5% protein and baby doubles in size while only consuming the food
- When was last time we, as adults, needed to double in size? So why we need more than 5%?
- Standard American Diet(SAD) contains 10-35% protein

What Is the Protein Requirement (in grams) for a Male Consuming 2000 Daily Calories

- 1 gram of protein converts to 4 calories
- Remember the daily protein requirement is 5%. So $2000 \text{ calories} \times 0.05 = 100 \text{ calories}$
- Number of grams of protein this male needs daily is $= 100 / 4 = 25 \text{ g}$ (about the weight of 5 nickels)
- If you are a woman burning 1500 calories a day, then you require 18.75 g (about the weight of 4 nickels)

Percent Calories from Protein in Various Plant-Based Foods

- Brown rice is 9% protein, potatoes are 10% protein, wheat flour is 18% protein, oatmeal is 19% protein, black beans are 35% protein, mushrooms are 35% protein, and asparagus is 43% protein
- The broccoli is the plant protein superstar – broccoli (50%) has a higher percentage of protein than pork (45%), salmon (44%), chicken (42%), skim milk (40%), eggs (35%), beef (34%), and cheddar cheese (25%)!

The Trouble with Too Much Protein

- Kidney Disease – high protein animal-based foods take in more nitrogen than we need. This places a strain on the kidneys and eventually their function deteriorates
- Osteoporosis – Proteins are composed of amino ACIDS and are therefore acidic by nature. Acidic state of our bodies causes our bones to release calcium to neutralize the acid, which increases the risk of osteoporosis

The Trouble with Too Much Protein

- Kidney Stones - Increased calcium excretion increases risk of kidney stones
- Cancer – Dr. T. Colin Campbell's research showed 20% casein diet (87% of milk protein is casein) promotes the growth of cancer tumors

What About Muscle-building

- Athletes need only slightly more protein, which is easily obtained in the larger servings athletes require for their higher caloric intake
- Plant-based diet is great for athletes
- To consume a diet that contains enough, but not too much, protein, simply replace animal products with grains, vegetables, legumes (peas, beans, and lentils), and fruits

The Conclusion

- As long as one is eating a variety of plant-based foods in sufficient quantity to maintain one's weight, the body gets plenty of protein