



# Meatless Protein for an Active Lifestyle



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**M**any of us are under the assumption that a vegetarian diet consists of no meat consumption. For the most part this is accurate; however, the term “meat” seems to be a subjective term. Also, we forget that the term vegetarian does not refer to a single diet, but actually has several variations. For instance, are chicken and fish considered meat? Some would say “yes”, others “no.” The truth is, and as carnivorous as it sounds, if you are eating flesh, you are eating meat.

Vegetarian diets come in a wide variety of modifications. On the stricter end, a Vegan diet excludes all animal-derived foods, whereas a less strict variation is the Pesco-Vegetarian diet, which excludes all meat except fish. A major concern with vegetarian diets is that they can have a deficiency in protein. The body has over 600 muscles that are directly involved in an active lifestyle; if these muscles are not getting their needed protein, then they can be subject to breakdown and wasting. This should be a major concern for those who adhere to vegetarian diets and live lifestyles that involve extensive muscle usage. With the proper knowledge and diet plan, vegetarians of all types should not have

to worry about a deficiency in protein. It is entirely possible for non-meat eaters to consume proteins in the proper amounts that do not come from an animal.

## ■ How Much Protein?

The issue for vegetarians is not only about the availability of proteins, but is also about their daily consumption of proteins. A general daily protein consumption range for the public is 10-35% of total caloric intake. Although this range is broad, a more specific example would be 500 calories (20%) of a 2,500 calorie diet coming from protein. This would also breakdown to 125 grams of protein if you were measuring it. Another method of fig-

uring an appropriate daily consumption of protein is to use the recommended dietary allowance (RDA) which for most is 0.8g/bodyweight (kg). This equation will give you a basic guideline for protein consumption, and it should be increased with a more active lifestyle.

As you can tell from these figures, the quantity of protein consumed by the body on a daily basis is very important. Without ingesting the proper amounts, your muscles will refuse to keep up with your active lifestyle. The more active your lifestyle, the more macronutrients (proteins, fats, carbohydrates) your body will need to function at the best of its ability. Even though the quantity of protein con-



sumed is of utmost importance, the role of protein sources also factors in.

### ■ What's The Difference?

Animal proteins are among the highest rated by both the Protein Efficiency Ratio (PER) and the Protein Digestibility Corrected Amino Acid Score (PDCAAS). However, most vegetarians do not have the option of consuming these proteins, so they must resort to alternative plant proteins. The main difference that separates animal protein from plant protein, besides their taste, is their composition. Animal proteins are generally rated the highest because they are complete proteins, which means they have all of the essential amino acids. However, as many vegetarians know, they also feature high amounts of saturated fats and cholesterol. Animal proteins may be complete, but plant proteins can be just as complete and efficiently absorbed by the body.

### ■ Plant Proteins

There are numerous types of plant proteins, the most well-known and widely consumed being soy protein. It comes from the soybean, which is considered a legume. Soy protein is a complete protein, one that should be attractive to vegetarians, considering that they don't have many complete proteins to choose from. Soy protein can be found in soy milk and soy beans, but it is also developed into textured soy protein (TSP), which is used in a lot of meat-substitute products. While, the PDCAAS of soy varies based upon its form, it is primarily scored around 1, which is also the exact same score that beef and whey proteins get. Soy products can be a vegetarian's best friend as they offer low or fat free meat alternatives that can be enhanced with flavor to taste similar to meat. The one downside to soy is that some may be highly allergic, since it is the second most allergenic food after peanuts.

Another plant protein that should be appealing to vegetarians is hemp seed. Hemp seed protein is another complete plant protein similar to soy. It has all seven essential amino acids along with other nutritional benefits. Hemp protein is an excellent source of essential fatty acids (EFAs) and contains no gluten for those that are sensitive to it. The primary con-

sumption of hemp in food is either by using the seeds in dishes or by drinking hemp milk. Another option that most hemp enthusiasts resort to is taking a hemp protein supplement. This is done by adding a scoop or two of hemp protein powder to a smoothie or other meal replacement.

If you find that hemp or soy proteins are not for you, another option is pea protein, which can be consumed by adding yellow peas to a meal or taken through pea protein powder. While, pea protein has a slightly lower rating (PER, PDCAAS) compared to animal and soy protein, it is still efficient at 90% digestibility. In a study from Canada done at the University of Manitoba, they found that pea protein can help hypertension and improve kidney function. Another benefit of pea protein, like hemp, is that it is also hypoallergenic.

There are lots of other plant protein options; however the further you skew away from these three, the more creative you must become with your meals. One exception is Quinoa, which is a grain-like food that was favored by the Aztec Indians and like the three proteins mentioned above is a complete protein. Most other plant proteins are given an incomplete status because they do not have a full essential amino acid profile. Sources like wheat and legumes are often lacking certain essential amino acids; however, if consumed together, two incomplete proteins can give your body enough essential amino acids to be considered complete. The PDCAAS can be used to complement two incomplete proteins. For example, whole-wheat has a score of 0.42, and chickpeas have a score of 0.78, which sums a score over 1.0, making for a complete protein.

### ■ Conclusion

As you can now see, protein is not just one type, since there are several different varieties. All proteins generally serve the same primary purpose, and yet they each have different characteristics. It is especially important for vegetarians to eliminate which proteins are not allowed by their diet (animal or meat proteins) and pursue the proteins that are allowed by



their diet (plant proteins). Plant proteins can be just as beneficial as those coming from animals. They might lack certain characteristics like taste or a complete amino acid profile, but with some creativity you can correct these flaws. And finally, being a vegetarian while living an active life style requires consuming both the proper amounts, and the choosing of unique types of proteins. If you can accomplish these two tasks on a daily basis, your body will reward you with strength and longevity.

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