

## Vegetarian Diets

The practice of vegetarianism has been around for quite some time now, and they are here to say. The truth is that these diets can be very healthy, and some say even performance-enhancing. Some of our society's greatest athletes have adhered to some sort of plant-based nutrition program at least part of the time, including Carl Lewis, Martina Navratilova, Edwin Moses, and Hank Aaron.

There are negatives, however. These become especially important for the athlete or individual who exercises on a frequent basis, as dietary needs exceed the needs of the average, sedentary individual. These points include obtaining adequate protein intake, ensuring the individual gets good quality protein, that optimal calories are being consumed.

One of the biggest myths about vegetarian diets is that these individuals cannot, or do not consume enough protein. On the surface, a vegetarian diet seems to be somewhat protein deficient, as there is usually little, if any, animal products on the menu. Upon closer observation, one sees that the combinations of various grains, legumes, and dairy products can, in fact, equate to optimal protein intake.

As we now know, protein is made up of building blocks called amino acids. The human body needs 8 amino acids that are considered 'essential', meaning a human cannot survive without them. Although grains and legumes are considered starches, they also have trace amounts of protein with them, and in the right combinations can equate to adequate essential amino acid intake. Some other myths stem from a belief that plant based proteins are of a lesser quality than animal based, and that the combinations of food that can muster all 8 essential amino acids have to be consumed within the same meal.

Both of these are false.

As long as the essential amino acids are consumed within a meal or two, proper protein synthesis can occur, as they remain in the blood for quite some time.

In the vegetarian world, different classifications abound, including semi-vegetarian, lacto-ovo-vegetarian, lacto-vegetarian, and vegan. What do all these mean?

Nothing, to most people. For those who must take into consideration the various protein sources to choose from, they become very important. For instance, semi's and lacto-ovo's include eggs in their diet. Since egg protein is of the highest quality and, more importantly, a complete protein, these individuals do not usually have to worry about getting their essential amino acids.

For vegans, planning for optimal protein intake becomes tricky, as sources become scarce with a limited menu. Good protein sources for vegans include soya based products, hemp products (hemp seeds, hemp protein powder), nuts and seeds, nut butters, grains and legumes products. There are drawbacks, though, as some of these products are controversial to say the least, especially relating to soya.

Another concern for vegetarians and vegans is obtaining a caloric intake that is optimal for their needs.

Being that a plant-based diet is not as calorie dense as an animal-based diet, one must watch the total calories being consumed, or not consumed. This concern becomes especially important for athletes and people who adhere to a regular exercise program.

Obtaining adequate protein intake is not enough because; if overall calories are too low for your activity level, your body will assuredly obtain the needed sugar from your lean muscle tissue. Devastating for those who wish to lose fat weight and lean up. On a side note, even if the overall calories are in check, balance may be off as vegetarians/vegans may have a tendency to consume a higher

percentage of starch, providing an energy imbalance which may result in increased fat storage. Avoiding excess carbohydrate consumption is the key for vegetarians if they wish to avoid gaining unwanted fat pounds.

The final issue to discuss is in the realm of whether or not one's body can tolerate a plant-based diet.

For example, everyone knows what effect legumes (beans) have on one's digestive system, and some are affected more than others. Common side effects that arise with consumption of legumes and fermented products can include gas, bloating, and abdominal discomfort. In addition, many of these protein sources tend to be eaten on the spicy side to make up for lack of flavor.

Other problems which can arise in individuals who are naturally thin are osteoarthritis, irregular menstrual periods, and Parkinson's disease. Vegans need to be concerned with one main nutrient in addition to protein, and that is Vitamin B-12, as it is not present in plant foods. These issues require a diet which is higher in fat, protein, and overall calories, and a poorly planned vegetarian diet may not address these nutritional needs. Taking some vitamin and mineral supplements can offset most of the problems.

The human body's digestive system is not really designed for a pure vegetarian diet. Vegetable based protein cannot be taken up without animal based fats present.

The fact is that there are no actual vegetarians. Not the Brahmins or Buddhists. They all consume ghee or curd and other milk based products along with their food; all of which are actually from animal sources.

In conclusion, vegetarian and vegan diets can be healthy for some individuals, provided that the diet is carefully planned out. Other than

that, most athletes can perform well, and even excel in their fields of expertise while adhering to a plant-based regimen. Research, to date, notes that there are no significant differences in lean body mass in individuals who adhere to a plant-based diet as opposed to animal-based.