

# Pros and Cons of the Plant- Based Nutrition on Health: Health Education

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## ARTICLE DETAILS

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## ABSTRACT

This paper evaluates the gains and losses of meat free diet on our health that a successful vegetarian diet means more than saying no to meat. The SRS survey reveals that 71% population in India is non vegetarian while 28.85% is vegetarian. Meat free diet may reduce the risk of cardiovascular disease and various types of cancer, metabolic syndrome, which includes obesity and type 2 diabetes. As soon as that meal had a 13% lower risk of heart disease than meat eaters. But they had a 20% higher rate of stroke than meat eaters. This study shows that eating more healthy plant foods in place of red meat has benefits for heart health.

## 1. Introduction

**Vegetarianism:** is the use of ceasing from the utilization of meat (red meat, poultry, seafood, and the flesh of any other animal), and may also include abstention from by-products of animal slaughter. Vegetarianism may be adopted for various reasons and also practiced about six centuries later in another instance (30 BCE–50 CE) in the northern Thracian region by the Moesia tribe (who inhabited present-day Serbia and Bulgaria), feeding themselves on honey, milk, and cheese. In Indian culture, vegetarianism has been intricately connected with the attitude of nonviolence towards animals (called ahimsa in India) for millennia and was promoted by religious groups and philosophers. Many people object to eating meat out of respect for sentient life. Such ethical motivations have been codified under various religious beliefs, as well as animal rights advocacy. Other motivations for vegetarianism are health-related, political, environmental, cultural, aesthetic, economic, or personal preference.

**Veganism:** is a stricter form of vegetarianism. Vegans avoid consuming or using any animal products or byproducts. The Vegan Society define veganism as “a way of living, which seeks to exclude, as far as is possible and practicable, all forms of exploitation of and cruelty to animals for food, clothing, or any other purpose.”

## 2. Comparison of the Main Vegetarian Diets

|                         | MEAT | EGGS | DAIRY |
|-------------------------|------|------|-------|
| Ovo-lacto vegetarianism | NO   | YES  | YES   |
| Ovo-vegetarianism       | NO   | YES  | NO    |
| Lacto-vegetarianism     | NO   | NO   | YES   |
| Vegan diet              | NO   | NO   | NO    |

There are variations of the diet as well: an **ovo-lacto vegetarian diet** includes both eggs and dairy products, an **ovo-vegetarian diet** includes eggs but not dairy products, and a **lacto-vegetarian diet** includes dairy products but not eggs. A strict vegetarian diet – referred to as **vegan** – exclude. A vegetarian diet excludes or limits animal flesh and products. Becoming a vegetarian is a big choice. For most people, it means changing a lifetime of eating behaviors. Some people care about the ethics of using and harming animals. Other concerns include the effects of the food industry on our environment. Some religious groups ban eating certain food.

**Omega-3 fatty acids:** Two crucial ones -- EPA and DHA - - are primarily found in certain fish. ALA (alpha-linolenic acid), another omega-3 fatty acid, is found in plant sources such as nuts and seeds. Not only does your body need these fatty acids to function, but also, they deliver some big health benefits. Omega-3 fatty acids improve your heart health and brain function. Flaxseed meal and oil are two good sources. You also can look for food products fortified with omega-3 from a plant source. Talk to your doctor about taking an omega-3 supplement. If you are vegan, check the label to make sure it does not come from fish oil.

## 3. Eat Plants for Performance

### A framework for good nutrition and fast recovery

Nutrition is more than meeting recommended daily allowances of nutrients. Nutrition is providing the infinitely complex human body the conditions and building blocks that it needs to function best as a whole system. Much nutritional understanding today, however, is focused on piecing together a proper diet based on single nutrients. Rather than considering the entire nutrient and anti-nutrient content of foods, a food's



merit is often based on a single nutrient. Milk, we have all heard, is a good source of calcium for strong bones. Yet relative to fruits and vegetables, milk contains a paucity of vitamins and minerals and also contains anti-nutritive factors such as the highly allergenic protein casein. Per calorie, dark leafy green vegetables contain nearly the same amount of calcium as milk. Furthermore, vegetable matter requires less digestive energy. A framework for good nutrition should be based on adequate nutrient intake, minimizing digestive energy, and leading a healthful lifestyle.

### How They Help Your Health?

Fish oil supplements can lower elevated triglyceride (blood fat) levels. Having high levels of this blood fat puts you at risk for heart disease and stroke. Fish oil supplements

(EPA+DHA) may curb stiffness and joint pain. Omega-3 supplements also seem to boost the effectiveness of anti-inflammatory drugs. Depression. Some researchers have found that cultures that eat foods with high levels of omega-3s have lower levels of depression. The effects of Fish oil supplements on depression has been mixed. More research is needed to see if it can make a difference. DHA appears to be important for visual and neurological development in infants.

**The Plant Based Meal, Athlete:** eating a vegetarian, vegan, or plant-based diet and being a strong, fit athlete are mutually exclusive. Running icon **Bart Yassis** a vegetarian. **Scott Jurek**, one of the greatest ultramarathoners of all time, is vegan. And so is **Alex Morgan**, co-captain of the US Women's Soccer team.



Scott Jurek



Alex Morgan co-captain of the US Soccer team

The **dynamic list of vegetarians** who do not eat animal products. A few of history's most famous vegetarians. The name of the ancient philosopher **Pythagoras of Samos** (c. 570—c. 500–490 BCE). One notable vegetarian was **St. Anthony of Egypt**, a 3rd–4th-century religious hermit who is usually considered the originator of organized Christian monasticism. The great Indian leader and activist **Mahatma Gandhi** was a vegetarian from childhood, having been raised in a Vaishnava Hindu family that practiced vegetarianism. In his adolescence, though, Gandhi strayed from the traditions of his family, smoking and occasionally eating meat. Gandhi

reaffirmed his commitment to vegetarianism while studying law in England, even though it often meant walking 10 or 12 miles a day to find vegetarian restaurants. **Mary Shelley**, the author usually credited with creating the genre of science fiction with her book *Frankenstein*, ate a meatless diet, and the book itself can be read as a kind of vegetarian manifesto. The medical doctor and health-food evangelist **John Harvey Kellogg** was the foremost proponent of vegetarianism in the United States. Kellogg promoted vegetarianism as part of a philosophy of "biologic living" that also required adherents to avoid alcohol and tobacco and to exercise vigorously.



Virender Sehwag

While this strong Indian Batsman may seem like he gets all that strength from eating meat but factually, Sehwag is a pure vegetarian. His daily diet only includes vegetarian food

items and simply loves eating kheer. Sehwag also owns a few vegetarian restaurants. One of them being Sehwag's favorite in New Delhi.



Amitabh Bachchan

The Shahan shah of Bollywood, is a vegetarian by choice and has not touched meat since several years. The organization, PETA has also rewarded him with the most popular vegetarian celebrity in India award. Big B has also given up smoking, alcohol, coffee and even tea. We have all seen how fit Senior Bachchan is, haven't we?

**The Plant-Based Endurance Athlete Diet:** A vegetarian or vegan diet for endurance athletes is really not all that different from a normal (healthy) diet, with the exception, of course, of the meat and animal products. If you are switching from eating McDonald's every day, then sure, it's going to take some getting used to. But if you eat lots of nutritious, whole foods as it is, there really aren't all that many adjustments you need to make to go vegetarian, and from there, to go plant-based. You can take it as far as you want, and some vegetarian and vegan athletes tend toward raw and gluten-free diets, citing even greater energy gains.

But of course, you don't have to take it that far to see the benefits. There are differing degrees of health in plant-based diets, and mine includes a lot of delicious cooked foods that people following more traditional diets would eat.

#### Where Do You Get Your Protein?

The answer is that protein is in all plant foods, just generally in lower quantities. Still, if you're eating a well-rounded plant-based diet with a healthy mix of beans, nuts, and seeds, you'll generally have no trouble getting more than enough protein from vegan foods. At first, it may take some conscious effort to make sure you get a healthy amount of protein in every meal, but it's not that hard. If you're aggressively trying to build muscle, or if you're just concerned about your protein levels, there's always the option for plant-based protein powders, but most people won't need them. Having heard that many endurance athletes thrive on diets with lower amounts of protein than is traditionally recommended, I took a chance on it, and I've never felt better than I do now. I'll

never go back to those crazy 1-gram-of-protein-per-pound-of-body-weight rules again.

**This list represents some common foods that will help you meet the needs of the vegetarian diet for endurance athletes.**

\*All kinds of vegetables, cooked and raw, Vegetable sprouts. \* All kinds of fruits, usually raw.\* Beans and other legumes: lentils, chickpeas, black beans, pinto beans, adzuki beans.\*Starchy vegetables like potatoes and sweet potatoes, Brown rice, Pasta. Whole-wheat bread, pitas, and bagels. \*Other grains and seeds: bulgur wheat, buckwheat, farro, millet, quinoa, flaxseed, hempseed, chia seeds. \*Nuts, nut milks, nut butters: almonds, cashews, walnuts, almond milk, hazelnut milk, peanut butter, almond butter, sunflower seed butter. \* Agave nectar (as workout fuel, not an all-purpose sweetener), Protein powder. \*Soy products: tofu, tempeh, Tea and coffee (limited)

**Vitamin B12** :Vitamin B12 is naturally found in animal products, including fish, meat, poultry, eggs, milk, and milk products. Vitamin B12 is generally not present in plant foods, but fortified breakfast cereals are a readily available source of vitamin B12 with high bioavailability for vegetarians. Some nutritional yeast products also contain vitamin B12. Fortified foods vary in formulation, so it is important to read the Nutrition Facts labels on food products to determine the types and amounts of added nutrients they contain.

It can also be added to foods or supplements. Vitamin B12 is needed to form red blood cells and DNA. It is also a key player in the function and development of brain and nerve cells.

**Vitamin B12-Containing Plant-Derived Food Sources:** Enriched Beans and Vegetables Produced Using Organic Fertilizers or Hydroponics. vegetables may be particularly beneficial to vegetarians. Only trace amounts of Vitamin B12 were found in broccoli, asparagus, Japanese butterbur, mung bean sprouts, tassa jute, and water shield. Vitamin B12 is found in various types of tea leaves (approximately 0.1–1.2 mg Vitamin B12 per 100 g dry weight).



Dried purple laver is a natural plant product and it is suitable for most people in various vegetarian groups.

### The Best Vitamin B12 Foods for Vegetarians

2µg of Vitamin B12 = 100% of the Daily Value (%DV)

|   |   |
|---|---|
| <p><b>1 Fortified Cereals</b></p>  <p>254% DV (6.1µg) vitamin b12 per 3/4 cup<br/>875% DV (21µg) per 100 grams</p>     | <p><b>2 Fortified Juice</b></p>  <p>250% DV (6µg) vitamin b12 per cup<br/>104% DV (2.5µg) per 100 grams</p>  |
| <p><b>3 Unsweetened Soymilk</b></p>  <p>249% DV (6µg) vitamin b12 per 16oz glass<br/>51% DV (1.2µg) per 100 grams</p> | <p><b>4 Fortified Tofu</b></p>  <p>137% DV (3.3µg) vitamin b12 per cup<br/>60% DV (1.5µg) per 100 grams</p> |
| <p><b>5 Low-Fat Milk</b></p>  <p>108% DV (2.6µg) vitamin b12 per 16oz glass<br/>22% DV (0.5µg) per 100 grams</p>     | <p><b>6 Low-Fat Yogurt</b></p>  <p>62% DV (1.5µg) vitamin b12 per cup<br/>25% DV (0.6µg) per 100 grams</p> |
| <p><b>7 Swiss Cheese</b></p>  <p>36% DV (0.9µg) vitamin b12 per oz<br/>128% DV (3.1µg) per 100 grams</p>             | <p><b>8 Vitamin Water</b></p>  <p>25% DV (0.6µg) vitamin b12 per cup<br/>10% DV (0.3µg) per 100 grams</p>  |
| <p><b>9 Eggs</b></p>  <p>23% DV (0.6µg) vitamin b12 in 1 large egg<br/>46% DV (1.1µg) per 100 grams</p>              | <p><b>10 Whey Powder</b></p>  <p>7% DV (0.2µg) vitamin b12 per tbslp<br/>99% DV (2.4µg) per 100 grams</p>  |

**Benefits Of vegetarians:** It is cruel and unethical to kill animals for food when vegetarian options are available. Human anatomy has evolved to support a primarily vegetarian diet. A

vegetarian diet delivers complete nutrition and can provide health benefits.

The spiritual, physical and psychological benefits of a vegetarian diet



Improved cardiovascular health (decreased blood pressure, lowered heart rate, reduced risk for cardiovascular events)

- Lower total cholesterol and LDL levels.
- Reduced carbon footprint.
- Lower risk of developing diabetes type II.
- Improved glycemic control (reduction of Hemoglobin A1C in people with Diabetes Type II).
- Weight management.
- Protection from certain types of cancer.
- Improved neurocognitive function, prevention and management of dementia and Alzheimer's Disease.

#### 4. Psychological Facts About Vegetarians

Vegetarians are more pro-social than people who eat meat. They support environmental protection and societal equality to a higher degree than people who eat meat. They also show more opposition to hierarchy, capital punishment, and violence in general than people who eat meat (Ruby, 2012).

Women are more likely to be vegetarians than men (Ruby, 2012).

Vegetarians are less likely to be overweight or obese than people who eat meat (Cramer et al., 2017)

Male vegetarians are more empathic to human suffering than men who eat meat – but there is no difference between vegetarian and non-vegetarian females (Prelog&Arikara, 2008).

Vegetarians are more likely to be liberals and vote for the Democratic party (Nezlek&Forestell, 2019b).

Vegetarians have lower self-esteem, lower psychological adjustment, less meaning in life, and more negative moods than people who eat meat (Nezlek et al., 2018).

Vegetarian men have higher depression scores than men who eat meat (Hibbeln et al. 2018).

Vegetarians have a higher chance to suffer from depression, anxiety and somatoform disorders than people who eat meat (Michalak et al., 2012). However, the results of

this study showed that many people started being vegetarian after they got a diagnosis for a mental disorder.

#### 5. Disadvantages of the plant-based meal:

The biggest challenge of following a WFPB diet is making sure you get enough of key nutrients. People on vegetarian diets need to pay extra attention to ensure they get enough protein, calcium, iron, and vitamin B12. The health disadvantages of being a vegetarian can be avoided by carefully planning your food intake around certain nutrients and potentially taking some supplements. Most of these disadvantages are easy to overcome and should not stand in the way of choosing a vegetarian lifestyle.

Difficult to ensure enough protein.

Possible nutrient deficiencies including calcium, iron, and B12.

Meal planning and preparation.

The WFPB diet contains a wide variety of nutritious foods. With proper planning, it is possible to get all the necessary vitamins and nutrients. However, people following a plant-based diet that is not based on whole foods may end up eating unhealthy processed foods, which do not provide proper nutrition.

#### 6. Conclusion

Naturally, what we intake depends on who is eating. The general opinion around plant-based diets is slowly move from the stern ideals of vegan and vegetarian to a flexible way of life that can be adapted to the individual. Plant-based diets are generally considered safe and healthy but do require planning and lifestyle shifts around the foods an individual is choosing to consume. Choosing to eat primarily plant-based may positively impact the environment and improve the health of certain individuals. The plant-based diet shows promise in the protection against chronic disease. A well-planned plant-based diet can be nutritionally adequate and sustainable. Other diets, with a focus on fruits, vegetables, and whole grains, have similarly positive impacts on health as a plant-based diet. Human can survive on both food sources.

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