

# Vegetarian Diets



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# VEGETARIAN DIETS

## *Introduction*

Over the past year, I changed my lifestyle dramatically. I used to eat whatever I wanted and did not consider the health benefits I could obtain from certain foods. I always had a gym membership. However, I did not push myself hard enough to lose the weight that I wanted. Over the course of an intense six months that consisted of exercising regularly, eating healthy with portion controlled meals, I lost about twenty pounds. While my weight was a personal goal, I also felt so much healthier inside by what I was nutritionally consuming. I became very interested in fitness and health in general. I went on the Internet and studied different ways to balance a healthy diet with enough of daily nutrition needed. I considered protein, fiber and calcium.

I chose to research vegetarian diets because I have no prior knowledge on how vegetarians obtain enough daily value of calcium, protein, and fiber from alternative foods rather than meat. I thought this topic would be very interesting to research and learn about because I will discover other foods that I can obtain sources of nutrition that our bodies need.

## *Section 1: Background and Problem Statement*

- **Web site #1: Healthy People 2010 – “19 Nutrition and Overweight”**
- **Web address:**  
[http://www.healthypeople.gov/Document/HTML/Volume2/19Nutrition.htm#\\_Toc490383124](http://www.healthypeople.gov/Document/HTML/Volume2/19Nutrition.htm#_Toc490383124)
- **Background Information:**

While vegetarian diets is not a topic specifically covered by Healthy People 2010, the organization still outlines how important proper nutrition is for growth, development, health, and well-being. Vegetarians, in many ways, have to be more aware if they are obtaining the full nutritional value they need from foods other than meat.

The Food Guide Pyramid, introduced in 1992, is an educational tool that conveys recommendations about the number of servings from different food groups each day and other principles of the “*Dietary Guidelines for Americans*”. The “*Dietary Guidelines for Americans*” also emphasize the need for adequate

consumption of iron-rich and calcium-rich foods. Because important sources of calcium also can include other foods with calcium—occurring naturally or through fortification—as well as dietary supplements, the current emphasis is on tracking total calcium intake from all sources, as demonstrated by an objective in this focus area. In addition, in recent years there has been a concerted effort to increase the folic acid intake of females of childbearing age through fortification and other means to reduce the risk of neural tube defects.

- **Web site #2: U.S. National Library of Medicine**
- **Web address: <http://www.nlm.nih.gov/medlineplus/vegetariandiet.html>**
- **Background Information:**

A vegetarian diet focuses on plants for food. This specifically includes fruits, vegetables, dried beans and peas, grains, seeds and nuts. There is no single type of vegetarian diet. Instead, based on the vegetarian's eating patterns, they usually fall into one of the groups in vegetarian diets as a whole. The first group is the vegan diet, which excludes all meat and animal products. The lacto vegetarian diet, which is the second group, includes plant foods plus dairy products. Finally, the lacto-ovo vegetarian diet includes both dairy products and eggs.

People who follow vegetarian diets can get all the nutrients they need. However, they must be careful to eat a wide range of foods to meet their notional needs. Nutrients that vegetarians need to focus on include protein, iron, calcium, zinc and vitamin B12.

- **Web site #3: American Heart Association**
- **Web address: <http://www.americanheart.org/presenter.jhtml?identifier=4777>**
- **Background Information:**

Most vegetarian diets are low in or devoid of animal products. They're also usually lower than nonvegetarian diets in total fat, saturated fat and cholesterol. Many studies have shown that vegetarians seem to have a lower risk of obesity, coronary heart disease, high blood pressure, diabetes mellitus and some forms of cancer.

While vegetarian diets can be healthful and nutritionally sound if they're carefully planned to include essential nutrients, there are a lot of vegetarian diets

that can be unhealthy if they contain too many calories and/or saturated fat and do not have enough important nutrients.

## *Section 2: Research*

- **Web site #1: American Heart Association (Reference 2)**
- **Web address:**  
<http://www.americanheart.org/presenter.jhtml?identifier=4777>
- **Summary of the research:**

Besides effectively defining what a vegetarian diet consists of and outlining health side effects both negatively and positively, the American Heart Association also goes into detail on their web site the specific nutrients to consider in a vegetarian diet. Protein is probably the largest question I had thought of when thinking about how vegetarians stay healthy. The American Heart Association says that while vegetarians do not need to eat foods from animals to have enough **protein** in your diet, plant proteins alone can provide enough of the essential and non-essential amino acids, as long as sources of dietary protein are varied and caloric intake is high enough to meet the body's energy needs. **Soy protein** has been shown as equal to proteins of animal origin. It can be a vegetarian's sole protein source if they choose.

Whole grains, legumes, vegetables, seeds and nuts all contain both **essential and non-essential amino acids**. You don't need to consciously combine these foods within a given vegetarian meal.

Vegetarians may have a greater risk of **iron** deficiency than nonvegetarians. The richest sources of iron are in fact in red meat, liver and egg yolk (all high in cholesterol.) However, dried beans, spinach, enriched products, brewer's yeast and dried fruits are all good plant sources of iron.

Vitamins such as **Vitamin B-12** only come naturally from animal sources so vegetarians need to use reliable sources of B-12 to obtain correct nutrition. Some fortified (not enriched) breakfast cereals, fortified soy beverages, some brands of nutritional (brewer's) yeast and vitamin supplements can all be a source of B-12. **Vitamin D** is an essential for vegans specifically. Vegans who do not get much sunlight may need a supplement.

The American Heart Association goes on to say that according to some studies, vegetarians absorb and retain more **calcium** from foods than nonvegetarians do. Vegetable greens such as spinach, kale and broccoli, and some legumes and soybean products, are good sources of calcium from plants.

Zinc is a nutrient that is important for growth and development. Good plants sources include grains, nuts and legumes. Shellfish are an excellent source of zinc. (*Important Fact:* AHA recommends taking care to select supplements containing no more than 15-18 mg zinc. Supplements containing 50 mg or more may lower HDL (“good”) cholesterol in some people.)

- **Web site #2: Extension Info Net**
- **Web address:** <http://extension.missouri.edu/extensioninfonet/article.asp?id=3650>
- **Summary of the research:**

The University of Missouri’s “Extension Info Net” page discussed many different issues about vegetarian diets. According to their summary, some reasons why people become vegetarians are feelings for animals, concern for world hunger, and health or religious beliefs. EIN recommends that to meet the nutritious needs of a vegetarian diet, a person must eat a least 4 servings of calcium rich food every day. A vegetarian must also get at least 20-30 minutes of direct sunlight 2-3 times each week for their required source of vitamin D. Eating a food item that is fortified with vitamin B-12 and iron every day is essential because this means that a vitamin or mineral has been added to a food item. Vegetarians must also eat a variety of whole-grain products everyday and enjoy a vitamin C fruit or juice with meals to help the body absorb iron.

(*Important Fact* – Vegetarian diets are not recommended for pregnant women, young children, or teenagers unless the diet is carefully planned with a health care provider)

- **Web site #3: Healthy Vegetarian Diet**
- **Web address:** <http://www.healthyvegetariandiet.org/articles/common-vegetarian-mistakes-how-to-combat-them.html>
- **Summary of the research:**

Replacing meat with a vegetarian's favorite protein shake, bar, or powder to a good substitution and can be easy to add to some one's diet that is newly vegetarian. However, for a vegetarian to supplement the fake meat in their diet, they will need to diversify. While unfortunately most Americans skip breakfast, a quick protein drink or bar to consume for breakfast is an easy way for a vegetarian to get their morning boost and protein source.

(\**Important Fact* – According to the Institute of Medicine, the recommended grams of protein per day for women and men both is 0.8 gram per day per kg of the body mass. To take an example, if the weight of a person is 60 kg, then his/her recommended protein intake per day would be 60 kg \* 0.8 grams, which comes to 48 grams of protein per day. The protein requirement is calculated on the basis of the kind of lifestyle a person is leading.)

### ***Section 3: Statistics***

- **Web site #1: The Vegetarian Resource Group**
- **Web address: <http://www.vrg.org/press/2009poll.htm>**
  
- **Summary of the statistics:**

In the 2009 survey, 3% of U.S. adults indicated they never eat meat, poultry, and fish/seafood. These people were classified as vegetarian. According to VRG's date, about 1/3 to 1/4 of the vegetarians (1% of U.S. adult population) also never eat dairy, eggs, and honey and were classified as vegan. With 5% of females 18-34 years old being vegetarian, and 12% of females ages 18-34 not eating meat, this makes a strong statement for companies and restaurants to develop more meatless products and dishes for these consumers. While 3% of the U.S. adult population is vegetarian, it is therefore estimated that there are approximately 6-8 million adults in the United States who are vegetarian.

(\**Important Fact* – When marketing vegetarian and vegan foods, the focus must also be on a much larger number of people interested in these items, as well as those actually vegetarian.)

- **Web site #2: Agriculture and Rural Development – Government of Alberta**
- **Web address: [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/sis8739](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/sis8739)**

- **Summary of the statistics:**

According to a report by the American Dietetic Association and Dieticians of Canada in 2007, approximately 2.5 percent of adults in the United States and 4 percent of adults in Canada follow a vegetarian diet. Even people who are not 100 percent vegetarian reported eating vegetarian meals. The study also shows that 20-25% of adults in the United States report that they eat four or more meatless meals weekly.

- **Web site #3: Vegetarian Society**
- **Web address:** <http://www.vegsoc.org/info/statveg-youth.html>

- **Summary of the statistics:**

The Vegetarian Society has created a fact sheet regarding vegetarianism statistics in children and young people. The most recent 21<sup>st</sup> century “Toddler Survey 2003” polled 2000 parents. The results concluded that 6% of children ages 3 and under reported to be vegetarian.

Another survey, “Food Standards Agency National Diet and Nutrition Survey: Young people 4-18 years, Preliminary Results, June 2000” concluded that 10% of 15 to 18 year old girls claimed to be vegetarian or vegan. 1% of 15 to 18 year old boys claimed to be vegetarian or vegan.

#### ***Section 4: Consumer Information***

- **Web site #1: The Vegetarian Resource Group (Reference 2)**
- **Web address:** <http://www.vrg.org/nutshell/poll.htm>
- **Summary of the information:**

After studying the research and statistics on vegetarian diets, I have come to learn how the attitude toward vegetarianism has changed within the last 30 years. The proof that this trend toward vegetarianism is now a lot more present can be found in the grocery store. Heinz used to be the only vegetarian baked beans available, but now there are several varieties on the shelf, from Campbell’s to store brands. According to VRG, Archer Daniels Midland and Green Giant (Pillsbury) introduced the vegetarian (vegan) Harvest burger in about half the supermarkets across the country in 1994. Also, almost all supermarkets have choices for Mexican food, cakes, and breads without lards, which are all animal-free. VRG

considers the magnitude of this change. Tofu is now also sold in the majority of stores, and some supermarkets have their own brand of dairy-free ice cream.

- **Web site #2: Agriculture and Rural Development – Government of Alberta (Reference 2)**
- **Web address:**  
[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/sis8739](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/sis8739)
- **Summary of the information:**

The U.S. population over the age of twenty was almost 202 million in the year 2000. If 2.5 percent of this population is vegetarian then there should be a consumer population of over 5 million. The study also shows that about 2 percent of six to seventeen year old children and adolescents in the United State are vegetarians. This would amount to a market of a further possible 1 million people. In the study, director of marketing for Yves Veggie Cuisine, Roy Kingsmith, says “When this company started, probably 90 percent of our customers were true vegetarians. Now, it’s only 10 perfect vegetarians and 90 percent consumers who are simply looking for an occasional ‘healthier’ meal.”

- **Web site #3: All Creatures**
- **Web address:** <http://www.all-creatures.org/articles/tomeat.html>
- **Summary of the information:**

The All Creatures Web site has a specific page titled “To Meat or Not to Meat” which addresses major issues and information on animal farms, corporate consumption, and mass produced animals for consumers in the U.S. There is growing health awareness in the U.S. that a vegetarian lifestyle is a healthy and moral choice. According to a Forbes.com article, vegetarian good sales doubled since 1998, hitting \$1.6 billion in 2003. The market is forecast to grow another 61 percent by 2008. This has room for realization of vegetarian good sales currently in 2010.

One of the largest stumbling blocks for many is the stigma of being “different” and for males the association people hold of a vegetarian person as feminine and thus not macho or masculine. As attitudes slowly change though, social acceptance will allow more to feel comfortable about a strictly vegetarian diet.

### ***Section 5: Solutions to the Problem (or Issue)***

- **Web site #1: The American Journal of Clinical Nutrition**
- **Web address:** <http://www.ajcn.org/cgi/content/full/89/5/1549S>
- **Summary of the information:**

The American Journal of Clinical Nutrition judged and concluded from an expert panel the food, plant food, and vegetarian diets in the US dietary guidelines. The AJCN's argues that the strategy of plant-based and vegetarian eating patterns must be featured more prominently in the dietary guidelines for the future. AJCN says that plant-based diets are nutrient dense and calorically dilute. There is a widespread consensus that current rising trends in overweight and obesity will be responsible for substantial increases in morbidity and early mortality in the population. On a positive note, in large and diverse prospective studies, plant-based and vegetarian diets are associated with longevity and a lower chronic disease burden, especially diabetes, heart disease and some cancers. The economic burden of animal food consumption is high because grain is grown to feed animals to be eaten.

- **Web site #2: Vegan Action (VEGAN)**
- **Web address:** [http://www.vegan.org/about\\_veganism/index.html](http://www.vegan.org/about_veganism/index.html)
- **Summary of the information:**

Vegan Action is a non-profit organization dedicated to helping animals, the environment, and human health by educating the public about the benefits of a vegan lifestyle and encouraging the spread of vegan food options through its public outreach campaigns.

Vegan Action's Web site states that despite the common belief that drinking milk or eating eggs do not kill animals, commercially-raised dairy cows and egg-laying chickens, whether factory-farmed or 'free range' are slaughtered when their production rates decline.

The Web site goes on to say that animal agriculture takes a toll on the earth. It is an inefficient way of producing food, since feed for farm animals requires land, water, fertilizer and other resources that could otherwise have been used directly for producing human food.

Vegan Action's last argument is that the consumption of animal fats and proteins has been linked to heart disease, colon and lung cancer, osteoporosis, diabetes, kidney disease, hypertension, obesity, and a number of other debilitating

conditions. Cow's milk contains ideal amounts of fat and protein for young calves, but far too much for humans.

- **Web site #3: Explore Veg – Compassionate Action for Animals (VEGAN)**
- **Web address: <http://www.exploreveg.org/issues>**
- **Summary of the information:**

The Compassionate Action for Animals is a non-profit committee in the twin cities (Minneapolis and St. Paul) community and Midwest region since 1998. In 2003, CAA opened a chapter at the University of Minnesota—one of the five largest colleges in the U.S.

The nonprofit organization argues that “Every time we sit down to eat; we are faced with a powerful choice that carries important consequences. A tremendous amount of animal abuse comes from our consumption of meat, dairy and eggs. Removing them from our diets can help spare countless animals from suffering. With all the great vegetarian options and resources available, reducing our consumption of animal products has never been easier and sends a strong message of compassion.”

### ***Conclusions***

After studying vegetarian diets, I now have a well-rounded understanding for people who choose to be vegan, lacto vegetarian, or lacto-ovo vegetarian. Before studying this topic, I had no idea that there were different types of vegetarianism. I also had a preconceived notion that there were vegetarians and there were vegans. That was it. I feel a lot more educated on the topic. I am confident to now speak with vegetarians in a better communicational way.

Prior to my research, I knew there were mass amounts of non-profit organizations that advocated against animal cruelty. Until now, I was unaware how many more Web sites there are that outline important health benefits and risks to maintaining a vegetarian diet. There are plenty of educational and resourceful Web sites that provide information about all the different types of vegetarian diets—not just vegan diets.

One thing that shocked me, in particular, was the study from the Vegetarian Society's Web site. They presented a “Toddler Survey 2003” survey that polled 2000 parents. The results were that 6% of U.S. children ages 3 and under reported to be vegetarian. I thought this was an interesting statistic that could possibly be

another research topic all together—Young people/children who are vegetarian.  
How is that a choice?

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*Five-minute Twitter Brief*

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**The "Toddler Survey 2003" polled parents. Results were that 6% of U.S. children ages 3 and under reported to be vegetarian. Emilia Murdoch**

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