

For over 150 years Adventists have advocated a vegetarian diet for good health. The original diet given to us by the Creator was a vegetarian diet consisting of various plant foods. Scientific evidence accumulated over the past half century has shown conclusively that a well-balanced vegetarian diet is not only nutritionally adequate but also conveys health benefits. Many chronic diseases (such as heart disease, stroke, cancer, type 2 diabetes, and obesity) can be either prevented or managed by following a vegetarian diet. Well-planned vegetarian diets have been shown to be appropriate for individuals during all stages of the life cycle, including pregnancy, lactation, infancy, childhood, and adolescence, as well as supporting top athletic performance (1).

Vegetarian diets come in many forms. They are usually defined according to which animal products are allowed or eliminated. The common groups include:

- Total vegetarians or vegans. They exclude all animal foods, including meat, poultry, fish, eggs, and dairy products. Some may even exclude honey.
- Lacto-ovo-vegetarians. They refrain from meat, poultry, and fish, but eat eggs and dairy products (including milk, yogurt, cheese).
- Lacto-vegetarians. They refrain from meat, poultry, fish, and eggs, but consume dairy products.
- Ovo-vegetarians. They refrain from meat, poultry, fish, and all dairy products, but consume eggs. This will be more common among populations that have a milk or lactose intolerance.

Some people are semi-vegetarians. They may use limited amounts of meat infrequently. People who are mostly vegetarian but who eat fish, are called pescovegetarians.

Common reasons for choosing a vegetarian diet include personal health concerns, religious beliefs, ethical issues as they relate to the welfare of animals, environmental concerns, economical reasons, and philosophical reasons. While more than 3% of North Americans are vegetarian (2), the numbers vary throughout the world. Many in the developing world are near vegetarian mostly due to the high cost of animal products. Generally, vegetarians and total vegetarians have increased in numbers in the Western world in the past 25 years. In North America, vegetarians comprise about 20-25% of the SDA membership with higher percentages being found in the older age groups. The elderly are more likely to be vegetarian for health reasons while the college-age persons are influenced more by environmental concerns.

Vegetarian diets generally have a lower level of unhealthy saturated fat, cholesterol, and animal protein, and a higher level of complex carbohydrates, fiber, magnesium, potassium, folic acid, antioxidant vitamins (A, C, and E) and a much higher level of bioactive phytochemicals. A vegetarian diet must be appropriately planned to ensure nutritional adequacy (1). Any diet that is not well-planned, whether vegetarian or omnivore, can be inadequate and may be associated with nutritional deficiencies. The total vegetarian diet is the most likely one to put a person at nutritional risk. A total vegetarian needs to take special care to have B12-fortified and calcium-fortified foods every day or else take a regular B12 supplement of 500 mcg 2 to 3 times a week and a 200-500 mg calcium supplement daily. An excellent source of calcium and B12 is a fortified non-dairy beverage, such as a soy, rice or almond beverage. Some health organizations recommend that all persons aged 50 years and older should take a regular B12 supplement.

Vegetarian diets are more environmentally sustainable than diets rich in animal products because they use fewer natural resources, their production generates fewer greenhouse gas emissions, and they are less damaging to the environment. Compared with omnivorous diets, vegetarian diets utilize less water and fossil fuel resources and use lower amounts of pesticides and fertilizers (3). A substantial reduction in the consumption of livestock products is needed to assist in ameliorating climate change. In short, the current worldwide consumption of diets high in meat and dairy products is unsustainable.

Data from the Adventist Health Study-2 and other research studies reveals that those following a total vegetarian diet have a lower body weight, lower blood lipids and blood pressure, lower risk of diabetes, stroke and heart disease, and lower mortality rates than those following a lacto-ovo-vegetarian diet (4-9). However, total vegetarians are more likely to be at risk of nutritional deficiencies (for example, calcium, vitamin B12 deficiencies), and there are more likely to be issues of childhood growth on a total vegetarian dietary regime (10). Less than 10% of SDA members are total vegetarian and it continues to be a matter of discussion as to which is the best and safest vegetarian diet for the 21<sup>st</sup> century. The discussion is often shaped by what part of the world we are talking about. Where fortified foods are freely available, a total vegetarian diet can be safe and adequate. Where they are not available and supplements are not widely available, a total vegetarian diet takes on a heightened level of risk. Ellen White's counsel regarding milk and eggs was usually given in the context of disease in animals rather than in the context of nutritional adequacy. She encouraged a diet rich in plant foods *"prepared in as simple and natural a manner as possible"* as the most healthful and nourishing. Such a diet would *"impart a strength, a power of endurance, and a vigor of intellect, that are not afforded by a more complex and stimulating diet."* (11).

Recommendations for a healthy vegetarian diet include the following:

- Eat at least 9 servings a day chosen from a variety of colored fruits and vegetables. Yellow, orange, and red produce as well as dark, green leafy vegetables should be emphasized. Red, blue and purple berries, plums and cherries are rich in powerful health-promoting antioxidants. While fresh foods are the best, frozen, dried or canned fruits and vegetables are also healthy choices.
- Whole grains are healthier and tastier than refined grains and cereals. Wherever possible, unrefined and minimally processed grain products should be used.
- A half-cup serving of cooked legumes or soy foods should be consumed at least 5 times a week
- A handful of nuts should be eaten at least 5 times a week Where available vitamin D-fortified and vitamin B12-fortified foods should be used. This will provide important nutrients and lower the risk of deficiencies.
- Special attention should be made to getting a good source of omega-3 every day. Best sources include flaxseed (linseed), chia seeds, walnuts, and soy as well as their oils.
- For those persons using dairy products, low-fat products should be used. This will greatly reduce the intake of undesirable saturated fat and cholesterol.
- Milk and meat alternatives, commonly used as food choices, should be properly fortified to be considered appropriate nutritional substitutes

The GCNC recommends a diet rich in whole grains and cereals, legumes, fruit and vegetables, nuts and seeds. For those following a lacto-ovo-vegetarian diet, low-fat dairy products and eggs are included. The relative amounts of each of the food groups are outlined in the recommendations of the ["My Vegetarian Plate"](#) graphic.. Eating a wide variety of colorful plant foods, simply prepared, can provide adequate nutrition for all stages of the life cycle.

References:

- 1 Melina V, Craig W, Levin S. Position of the Academy of Nutrition and Dietetics: Vegetarian Diets. *Acad Nutr Diet* 2016;116:1970-1980
- 2 Stahler C. How often do Americans eat vegetarian meals? And how many adults in the US are vegetarian? The Vegetarian Resource Group website. [http://www.vrg.org/nutshell/Polls/2016\\_adults\\_veg.htm](http://www.vrg.org/nutshell/Polls/2016_adults_veg.htm).
- 3 Marlow HJ, Harwatt H, Soret S, Sabaté J. Comparing the water, energy, pesticide and fertilizer usage for the production of foods consumed by different dietary types in California. *Public Health Nutr* 2015;18(13):2425-2432.
- 4 Orlich MJ, Singh PN, Sabate J, et al. Vegetarian dietary patterns and mortality in Adventist Health Study-2. *JAMA Intern Med* 2013;173(13):1230-38.
- 5 Crowe FL, Appleby PN, Travis RC, Key TJ. Risk of hospitalization or death from ischemic heart disease among British vegetarians and nonvegetarians: Results from the EPIC-Oxford cohort study. *Am J Clin Nutr* 2013;97(3):597-603.
- 6 Huang T, Yang B, Zheng J, Li G, Wahlqvist ML, Li D. Cardiovascular disease mortality and cancer incidence in vegetarians: A meta-analysis and systematic review. *Ann Nutr Metab* 2012;60(4):233-240.
- 7 Tonstad S, Butler T, Yan R, Fraser GE. Type of vegetarian diet, body weight and prevalence of type 2 diabetes. *Diabetes Care* 2009;32(5):791-6.
- 8 Tonstad S, Stewart K, Oda K, Batech M, Herring RP, Fraser GE. Vegetarian diets and incidence of diabetes in the Adventist Health Study-2. *Nutr Metab Cardiovasc Dis* 2013;23(4):292-9.
- 9 Yokoyama Y, Nishimura K, Barnard ND, Takegami M, Watanabe M, Sekikawa A, Okamura T, Miyamoto Y. Vegetarian diets and blood pressure. A meta-analysis. *JAMA Intern Med* 2014;174(4):577-87.
- 10 Craig W. Nutrition Concerns and health effects of vegetarian diets. *Nutr Clin Prac* 2010;25:613-20
- 11 White EG. Ministry of Healing, p 296.