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Veganism and Vegetarianism

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Abstract

Nowadays we hear many things about our consumption. In newspaper, on TV or especially in social media people emphasize that if we would keep going to consume as reckless, we wouldn't find soon any source for nutrition or energy production. That's why some consumers start to query their life effect to the earth. Before talking about comprehensive environment organization or government's decision, we should change something in our dinner table. According to this approach some people now have different diet. The most popular of them are veganism and vegetarianism. What are these actually? What is difference between veganism and vegetarianism? Why are these diets recent trend? What are the advantages and disadvantages of them? The current review was reported to answer such questions.

In a comprehensive study, a systematic review meta-analysis of observational studies reported taht significant reduced levels of body mass index, total cholesterol, LDL-cholesterol, and glucose levels in vegetarians and vegans versus omnivores. Prospective cohort studies showed a significant reduced risk of incidence and/or mortality from ischemic heart disease (RR 0.75; 95% CI, 0.68 to 0.82) and incidence of total cancer (RR 0.92; 95% CI 0.87 to 0.98). Epidemiological studies have supported the hypothesis that vegetarian diets protect against Type2 Diabetes Mellitus (23) and also the studies showed that vegetarian and vegan diets offer significant benefits for diabetes management.

As a result, recommended herbal diets should be offered more widely to reduce the risk of chronic disease development.

Key words: Veganism, vegetarianism, diet, consumption, nutrition.

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Introduction

Firstly the meaning of vegetarianism and veganism should be defined. Vegetarianism has a recorded history dating back to ancient Greece. Because the ancient philosophers believed that every living being had a soul, they didn't prefer eating meat (1). Most anthropologists agree that early humans would have eaten a predominantly plant-based diet. The meaning of vegetarianism is basically not eating meat, fish and chicken. They take off any meat product from their life. Veganism has more restricted diet list. In addition to not eating meat they avoid completely animal products. Vegan Society has referred the definition of "vegan" in 1979 (2): The veganism is a philosophy and life style which the people refrain to using animals for a production of clothes and food. The vegan people are against to persecution of animal for the human consumption hungry. Furthermore , meat industry get crueler toward animals. In order to react to abuse of nature more people prefer being Vegan. Because they want to minimize this consumer market logic (3).

In some culture the meat is prosperity sign that's why living as a vegetarian is so difficult for the people, for instance non-Western culture. Nevertheless day by day especially food industry interested in vegetarian diet routine and diet products. So the vegan and vegetarian's life are facilitated particularly in Europe and USA.

So What are the Advantages and Disadvantages of Veganism and Vegetarianism? Does It Affect Our Health Whether in a Better Way or Not?

Let's start with a research which has suggested that vegans tend to be at healthier weights, with lower cholesterol and lower blood pressure than meat eaters. Also some studies show that vegan diets may reduce the risk of diabetes and some types of cancer. There is a truth that if someone take care of their lifestyle, a disease can be reversed. For example: Diabetes. Although veganism and vegetarianism have some benefits for health, they also have some bad effects (4).

What About During Pregnancy?

Although a vegan or vegetarian diet may offer many health benefits, one of the challenges of them is pregnancy. Because the fetus is more vulnerable to nutritional deficiencies or excesses. That's why vegans and vegetarians should care much more about the diets during pregnancy. There are some required dietary increases including thiamin, riboflavin, folate, vitamin A, C, and D. It's harder to get them during vegan or vegetarian diets (5,6).

What About the Diets and the Diseases?

Actually the vegan and the vegetarian diets offer many health benefits. For example they include eating less of the harmful stuff. But there are also some problems about protein intake.

Protein is one of the most important constituent of our body. Proteins are made

up of amino acids. There are some amino acids that cannot be produced by the body which is called 'essential amino acids'. Many of the foods that contain protein are animal-based (meats, poultry, milk, eggs, etc.). Although these foods are commonly excluded from the diet of vegetarians and vegans, all plant-based foods contain the full complement of amino acids. As a result, if they do the right plant-based diet their bodies may not be deficient in vital nutrients. Also the amount of protein needed varies by one's body weight, age and activity level (7).

Some of the meatless diets can be healthful. For example: Men with an iron-loading gene are better off without red meat, because it contains heme iron, which is highly absorbable and can increase their risk of heart disease. Because vegetarian diets are likely to contain less saturated fat than non-vegetarian diets. Saturated fat also can cause cholesterol. Vegetables contain phytochemicals that appear protective against colorectal cancer. Homocysteinemia (elevated plasma homocysteine) approximately doubles the risk of coronary artery disease. Several congenital and nutritional disorders (like deficiencies of vitamins B6 and B12 and folic acid) can cause this condition (8).

According to American Heart Association suggest that the fish should be consumed at least 2 times a week. But the vegans and vegetarians cannot provide their Omega-3 needs by natural sources. B12 vitamin is especially accessible from red meat, chicken, fish, milk and milky products. It's deficiency causes anemia, tiredness, loss of appetite, loss of memory even depression. Also there are some studies which show us that the vegetarians have a lower body mass index when we compare them with the non-vegetarians. In despite of vegetarian diets, obesity is common for some vegetarian populations (9).

Nutrition Considerations for Vegetarian and Vegan Diets

It is shown that vegetarian and vegan diets are liable to be low in saturated fat and cholesterol by researchers. In addition, they are disposed to include large amounts of vitamins, minerals, fiber and healthy plant compounds (10). Moreover, these two diets include a large amount of nutrient-dense foods. These might contain fruit, vegetables, whole grains, nuts, seeds and soy products(10). In addition to this, insufficient planned vegetarian and vegan diets could result in low intakes of some nutrients, particularly iron, calcium, zinc and vitamin D(10,11).These two diets open a road to include inadequate amounts of vitamin B12 and long-chain omega-3 fatty acids, besides levels of these nutrients are overall lower in vegans than vegetarians as well (10).

Which is Healthier?

So as to a report from the Academy of Nutrition and Dietetics and a lot of scientific reviews, vegetarian and vegan diets can be taken into a consideration as suitable for all parts of life, as long as the diet is organized professionally (10-13).

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However, both vegetarians and vegans should watch out to nutrition strategies meant to enhance the absorption of nutrients from plant foods (11). Vegetarians and vegans should conceive that examining their daily nutrient intake, getting their blood nutrient levels tested.

Getting the Nutrients You Need for Your Bones without Meat

Calcium

Adults need about 700mg of calcium every day. Supplement may be needed if an individual's calcium intake is on the low side. However calcium is significant, so are other minerals and vitamins and well-equilibrium healthy eating is the important point for ensure you get sufficient of the other vital nutrients that are essential for bone health. Some plant-based foods include phytates and oxalates, which bind to calcium and lower its absorption. Phytates, or phytic acid, are involved in all grains and bran, while foods such as spinach and rhubarb include high amounts of oxalic acid. According to most vegans, as long the diet is balanced with affluently other calcium-rich foods, detailed calcium intake is unlikely to be a affected in a harmful way(14).

Vitamin D

Vitamin D assists your body absorb and use calcium. There are some foods that are naturally high in vitamin D and the best source for vitamin D is the sunlight that provides 80–90 per cent of our vitamin D. Vegans who have limited sunlight exposure will get a small amount of vitamin D in their diet other than from reinforced food or a supplement. The supplement vitamin D2 is created from irradiated fungi and is the only type of vitamin D that is convenient for vegans. However researches have demonstrated that vitamin D2 has a shorter duration of action than vitamin D3, it is still efficient when taken on daily(14).

Vitamin B complex

Vitamins from the "B complex" play a part in bone health and some recent research has linked low B12 levels with an enhanced danger of fracture. This vitamin can only be taken by food from animals and bacteria so vegans need to eat enough amount of fortified foods or to take a supplement(14).

Protein

Extreme amount of protein might decrease the strength of bones and increase the risk of fracture. Protein is constituted by a variety of amino acids, some of which are known as "essential" as the body can't produce them itself. While animal-sourced protein will include the complete mix of amino acids, the eliminating of meat and dairy products in a vegan diet can put at risk essential amino acid intake. Vegans need to take a wide variety of vegetable proteins in order to get all the amino acids which are important for their bodies. Soya products, nuts, grains and dried beans are the best for nutrition(14).

Depletion of vegetarian diets, particularly vegan diets, is related with lower levels of plasma lipids, which could rise individuals and healthcare

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professionals an effective option for decreasing the risk of heart disease or chronic conditions.(15)

Coronary heart disease risk was markedly enhanced for a plant-based diet index that urged on less healthy plant foods(16).

Veganism as a Postmodern Identity

In some approaches, postmodernism isn't a material creation. Actually it isn't a theory neither. This term is used to be ''anti-modenism'' which rejects the ''modernistic dogma''s. Postmodernism is a movement and also a phenomenon which effects on art directly.

In generally, it's allegeted that postmodernism has at least three kinds. Some of them are socia-cultural, artistic and philosophic types. In this context, we can evaluate ''veganism'' as a socia-cultural postmodern identity(17).

Veganism in Social Media

As a term ''social media'' is the collective of online communications channels dedicated to community-based input, interaction, content-sharing and collaboration. Websites and applications dedicated to forums, microblogging, social networking, social bookmarking, social curation, and wikis are among the different types of social media(18).

Today, veganism is been interiorized by thousands of people by way of social media. Many of vegan people shares their daily life and routines actively in order to improve veganism on a global scale. The most famous social media platforms- such as ''Facebook'' and ''Twitter''- have different types of veganism based accounts. Some of them underline that ''green lifestyle''. When we analyzed the vegan accounts in Twitter, we can easily notice that, they indicate that '' veganism is a healthy life style''. And by the other hand, these accounts react to animal exploitation in global postmodern world. This assertion can be apprehensible by looking the symbols of the accounts which is related with veganism (Figure 1.) (19).

Figure 1. The symbols of the accounts which is related with veganism

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A Survey Results About Vegans in Turkey

Today, vegetariansm is a very well-known notion. We can also say that some sensitivies about animals become more remarkable. However, what about the veganism?

To an online survey, which is published in ‘’Gaia Dergi’’ in Turkey:

Average age of being vegan: 26.4

Average age of participants: 29.3

The primary reason of being vegan is ethical factors with %89 (Animals)

With %36, vegans are mostly effected by violence videos against to animals when they decide veganism is the right way of life.

The most influential source for who are vegan for healthreasons is social media groups related to vegan nutrition (20,21).

It is known that vegetarian and vegan diets have positive effects on health outcomes. Dinu et al. (22), have found an important outcomes with the study of "Vegetarian, vegan diets and multiple health outcomes: A systematic review meta-analysis of observational studies. "In the study, vegetarian, vegan diets, risk factors for chronic diseases, all-cause mortality, incidence and cardio-cerebrovascular diseases, total cancer and specific cancer type (colorectal, breast, prostate and lung), eighty-six cross-sectional and 10 cohort prospective studies were included. The overall analysis among cross-sectional studies reported significant reduced levels of body mass index, total cholesterol, LDL-cholesterol, and glucose levels in vegetarians and vegans versus omnivores. With regard to prospective cohort studies, the analysis showed a significant reduced risk of incidence and/or mortality from ischemic heart disease (RR 0.75; 95% CI, 0.68 to 0.82) and incidence of total cancer (RR 0.92; 95% CI 0.87 to 0.98) but not of total cardiovascular and cerebrovascular diseases, all-cause mortality and mortality from cancer.

Epidemiological studies have supported the hypothesis that vegetarian diets protect against Type2 Diabetes Mellitus (23) and also in the study of Neal D Barnard ND et all. (24), reported that vegetarian and vegan diets offer significant benefits for diabetes management. In observational studies, individuals following vegetarian diets are about half as likely to develop diabetes, compared with non-vegetarians. In clinical trials in individuals with type 2 diabetes, low-fat vegan diets improve glycemic control to a greater extentthan conventional diabetes diets. Although this effect is primarily attributable to greater weight loss, evidence also suggests that reduced intake of saturated fats and high-glycemic-index foods, increased intake of dietary fiber and vegetable protein, reduced intramyocellular lipid concentrations, and decreased iron stores mediate the influence of plant-based diets on glycemia. Vegetarian and vegan diets also improve plasma lipid concentrations and have been shown to reverse atherosclerosis progression. In clinical studies, the reported acceptability of

vegetarian and vegan diets is comparable to other therapeutic regimens. The presently available literature indicates that vegetarian and vegan diets present potential advantages for the management of type 2 diabetes.

McMacken M and Shah S (25), reported that The prevalence of type 2 diabetes is rising worldwide, especially in older adults. Diet and lifestyle, particularly plant-based diets, are effective tools for type 2 diabetes prevention and management. Plant-based diets are eating patterns that emphasize legumes, whole grains, vegetables, fruits, nuts, and seeds and discourage most or all animal products. Cohort studies strongly support the role of plant-based diets, and food and nutrient components of plant-based diets, in reducing the risk of type 2 diabetes. Evidence from observational and interventional studies demonstrates the benefits of plant-based diets in treating type 2 diabetes and reducing key diabetes-related macrovascular and microvascular complications. Optimal macronutrient ratios for preventing and treating type 2 diabetes are controversial; the focus should instead be on eating patterns and actual foods. However, the evidence does suggest that the type and source of carbohydrate (unrefined versus refined), fats (monounsaturated and polyunsaturated versus saturated and trans), and protein (plant versus animal) play a major role in the prevention and management of type 2 diabetes. Multiple potential mechanisms underlie the benefits of a plant-based diet in ameliorating insulin resistance, including promotion of a healthy body weight, increases in fiber and phytonutrients, food-microbiome interactions, and decreases in saturated fat, advanced glycation endproducts, nitrosamines, and heme iron.

Conclusion

As a result, recommended herbal diets should be offered more widely to reduce the risk of chronic disease development. There is a general consensus that the elements of a whole-foods plant-based diet—legumes, whole grains, fruits, vegetables, and nuts, with limited or no intake of refined foods and animal products—are highly beneficial for preventing and treating type 2 diabetes and also cardio-vascular diseases. Plant-based diets prevet from the risk such as obesity, hypertension, hyper-lipidemia, and inflammation.

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