

# Benefits of Living a Life on a Vegetarian Diet

# Ashrith Valluri

Research Scholars Program, Harvard Student Agencies, In collaboration with Learn with Leaders

# ABSTRACT

Millions of people around the world get infected and die of diseases such as cancer and diabetes. Many of these tragic losses are caused by severe infection and might have just had a slight chance of survival if earlier steps had been taken. One of these is a change of diet to vegetarianism. A study conducted by associates of the American Heart Association proved that those who slowly convert to vegetarianism have a 61% higher chance of living longer (AHA, 2021). Now, a vegetarian diet is not a medicine and taking it does not guarantee lifetime success but studies have proven its resistance. This paper will go into depth on the aspects of a vegetarian diet and the science behind its prevention of diabetes, obesity, heart disease, and cancer giving key insight on the exciting future of diets.

Keywords: Vegetarianism, diet, cancer, obesity, fat levels.

#### Subject: Anthropology

#### INTRODUCTION

Diabetes, obesity, and chronic diseases including cancer and heart disease are health conditions that most people have heard of and greatly fear due to the negative connections they have had with humans. According to a recent study conducted by the Centers for Disease Control (CDC), heart disease is the leading cause of death in the US, followed closely by cancer, obesity, and later by diabetes, all in the top ten (CDC, 2021). Every year doctors rush from clinic to clinic, prescribing patients with a variety of procedures and medicines to hopefully bring them back to track. All these medicines and methods could be useful in helping a person recover but there is another good way to prevent the situation from already taking place. That path is a vegetarian diet. Intaking a daily vegetarian diet will have positive improvements in the recovery of those who suffer from health conditions such as diabetes, obesity, heart disease, and cancer. It has been proven to make certain nutritional elements available to our body while also halting the intake of many invaluable compounds. A vegetarian diet is one people can consider due to its many bonuses and its acclimating style.

#### **Body Diabetes**

There are numerous positive outcomes to take out of a vegetarian diet in our daily lives. Firstly, a vegetarian diet is fantastic for diminishing blood sugar levels while also promoting a healthy increase in body reaction to insulin levels (Castro, 2022). Insulin is the hormone, created by the pancreas, that is responsible for allowing glucose (digested sugar) to be used by cells for energy. If insulin producing levels are lowered, then glucose remains in the bloodstream, creating an unhealthy blood sugar level, and ultimately leading to diabetes (Kudva, 2022). This alone though is not the soul reason a vegetarian diet provides a lower risk of diabetes. First of all, it is important to note that there are three different types of diabetes: type 1, type 2, and gestational diabetes. Type 1 is considered to be the least known so far to scientists but based on studies, it is known to be created by an autoimmune reaction in which the immune system attacks the body itself. It is also most likely caused by genetic mutations hence the reason it is rare and found in young children (CDC, 2022). Type 2 diabetes is one of the three that a vegetarian diet has been proven to improve. Unlike type 1, insulin production in type 2 is not completely halted but instead is not handled properly. The reason behind this is still debated by several scientists but one logical reason for this misuse is due to cells not responding to the production of insulin, something scientists call insulin resistance. Major scientific theories point towards saturated fat, one of four fats, as being the major culprit for this insulin resistance. Saturated fat builds up in the bloodstream and enters muscle cells, creating toxic particles that can block chemical signals involving insulin, further raising blood sugar levels. Most vegetarian diets do not include a lot of saturated fats halting the production of toxins and controlling the continual



#### International Journal of Enhanced Research in Educational Development (IJERED) ISSN: 2320-8708, Vol. 11 Issue 1, Jan-Feb, 2023, Impact Factor: 7.326

strengthening of type 2 diabetes. The last of the three diabetes, gestational diabetes, is one that occurs during pregnancy usually due to hormone irregularities. This form of diabetes usually leaves after pregnancy without the need of a special diet but also increases the risk of type 2 diabetes. In this scenario, a full vegetarian diet would not be necessary but resorting to a mainly vegetarian diet would control future complications (Davison, 2022).

# **Obesity & Overweight**

In addition to improvements in diabetic conditions, a vegetarian diet also has a significant impact on the health of those who suffer from obesity or are overweight. Obesity, defined as an atypical growth of fat in the body, is continuing to become a growing concern for many countries. It was reported, according to the World Health Organization (WHO), that 39% of human adults worldwide were overweight and 13% were obese. That is the same as saying 1.9 billion adults are overweight and 650 million are obese (WHO, 2021). To lower their weight, most people resort to exercise and while exercise is a healthy way to burn fat, weight loss cannot be single handedly achieved through exercise. A healthy well-balanced diet is also required in order to have continuity. If a person jogs for an hour and then goes to a fast-food chain for a snack followed by a restaurant for dinner, he/she might not see that much of a change in their body mass index (Mayo Clinic Staff, 2021). A vegetarian diet is one diet that can be used along with daily fitness to sustain lower body fat levels. Diets loaded with fruits, vegetables, grains, and nuts include a lower calorie consumption and a higher fiber consumption. Since fiber is mostly indigestible, it creates regularity in bowel movements further allowing consistent secretion of feces through the bowels often resulting in better digestion (Zelaya &Sinibaldi, 2021). In addition, the consumption of meat opens the body up to a lot of fats especially saturated fats that can also increase our weight and put the body into jeopardy (NHS, 2021). In addition to the fact that a healthy diet can decrease the amounts of fats we put into our body, a good variety of leafy greens including spinach and kale can have a significant positive impact on metabolism rates (Ece, 2021). Metabolism is the procedure where the food we intake converts into calories that we can burn through exercise. Hence, having a lower metabolism rate will restrict the conversion of fats into burnable energy and allow those fats to accumulate in the body (Harvard, 2021). As a rule of thumb, more fats equal more weight.

# Chronic disease - Heart Disease& Cancer

Additionally, a vegetarian diet is shown to fight chronic diseases like heart disease and cancer. Coronary Heart Disease is caused by the buildup of cholesterol or other fatty substances (primarily found in meat and oils) in the walls of the blood stream. When these substances accumulate, they can stop blood flow similar to the way a dam restricts water flow. This restriction of blood flow lowers circulating oxygen levels and causes lethal damage to the bloodstream (NHS 2020). A vegetarian diet gives people the opportunity of having a lower cholesterol due to the lack of fat found in vegetables, allowing a lower risk of death due to heart conditions (Davison, 2022). Vegetarian diets also produce improvements in cancer treatments due to obstructions processed meat can create. As found in a recent study, meat consumption can increase the risk of various cancers by 29%. Cancer, unlike most diseases that are associated with intruder pathogens, is a genetic disease. During mitosis (cell duplication) the parent cell replicates into 2 daughter cells, each carrying an identical genetic code (Medlineplus, 2021). The same process occurs in cancer cells, the only problem is that cancer cells have a genetic mutation. As a result, cancer cells start to grow without fully developing and then continuously replicate without dying. They start taking up space in the body, destroying surrounding cells, and preventing it from carrying out its daily functions (NCI, 2022). The reason for the trend between meat and cancer is still debated but it was found that when cooking processed meat, chemical compounds that the reaction releases might actually factor into whether cancer replicates continuously. This compound is found mainly in red or processed meat which, in fact, is the most common meat that is consumed, potentially factoring into the recent trends. Contrary to meat having slight cancer producing compounds, nutrition filled plant-based foods might have cancer preventing compounds. It has been proven that plant-based food contains helpful phytochemicals that have the ability to prevent cells from damage and also are anti-inflammatory. Preventing cells from damage can play a huge role in stopping cancerous cells from invading our body. Plants also contain many fibers. Fiber consumption, although still being looked through, has been shown to reduce the risk of colorectal cancer by 10% and breast cancer by 25% making it another exciting part of an improved vegetarian diet (Mayo Clinic Staff, 2019). Obviously, other factors such as sun exposure or environment do play a big impact on cancer production but our diet is one thing that stands as a big difference through a population between people with and without cancer.

# CONCLUSION

A vegetarian diet has been proved to include many long-run improvements on health. It is important to consider that a vegetarian diet is not a key to life completely without health problems. Eating a few pieces of broccolieveryday day doesn't mean that you have a hundred percent immunity to cancer. Even after taking a vegetarian diet, there are still chances of getting diseases. The diet's main goal is to lower the risk and hopefully put people in a safer position. In the



future, there is hope that this diet can be further studied to see if certain specifications can increase its effectiveness. Scientists have a long way to go but the future's looking bright for health.

#### REFERENCES

- [1]. American Heart Association News. (2021, August 4). *Eating a plant-based diet at any age may lower cardiovascular risk*. American Heart Association. https://www.heart.org/en/news/2021/08/04/eating-a-plant-based-diet-at-any-age-may-lower-cardiovascular-risk
- [2]. Castro, M.D, M. R. (2022, November 4). Vegetarian diet: Can it help me control my diabetes? Mayo Clinic. https://www.mayoclinic.org/diseases-conditions/diabetes/expert-answers/diabetes/faq-20058117#:~:text=Improves%20blood%20sugar%20control%20and,risk%20of%20diabetes%2Drelated%20co mplications
- [3]. CDC. (2022, July 7). *What is Diabetes?* Centers for Disease Control. https://www.cdc.gov/diabetes/basics/diabetes.html
- [4]. CDC. (2022, September 6). *Leading Causes of Death*. Centers for Disease Control. https://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm
- [5]. Davison, C. (2022, October 11). *Diabetes and Diet: Here's What You Need to Know*. Forks Over Knives. https://www.forksoverknives.com/health-topics/vegan-diet-and-diabetes/
- [6]. Ece. (2021, December 10). *Metabolism Booster Foods for Vegetarians*. Hurry the Food up. https://hurrythefoodup.com/vegetarian-metabolism-booster-foods/#:~:text=Spinach%2C%20kale%2C%20and%20other%20leafy,for%20metabolism%20and%20energy%2 Oproduction
- [7]. Harvard Medical School. (2021, October 6). *Does metabolism matter in weight loss?* Harvard Health Publishing. https://www.health.harvard.edu/diet-and-weight-loss/does-metabolism-matter-in-weight-loss#:~:text=If% 20your% 20metabolism% 20is% 20% 22high, than% 20others% 20without% 20gaining% 20weight
- [8]. Kudva, M.B.B.S., Y. (2022, August). *Diabetes*. Mayo Clinic. https://www.mayoclinic.org/diseases-conditions/diabetes/symptoms-causes/syc-20371444
- [9]. Mayo Clinic Staff. (2019, October 30). How plant-based food helps fight cancer. Mayo Clinic. https://www.mayoclinic.org/diseases-conditions/cancer/in-depth/how-plant-based-food-helps-fight-cancer/art-20457590
- [10]. Mayo Clinic Staff. (2021, December 7). Weight loss: 6 strategies for success. Mayo Clinic. https://www.mayoclinic.org/healthy-lifestyle/weight-loss/in-depth/weight-loss/art-20047752
- [11]. MedlinePlus. (2021, March 26). *How do cells divide?* Medline Plus. https://medlineplus.gov/genetics/understanding/howgeneswork/cellsdivide/#:~:text=There%20are%20two%20ty pes%20of,a%20fundamental%20process%20for%20life
- [12]. NHS. (2020, March 10). Causes -Coronary heart disease. National Health Service. https://www.nhs.uk/conditions/coronary-heartdisease/causes/#:~:text=Coronary%20heart%20disease%20(CHD)%20is,This%20process%20is%20called%20at herosclerosis
- [13]. NHS. (2021, July 13). Meat in your diet. National Health Service. https://www.nhs.uk/live-well/eat-well/food-types/meat-nutrition/#:~:text=Some%20meats%20are%20high%20in%20fat%2C%20especially%20saturated%20fat.,to%20

nutrition/#:~:text=Some%20meats%20are%20high%20in%20fat%2C%20especially%20saturated%20fat.,to%20 the%20saturated%20fat%20content

- [14]. NIH. (2022, August 17). The Genetics of Cancer. National Cancer Institute. https://www.cancer.gov/aboutcancer/causes-prevention/genetics
- [15]. WHO. (2021, June 9). *Obesity and overweight*. World Health Organization. https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight
- [16]. Zelaya, A. M., &Sinibaldi, E. M. (2021, March). Is Vegetarianism a Solution for Obesity and NCDs? A Review. Scientific Research. https://www.scirp.org/journal/paperinformation.aspx?paperid=107742#:~:text=In%20contrast%2C%20vegetaria n%20diets%20are,food%20intake%2C%20favoring%20weight%20reduction