

An Analysis Regarding the Benefits of Healthy Diet

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ABSTRACT: *Everyone want to be healthy, happy, successful, and live a long life. Proper nutrition is one of the fundamental requirements that must be fulfilled in order to have these: food that is composed of nutrients and non-nutrients that affect the quality of food. As a result, food must fulfil four criteria in order to be considered healthy. It must be sufficient, balanced in terms of nutritional content, calorie-controlled, and devoid of or at least within the acceptable level of health danger components. However, food does not have a direct impact on one's health; rather, one's diet does, albeit it takes time for a bad habit to lead to illness or vice versa. Because food serves so many purposes in human existence, moderation and diversity are essential components of a balanced diet. If these six principles are followed, then fitness and well-being may be guaranteed up to a point, unless additional risk factors are present. Water is essential for bodily function, and humans cannot live without it in their everyday lives. Even yet, drinking beverages may readily be snuck into the toxic substrate, posing a health risk. Nutrigenomic knowledge should be put to use in order to get a better understanding of how food and nutrition influence health on a personal level.*

KEYWORDS: *Food, Healthy, Minerals, Nutrients, Nutrition.*

1. INTRODUCTION

Long life and happiness are the true underlying needs in life, and staying healthy, particularly in life, is an important component of achieving both. The World Health Organization defines health as a condition of full physical, mental, and social well-being, rather than just the absence of illness and infirmity. Nutrition plays a critical part in achieving this, since it has the ability to put individuals into either a healthy or ill condition. Nutrients are dietary components; foods make up a diet, and diet has an impact on one's health. Food is made up of both nutritional and non-nutrient components. Micronutrients, such as vitamins and minerals, and macronutrients, which include carbohydrate, protein, and fat, are two types of nutrient components. Furthermore, there are additional non-nutrients that may be found in diet[1]. As a result, some foods may be used as medication. When both nutrients in food and non-nutrient content are combined, the nutrition status and health of humans will be influenced.

All nutrients and non-nutrients must be in appropriate proportions in order for meals to be considered healthy. When made a regular habit, it will sufficiently satisfy the human requirement to provide the optimum nutritional condition of the people. Furthermore, it must be safe and devoid of any dangerous components that may damage human health. The daily diet, not a single item, has a direct impact on human health. It takes a long time from the start of malnutrition and/or nutritional deficiency/excess to the manifestation of illness. Before it becomes an illness, it must develop a habit of consuming poor quality and quantity food over a period of time. As a result, because the quality and quantity of the content are the most essential aspects of food, humans should consider what they may get from it anytime they eat

any meal. Having stated that, some factors to consider while consuming and/or giving food are the quantity, frequency, kind, content, and method of cooking and/or processing. Furthermore, each one person's nutrigenomic pattern is sometimes important to themselves specifically since it may affect their particular health issue, but not to others[2].

People place a high value on food and eating. Even when we aren't eating, food thoughts and wants play an important part in our lives, with individuals making over 200 food choices each day and food cravings accounting for about one-third of our daily desires. People have evolved to like eating since it is essential to their existence. Eating is a major social and cultural activity that individuals enjoy for aesthetic or communal reasons in addition to its basic purpose. Food, on the other hand, is no longer just a source of pleasure and satisfaction, but has increasingly become a subject of worry due to its possible health risks. The primary cause of such worry has been the rising obesity pandemic caused by our obesogenic environment, which includes a plethora of low-cost, high-calorie meals accessible at any time and in any location. Overweight affects a large percentage of the global population, including children and adolescents, and has far-reaching implications in terms of increased risk of chronic disease[3].

1.1. Dietary Fat:

Dietary fat is a nutrient that is often misunderstood and unfairly criticized. Fat is bad, according to myths and messages that have lasted since the 1960s. This hazardous oversimplification has aided the creation of hundreds of fat-free yet calorie-dense meals, as well as dozens of mostly useless diets. It has also contributed to the obesity and type 2 diabetes epidemics. Because there are four major kinds of dietary fat, each with drastically different health consequences, the statement "fat is bad" is flawed[4].

Transfats derived from partly hydrogenated oils are unquestionably harmful to the heart and the rest of the body. These mostly man-made lipids raise dangerous low-density lipoprotein (LDL) cholesterol, lower beneficial high-density lipoprotein (HDL) cholesterol, induce inflammation, and a number of other changes that damage arteries and affect cardiovascular health. Trans fat consumption has been linked to an increased risk of cardiovascular disease, type 2 diabetes, gall stones, dementia, and weight gain. Saturated fats found in red meat and dairy products raise LDL levels while simultaneously raising HDL levels. Saturated fat consumption in moderation (less than 8% of daily calories) is consistent with a healthy diet, while higher levels have been linked to cardiovascular disease. Monounsaturated and polyunsaturated fats, particularly polyunsaturated omega-3 fatty acids, found in vegetable oils, seeds, nuts, whole grains, and fish, are key components of a balanced diet and necessary for heart health. Polyunsaturated fats replace saturated and trans fats in the diet, which reduces dangerous LDL, raises beneficial HDL, improves insulin sensitivity, and stabilizes cardiac rhythms[5].

Dietary fat isn't linked to a higher risk of chronic illness. In reality, diets with up to 40% fat calories may be very healthy provided they are low in Trans and saturated fat and high in polyunsaturated and monounsaturated fat. Although conclusive evidence on the optimum dietary fat proportions is lacking, a low trans and saturated fat consumption and a greater unsaturated fat intake decrease the risk of cardiovascular disease and diabetes[6].

1.2.The Glycaemic Index:

The glycaemic response is the quantifiable rise in blood sugar that occurs after eating carbs. The higher the postprandial rise in glucose that a meal causes, the higher its glycaemic index. When compared to less refined whole grains, highly refined grains produce a faster and larger overall rise in blood sugar. Increased plasma insulin levels accompany higher glycaemic reactions, which are believed to be at the core of metabolic syndrome and have also been linked to ovulatory infertility. Diets high in glycaemic index or glycaemic load (the product of dietary glycaemic index and total carbohydrate consumption) seem to increase the risk of type 2 diabetes and coronary artery disease, especially in women with insulin resistance. The milling process causes a significant loss of fiber and micronutrients, which may contribute to the negative consequences of highly processed grains[7].

Whole grains, whole grain meals, fruits, vegetables, and legumes, on the other hand, offer slowly digested carbs that are high in fiber, vitamins, minerals, and phytonutrients. A large amount of data suggests that consuming whole grains or high-fiber cereals instead than highly processed grains lowers the risk of cardiovascular disease and type 2 diabetes. Although it has been difficult to prove that diets high in whole-grain fiber reduce the incidence of colon cancer, such a dietary pattern has been linked to a decrease in constipation and diverticular disease[8].

1.3.Protein:

It makes no difference whether amino acids originate from animal or plant protein to metabolic systems involved in protein synthesis and repair. Protein, on the other hand, is not eaten in isolation. Instead, it comes in a box with a variety of other vitamins and minerals. Long-term health may be influenced by the quality and quantity of lipids, carbs, salt, and other nutrients in the "protein package." The Nurses' Health Study, for example, found that eating more protein from beans, nuts, seeds, and the like while cutting back on easily digested carbohydrates lowers the risk of heart disease. However, eating more animal protein while cutting back on carbohydrates did not lower the risk of heart disease, possibly due to the fats and other nutrients that come along (or don't) with it.

1.4.Vegetables And Fruits:

"Eat more fruits and vegetables" is advice that has stood the test of time and is supported by a vast body of research. Fiber, slowly digested carbs, vitamins and minerals, and many phytonutrients found in vegetables and fruits have been linked to protection against cardiovascular disease, aging-related vision loss owing to cataract and macular degeneration, and bowel function maintenance. The link between fruits and vegetables and cancer is less well understood. Fruits and vegetables, although not having a universal anticancer impact, may help with particular malignancies such as esophageal, stomach, lung, and colorectal cancer. Fruits and vegetables should be eaten in large quantities, with at least five servings each day. Furthermore, more is preferable.

1.5.Vitamins And Minerals:

The vitamins, minerals, and other micronutrients required for optimum health are usually found in an ideal diet. However, many women in the United States, including a significant proportion

of impoverished women, do not eat optimally. As a result, for the majority of women, a daily multivitamin-multi mineral supplement is enough protection against nutritional deficiencies. Extra iron is typically included in these supplements, which is required by the 9 percent to 11 percent of premenopausal women who are iron deficient[9].

The well-documented effect of vitamin supplements is that more folic acid may decrease the incidence of neural tube abnormalities by around 70%. All women of reproductive age should take a daily supplement containing 400 to 800 micrograms (g) of folic acid, or 4 milligrams (mg) for women who have a child with a neural tube defect, according to current recommendations. Calcium is necessary for bone strength to be maintained. The exact amount of calcium required is a contentious issue. The World Health Organization recommends a daily consumption of 400 mg. For women aged 19 and above, 700 mg per day is deemed sufficient in the United Kingdom. Adult women in the United States should consume 1,500 mg of calcium per day, which may be obtained in large part by eating three servings of low-fat or fat-free dairy products each day. Calcium supplements are a low-calorie and fat-free alternative.

Other variables, such as physical exercise and vitamin D, are just as essential as calcium in maintaining bone health. There is growing evidence that current vitamin D guidelines are too low, and that 1,000 IU/day provide greater protection against fractures, heart disease, and certain cancers³⁰. Excess preformed vitamin A (retinol) consumption has been linked to an increased risk of hip fracture, perhaps due to vitamin D competition. However, intakes somewhat greater than the current Dietary Reference Intake of 700 g per day are associated with an increased risk[10].

1.6. Weight Control And Exercise:

The core of a web of health and illness is a spider's web of body weight. Excess weight puts a person at risk of developing a variety of chronic illnesses. The greater the frequency of abnormal blood glucose, lipids, and blood pressure; hypertension and cardiovascular illness; diabetes; numerous malignancies; gallstones; sleep apnea; pregnancy problems; infertility; and early mortality, the higher the BMI > 25 kg/m². According to current national recommendations, a BMI of 18 to 25 kg/m² is considered ideal, and the greatest health is obtained by preventing weight gain throughout maturity.

Calories eaten and spent have a direct role in maintaining a healthy body weight or reducing weight. Weight maintenance necessitates portion management. Low consumption of sugary drinks and Transfats, as well as a greater intake of dietary fiber, seem to be beneficial when it comes to weight management. Regular exercise and avoiding severe idleness, such as excessive television viewing, are also important weight-control measures. It's also essential to have a positive social and physical environment.

1.7. Mediterranean Diet:

Traditional Mediterranean diets have been associated to reduced incidence of heart disease and other chronic diseases in nations around the Mediterranean Sea. Such diets also seem to adapt well to new environments. Those whose diets most closely matched a traditional Mediterranean diet had lower risks of all-cause mortality, cardiovascular mortality, and cancer mortality than those who followed a Western diet, according to the 166,012 women who took part in the

National Institutes of Health AARP Diet and Health Study. For males, there was a similar pattern. The effect was much more pronounced among smokers. Other health advantages of the Mediterranean diet include a lower risk of cancer, Parkinson's disease, and Alzheimer's disease. It has also been linked to asthma management and rheumatoid arthritis improvement.

Although no one diet can be termed "the" Mediterranean diet, those that are worthy of the designation are high in extra virgin olive oil, whole grains and fiber, and fruits, vegetables, legumes, and nuts. Small quantities of cheese and yogurt are consumed on a daily basis; fish is consumed in various proportions; red meat, poultry, eggs, and sweets are consumed in moderation. Moderate quantities of red wine are served with meals, and frequent physical exercise is encouraged.

1.8.Diet And Pregnancy:

Good diet may improve mother health during pregnancy, lower the chance of birth abnormalities, promote optimum fetal growth and development, and protect the growing kid from chronic health issues. Women should usually follow the Dietary Guidelines for Americans before becoming pregnant and throughout pregnancy, according to the American College of Obstetrics and Gynecology and the American Dietetic Association. Other important measures include maintaining a healthy weight, getting enough exercise, taking vitamins (folic acid) and minerals (iron) when required, and avoiding alcohol, cigarettes, and other hazardous drugs.

Recent mercury-in-fish warnings have led some pregnant women to abstain from eating fish. Many kinds of fish, on the other hand, include omega-3 fatty acids, which are beneficial to embryonic growth. It has not been shown that eating moderate quantities of low-mercury seafood during pregnancy causes difficulties. Women who are pregnant or nursing should consume up to 12 ounces (2 typical meals) of mercury-free fish and shellfish each week, according to the Food and Drug Administration and the Environmental Protection Agency. Anchovies, catfish, flounder, mackerel, pollock, salmon, sardines, shrimp, and tilapia are examples of mercury-free seafood.

1.9.Nutritionally Healthy Food Principle:

Food is described as any material that enters the human body, is swallowed and/or eaten, and reacts with the body to supply energy for life and activity, repair and build up tissue, and regulate physiological processes. It may take the shape of a solid or a liquid, as well as a simple or complicated meal. Single refers to a single meal, while complex refers to a meal that contains a variety of foods. To declare that food belongs to healthy food, three key criteria are needed from a nutritional standpoint. First and foremost, it must be sufficient. Adequate here refers to the food's ability to supply the body with the nutrients it requires for the three functions listed above. As a result, the quantity of food consumed and the frequency with which it is consumed must be addressed. Second, the nutritional content must be balanced. Because nutrients are divided into two categories, macro and micro, and each category is further divided into carbohydrate, protein, fat, mineral, vitamin, and water, it is necessary to maintain balance in all of the previously stated nutritional groups. Humans need a certain quantity of nutrients, known as the recommended daily amount or daily intake. Food consumed on a regular basis

must include all required elements; therefore, a well-balanced diet is essential in order to be considered healthy. Third, calorie intake from meals must be kept under control. To sustain their life and activities, humans need certain calorie amounts. In general, calorie intake may be estimated using a formula, and there are many formulae for calculating the amount of calorie required by individuals. A single meal, simple or complicated, has no effect on human health unless it contains a significant level of human health danger, but the diet does. One may consume nutrient-poor food once or twice without harming one's health, but if it becomes a habit, the illness will progress to the clinical stage in a short period of time. Food with a high dosage of health danger material, on the other hand, may be the source of a specific illness. Taking one additional cup of ice cream, for example, will have no effect, but if done on a regular basis for a year, it may result in weight gain or obesity. Similarly, food containing relatively little salmonella toxin will not cause illness, but when the quantity is high enough to induce typhoid fever, it will.

2. DISCUSSION

According to research, eating “healthy” foods like fruits and vegetables has both physical and mental health advantages, and may be a long-term investment in future well-being. This viewpoint contradicts the popular notion that high-calorie meals taste better, make us happier, and help us feel better. We examined in-the-moment eating happiness by evaluating full, real-life dietary behaviour over eight days using smartphone-based ecological momentary assessment to offer a more thorough evaluation of food choice and well-being. There were three major findings: First, out of 14 distinct major food groups, veggies contributed the most to eating pleasure during an eight-day period. Second, sweets produced similar levels of induced eating pleasure as “healthy” foods like fruits and vegetables. Third, supper evoked similar levels of eating pleasure as snacking. These results are addressed in the context of the eating behaviour views of "food as health" and "food as well-being."

3. CONCLUSION

We aimed to provide a current state-of-the-art overview of what is known about healthy diet from a psychological perspective, including: what actually constitutes a healthy diet and how this information is communicated to the public; who is able to eat a healthy diet and adhere to professional recommendations for eating the ‘good’ food; and which behavioural and environmental factors are important for undue weight gain. Answers to these issues are critical in light of the present lack of a nutritious diet in significant segments of the population, which is a major source of worry for international public health organizations, national governments, and health experts. Concern is also justified by the rising number of individuals who are overweight or obese as a direct consequence of an unhealthy diet, either in terms of food quality or, perhaps more importantly, in terms of the amount of kcalories that people eat.

REFERENCES:

- [1] T. N. Trang Tran, M. Atas, A. Felfernig, and M. Stettinger, “An overview of recommender systems in the healthy food domain,” *J. Intell. Inf. Syst.*, 2018.
- [2] O. Martinez, N. Rodriguez, A. Mercurio, M. Bragg, and B. Elbel, “Supermarket retailers’ perspectives on healthy food retail strategies: In-depth interviews,” *BMC Public Health*. 2018.
- [3] E. Mead, J. Gittelsohn, C. Roache, and S. Sharma, “Healthy food intentions and higher socioeconomic status are

- associated with healthier food choices in an Inuit population,” *J. Hum. Nutr. Diet.*, 2010.
- [4] S. M. Lee, N. (Paul) Jin, and H. S. Kim, “The Effect of Healthy Food Knowledge on Perceived Healthy Foods’ Value, Degree of Satisfaction, and Behavioral Intention: The Moderating Effect of Gender,” *J. Qual. Assur. Hosp. Tour.*, 2018.
- [5] E. K. Chan, R. Kwortnik, and B. Wansink, “McHealthy: How Marketing Incentives Influence Healthy Food Choices,” *Cornell Hosp. Q.*, 2017.
- [6] S. Phulkerd, M. Lawrence, S. Vandevijvere, G. Sacks, A. Worsley, and V. Tangcharoensathien, “A review of methods and tools to assess the implementation of government policies to create healthy food environments for preventing obesity and diet-related non-communicable diseases,” *Implement. Sci.*, 2016.
- [7] S. S. Casagrande *et al.*, “Healthy food availability and the association with BMI in Baltimore, Maryland,” *Public Health Nutr.*, 2010.
- [8] S. Williamson, M. McGregor-Shenton, B. Brumble, B. Wright, and C. Pettinger, “Deprivation and healthy food access, cost and availability: a cross-sectional study,” *J. Hum. Nutr. Diet.*, 2017.
- [9] C. R. Singleton, Y. Li, A. C. Duran, S. N. Zenk, A. Odoms-Young, and L. M. Powell, “Food and beverage availability in small food stores located in healthy food financing initiative eligible communities,” *Int. J. Environ. Res. Public Health*, 2017.
- [10] J. Kang, J. Jun, and S. W. Arendt, “Understanding customers’ healthy food choices at casual dining restaurants: Using the Value-Attitude-Behavior model,” *Int. J. Hosp. Manag.*, 2015.