

The Impact of Trendy Diets on Nutritional Imbalance and Health Risks

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Abstract:

In nowadays society people are focusing on their well-being and appearance more than ever. Social media has amplified almost every detail on daily occasions, however, such additional attention may not necessarily be beneficial for everyone. Influencers post pictures of their perfect physique and use them for more attention and followers. Among all the so-called ‘secrets’, people are most curious about what they eat and how they eat to look that stunning. Compared to tiring gym sessions and boring lectures about anatomy and physiology, a brand-new revolutionary recipe is far more appealing. The trendy recipes are beneficial to some people who have special needs such as those who are obese, type-II diabetes patients, people who suffer from cardiovascular diseases, etc. Such recipes greatly altered the proportions of the different essential nutrients to improve some symptoms that are occurring due to an imbalance of nutrition. However, such a diet may be beneficial to the human body in the short run by adjusting the daily calorie intake and controlling the categories of food in each sitting, in the long run, it would lead to another malfunction of the body due to nutrition imbalance.

Keywords: Trendy diets; social media influence; nutritional imbalance; health risks; dietary guidelines.

1. Introduction

In today’s society, body image, and health have become a topic that is bigger than ever. People hope to eat healthier and look better. However, their effort may backfire due to a lack of education on proper dietician and nutrition knowledge [1]. People around the world are following influencers on social media, real-life celebrities, professional athletes, or movie stars’ diets hoping to look like them. However, not all of the recipes are necessarily complete, or what they eat all the time [2]. Most recipes or diet habits are created as what is known as ‘Clickbait’ which means having an appealing topic to attract attention but with false or misleading information [3]. Despite these famous dietary habits being publicly depicted by influencers on social media, they still could be harmful to Individuals’ health. ‘The findings revealed that females and males spent 4.1 ± 3.9 and 2.9 ± 2.8 hours on SNS, respectively, with the majority of time spent lurking (i.e., looking at another users’ profile but not actually communicating with them).

Furthermore, problematic SNS use was found to be related to BI, SE, and ED symptoms/concerns. Moreover, SNS activities, such as lurking and posting comments on others’ profiles, were found to be related to BI, whereas SNS

total time was found to be related to ED symptoms/concerns.’ Take the Copenhagen diet as an example, which has thousands of views on YouTube [4]. These diets that are currently viral on social media that people believe are healthy, beneficial to their health, and weight-controlling diets. People follow such diets because it allows them to lose a dramatic amount of weight within two weeks [5]. The result made people ignore the terrifying side effects of such a diet. The diet lacks multiple-essence nutrition and provides only half of the recommended calorie intake for a normal adult. Meanwhile, the figures on the balance decrease do not mean the participants lost weight. They water within their muscle tissues and leave their Body Mass Index and Body Fat percentage the same. Similar to the Copenhagen diet, trendy diets have been mentioned to either lack a few essential nutrients that the human body needs out of carbohydrates, protein, fats, vitamins, minerals, and water or consume tons of food within one sitting. The US dietary guidelines 2020-2025, recommend people focus on all kinds of food, ‘vegetables of all types, fruits, grains, dairy, protein food, and oil.’ The Mayo Clinic recommended having 5 to 6 sittings in a day with small portions instead of having 3 big meals [2]. Avoiding consuming certain groups of food, famously carbohydrates could lead to eating disorders, low energy, headache, fatigue,

and weakness. On the other hand, consuming too many calories in one sitting could lead to type 2 diabetes (T2D), cardiovascular diseases (CVDs), blood clots, obesity, nausea, and even depression. Overeating or undereating in daily sittings could all lead to body disorders.

However, followers of such recipes were not alerted to the potential consequences, only the upsides of these diets. Therefore, this article will analyze and contrast the negative effects of current trending diets such as Paleo, fasting, keto, carbon cycle diets, and juice diets [4].

2. Effect of Essential Nutrients on the Human Body

The human body relies on multiple essential nutrients to perform daily tasks regardless of voluntary or involuntary activities. The essential nutrients are carbohydrates, protein, minerals, vitamins, fats, and water. Carbohydrates provide most of the energy to our body to sustain daily activities and basic functions of the body. An average adult burns 1600 to 2000 calories to keep the basic activities of the body such as breathing, heart beating, digesting, and brain activities [1]. Protein in the diet is to help the body to grow and repair. Protein is majority applied to the bones and muscles since human activities often lead to damage in such parts. Minerals balance the inner organs' function and health. The body absorbs minerals and distributes them to different organs. Such as iron, magnesium, copper, potassium, and sodium. Calcium builds bones, and teeth, strengthens muscle contraction, and regulates blood pressure.

Iron helps hemoglobin deliver oxygen to the muscles around the body. Copper helps the body generate red blood cells and both sodium and potassium help the muscles to contract and balance body fluid. Water makes up the majority of the body's fluid, stay hydrated keeps the body in a range of normal temperature. Lacking water in the body system makes individuals more prone to heat-stroke since the body can't sweat. Drinking water also protects joints. Water is necessary for the body to produce synovial fluid which lubricates and cushions the joints. Fats, which are unfavored by most people, strengthen the brain and give people good sleep, etc. The human body utilizes all the essential nutrients to keep the body functioning smoothly. Lack of vital nutrients can have a significant, frequently negative impact on one's health and present itself as a range of physical and psychological issues. Vitamins, minerals, proteins, lipids, and carbohydrates are among the essential nutrients that are necessary for supporting general health and body functions. For example, low vitamin D can cause weakening bones and an increased risk of osteoporosis, while insufficient vitamin

C can cause scurvy, which is characterized by gum disease, weariness, and skin problems. Another serious issue is iron deficiency, which can result in anemia and induce symptoms including weariness, lightheadedness, and poor cognitive performance.

Moreover, poor consumption of omega-3 fatty acids can have detrimental effects on cognitive and cardiovascular development. More generally, nutritional deficits can weaken the immune system, increasing the body's vulnerability to infections and diseases. Deficits can impact mental health in addition to physical health. For instance, low B vitamin levels have been connected to mood problems and cognitive loss. The combined impact of these inadequacies frequently lead to a lower quality of life, with people reporting lower levels of vitality overall, decreased energy, and impaired mental clarity. A balanced diet full of a variety of food categories is vital to address nutrient deficiencies, and in certain situations, supplementation can be required to get back to full health. The risk of chronic illnesses and long-term health difficulties rises when nutrient consumption is neglected, highlighting the significance of keeping a well-rounded and nutrient-rich diet to support overall health and prevent potential risk of disorders.

3. Common Factors Found in the Majority of the Trendy Diets

Diets that are vegan, carnivore, or keto have different tenets, yet they all have things in common that make them appealing. The ketogenic (keto) diet, a high-fat, low-carb regimen, is recognized for its concentration on inducing ketosis, a metabolic state where the body burns fat for energy instead of carbs. Claims of quick weight loss and possible advantages for neurological problems caused it to become quite popular [3]. The carnivorous diet, also known as the carnivore diet, adopts a more severe stance by excluding all plant-based foods and concentrating only on animal items such as fish, meat, and eggs. Proponents claim that this diet improves health markers and lowers inflammation; its radical simplicity and anecdotal success stories have drawn attention to it. Conversely, the vegan diet emphasizes plant-based foods and forgoes all animal products. Most of the trendy diets that are currently going viral on the internet are over-advertising their upside and barely mention the downside of the diets. The body needs all the nutrients to function efficiently and gracefully.

However, most of the trendy diets are seeking views by making outrageous changes to normal recipes. Recipes such as keto, carnivorous, and vegan diets all took away an essential part of a traditional diet which created a huge surprise for people and convinced them that such a way of

eating is healthy by emphasizing the difference. Special or trendy diets may serve people with special needs well nutritionally, such as people who have T2D, and cardiovascular disorders, having a vegan diet would allow them to have less fat in their daily diet. However, the shortage of fats in the daily diet might increase the chance of having strokes for a healthy, ordinary adult. Similarly, for the keto diet, the keto diet was initially for those who needed to lose weight in a short amount of time or people who are suffering from diabetes. The KD diet could potentially increase genetic diversity of the microbiome and increase the ratio of Bacteroidetes to Firmicutes. The epigenome might be positively affected by the KD since it creates a signaling molecule known as β -hydroxybutyrate (BHB). KD has helped patients with diabetes reduce their HbA1c and reduce the need for insulin. There is evidence to suggest that a KD can help with weight loss, visceral adiposity, and appetite control. The evidence also suggests that eating a high-fat diet improves lipid profiles by lowering low-density lipoprotein (LDL), increasing high-density lipoprotein (HDL), and lowering triglycerides (TG) [6]. In other words, these meals were created for people who have special needs due to medical conditions. For the majority of the common people having a well-balanced meal with multiple nutrients is much healthier than having a special meal with one or two nutrients missing. A number of factors, including the popularity of social media, celebrity endorsements, and easy access to information, have contributed to the emergence of these diets. High-profile endorsements and success stories disseminated via digital media frequently give rise to the popularity of keto and carnivorous diets, while the increased consciousness of environmental and animal welfare issues helps veganism gain ground. Though both diets are well-liked, they are not without criticism and potential negative effects. Carnivorous and ketogenic diets might cause nutrient imbalances or long-term health issues, while veganism can necessitate careful planning to guarantee sufficient nutrient intake. In the end, the rise in popularity of these diets is indicative of a larger trend of people looking for customized dietary plans that guarantee particular health benefits, frequently propelled by individual success stories and the widespread impact of online communities [7].

4. Potential Risks to the Body of Consuming Trendy Diets in the Long-term

Having a special diet that in the long run might start off feeling refreshed and healthy, by consuming fewer nutrients that were abundant in their body and more that were insufficient. However, consuming an imbalanced meal in the long run could cause physical disorders and men-

tal disorders. Eating a diet with few or no carbohydrates could lead to brain fog, loss of strength, loss of muscle, loss of libido, and weakening individuals since the body is constantly working at a low energy level. In the meantime, eating few or no carbs in the daily diet could lead to eating disorders, body dysmorphia, anger issues, and possibly depression. These concerns are frequently exacerbated by social media and cultural influences, which promote unrealistic body standards and eating fads that worsen people's relationships with food [8]. Stress-related eating habits can become ingrained and typified by a lack of control, which can result in a variety of medical and psychological problems. These habits, which interfere with regular eating patterns and negatively affect one's physical and mental well-being as well as general quality of life, can include obsessive exercise, binge eating, and excessive calorie counting [9].

Insufficient energy within the body is not able to support exercises, work, and daily work. Having not enough energy to support all these tasks could easily ruin one's mood. Insufficient energy and sleep may not hinder an individual's life within the first couple of weeks. Consuming supplements or caffeine could stimulate the brain to feel more energetic, however, consuming caffeine daily develops a reliance on caffeine to get motivated and resistance due to an increase in usage. Consuming an excess amount of caffeine could lead to chest pain, headache, loss of sleep, and anxiety. In addition to the loss of carbohydrates, the lack of vitamins As, Es, B1, B2, B3, B6, and, B9 from grains weakens strength and stamina. Having grains and carbohydrates in a daily diet enables the body to burn many more calories by exercising than by starving it. In the meantime, Eating-related stress can play a major role in the emergence of eating disorders since the psychological pressure associated with food frequently results in unhelpful eating habits. High levels of stress related to nutrition can cause people to get fixated on food selections, weight, and body image, which can result in harmful eating habits. For instance, long-term stress can lead individuals to follow rigid diet plans or severely limit their caloric intake in an effort to manage their weight or health, which can lead to the development of eating disorders such as anorexia nervosa. On the other hand, stress can also cause binge eating, a condition in which people overeat as a reaction to emotional discomfort. This can progress to binge eating disorder. the ongoing concern about eating and the obligation to adhere to dietary norms.

5. Building a Healthy Diet with all Essential Nutrition.

The human body must access to all the nutrition that it

needs to work smoothly and gracefully. Each category of nutrition is responsible for one specific physiology of the human body. Eating a wide variety of food in daily diets enables the body to absorb a wider range of nutrients but also enjoy eating as well. Building a healthy diet is not only about providing enough nutrition to the body but also enjoying eating. Having poached chicken broccoli and rice does provide enough nutrition while eating clean and healthy, however, food would be a burden instead of a pleasure as a normal human being. In 2023, 1/8 of the population is suffering from obesity and people are desperate to change their daily habits to be leaner. More people are changing their daily diet so much that most of the time are unable to keep the diet for over one month.

People almost 'force-feed' themselves as a reward for eating extra clean and healthy. Some of them may go on a routine of having several days of clean diets, and eat whatever they want in one day. Having too much food in one sitting could severely disturb the digestive system and lead to malfunctions in the pancreas and the stomach. Having humongous sittings and inconsistent dietary habits could also disrupt the routine of one's daily diet. Therefore, building a healthy eating diet is crucial for a healthy life. Create an eating routine along with eating habits that could be done in the long run [10].

A healthy diet doesn't need to be inhumane such as water-poached chicken breast, broccoli, and rice. Adding condiments and flavor to the dish does not make it 'unhealthy', instead, enjoying a relatively more pleasant meal lowers the level of cortisol which allows the body to lose more fat than eating unwillingly. In the meantime, keeping the food pleasant to the palate is far more important than its absolute nutritional value. Such as Cristiano Ronaldo's diet, as one of the strongest athletes, and one of the most successful soccer players, he has one of the best physic. Naturally, his diet would be immaculate. However, this is not the case for Cristiano Ronaldo. His diet contains desserts, fruits, and juice, and none of these are typical 'healthy food'. Although Cristiano is having all of these desserts in his meals, the amount of food in each sitting is relatively small. Such allows him to absorb more nutrition within the day. The desserts allow him to have a break from the all chicken and rice along with the heavy training [8]. From Cristiano Ronaldo's diet, we could also apply the same idea to anyone's daily diet. That is having multiple sittings with a less generous portion in every one of them. Keep the diet adverse so the body can absorb all the nutrition that it needs. Make the diet interesting so the motivation and the pleasure to eat do not get diminished by boring food. Last but not least, have a few desserts, the sweetness largely relieves the stress from one's job or school work or sports career like Cristiano.

It enlightens one's mood and helps people to diet harder by having a treat for themselves once in a while [9].

6. Conclusion.

Eating a healthy diet is much more than eating whatever the influencers are eating and hoping to reach the ideal physic by fasting or eating without one or two essential nutrients. Eating a healthy diet does not mean the same thing for everyone. People who are obese need to control their weight by limiting the total amount of calorie intake, and people who are underweight need to consume more calories in their daily diet to have a healthy diet. People who have high blood pressure or high cholesterol may need to go on a vegetarian diet to have a healthy diet. Thus, having one set of menus and entitling it to a healthy diet is biased and misleading to people who have no previous or little nutritional knowledge. A healthy diet should be a balanced diet, a diet that contains carbohydrates, fibers, vitamins, protein, minerals, and fats. It should also be sustainable so eaters don't get bored out of the eating routine. A healthy diet should not overrule life habits or cultural eating habits, too much of a change may not able to be sustained or practiced on a daily basis, such as having Asian people change their main source of carbohydrates from rice to bread, or having Westerners abandon pasta and switch to rice and buns. A healthy diet should be pleasant to the palate, enjoying food is as important as the nutritional value of the food itself. Being able to enjoy food, especially eating no or minimum amount of heavily processed food could taste not as appealing as burgers, French fries, chips, etc. Having a balanced diet has multiple benefits which include having a longer life span, a better psychological state, a stronger body, stronger immunity, etc. Hence, finding a diet that is most suitable for each individual based upon their own situation instead of blindly following the recipes on the internet.

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