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IP Journal of Nutrition, Metabolism and Health Science

Journal homepage: https://www.jnmhs.com/

Short Communication

Dietary faddism in diabetes: A comprehensive analysis of popular diets and their impact

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Abstract

Dietary faddism refers to the practice of adopting unproven, restrictive, or extreme dietary habits, often based on trends or personal beliefs, rather than scientifically validated evidence. In the management of diabetes, a condition marked by disrupted glucose metabolism, the prevalence of dietary faddism has increased. Popular diets such as ketogenic, paleo, intermittent fasting, and others are often embraced by individuals with diabetes despite a lack of substantial evidence for their long-term effectiveness or safety. This article aims to explore the implications of dietary faddism in diabetes management, analysing the most common diets, their scientific validity, and the potential risks and benefits. Furthermore, this paper highlights the importance of evidence-based dietary interventions in managing diabetes to ensure optimal patient outcomes. It's crucial to approach information about nutrition and food with a critical mind set, seeking evidence-based advice from qualified professionals.

Keywords: Dietary habits, Nutrient deficiencies, Blood glucose, Nutrient deficiencies

Received: 05-03-2025; **Accepted:** 10-04-2025; **Available Online**: 07-05-2025

1. Introduction

The rise of social media, wellness influencers, and rapid access to health information has led to a surge in dietary faddism adherence to trendy diets that promise fast weight loss, improved energy, or better disease control. For individuals with diabetes, a chronic condition that affects insulin production and glucose regulation, diet plays a crucial role in managing blood sugar levels, reducing complications, and improving overall quality of life. However, many people with diabetes are increasingly turning to popular, yet unproven, diets that may not be suitable for their unique needs or long-term health.

While some of these diets are supported by limited evidence, many lack rigorous scientific validation, and others pose potential risks. In this article, we examine the most commonly promoted diets for diabetes and critically assess their effectiveness in managing the disease.

2. Dietary Faddism in Diabetes

The term 'dietary faddism' refers to the adoption of specific dietary practices that are often promoted without robust scientific backing. Such diets are often followed for their perceived health benefits or weight loss effects, which can be particularly appealing to individuals with diabetes who struggle with maintaining blood glucose control and managing weight. However, the potential risks associated with these unproven diets should not be overlooked.

3. Common Dietary Fads among Diabetics

3.1. Ketogenic diet (Keto)

The ketogenic diet, which emphasizes very low carbohydrate intake and high fat consumption, has gained popularity among people with diabetes due to its potential for weight loss and improved blood sugar control. The theory behind the keto diet is that by severely limiting carbohydrate intake, the body enters a state of ketosis, where it burns fat for fuel

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https://doi.org/10.18231/j.ijnmhs.2025.007

instead of glucose. This is thought to help control blood glucose levels.

Evidence: While some short-term studies have suggested that the ketogenic diet may improve glycaemic control and reduce the need for insulin in type 2 diabetes patients, there are concerns about its long-term safety. Studies show that adherence to the ketogenic diet can lead to nutrient deficiencies, liver problems, and an increased risk of cardiovascular disease due to high intake of saturated fats.[1] More rigorous and prolonged studies are needed to fully understand the long-term effects of the ketogenic diet on individuals with diabetes.

3.2. Paleo diet

The paleo diet, based on the premise of consuming foods similar to those eaten by our prehistoric ancestors, emphasizes whole foods such as lean meats, fish, vegetables, fruits, nuts, and seeds, while excluding processed foods, dairy, grains, and legumes. Advocates claim that the paleo diet can improve glucose metabolism and insulin sensitivity.

Evidence: Some studies suggest that the paleo diet may be beneficial for weight loss and improving blood glucose control,[2] particularly in those with type 2 diabetes. However, the exclusion of whole food groups such as grains and legumes can result in nutrient deficiencies and is not a balanced approach for everyone. Long-term studies on its effectiveness in diabetes management are limited.

3.3. Intermittent fasting (IF)

Intermittent fasting involves cycling between periods of eating and fasting. It is often praised for its potential to improve metabolic health, increase insulin sensitivity, and promote weight loss. Some studies suggest that intermittent fasting may help lower blood sugar levels and improve HbA1c in people with type 2 diabetes.

Evidence: Recent studies have shown that intermittent fasting can lead to improvements in glucose metabolism and may be a beneficial adjunctive strategy in diabetes management.[3] However, there is a lack of consensus on the long-term effects of intermittent fasting on diabetes, especially considering the potential risks of hypoglycaemia in individuals on diabetes medication.[4] More research is required to validate the clinical benefits and safety of intermittent fasting in people with diabetes.

3.4. Gluten-free diet

The gluten-free diet is commonly followed by individuals with celiac disease or non-celiac gluten sensitivity. However, some people with diabetes, particularly those with type 1 diabetes, adopt a gluten-free diet without medical indication, believing it will improve their diabetes management.

Evidence: The gluten-free diet does not have substantial evidence supporting its benefit in diabetes management for individuals without celiac disease or gluten sensitivity. In fact, many gluten-free products are highly processed and may contain high amounts of sugar, unhealthy fats, and low nutritional value. There is little scientific evidence to suggest that gluten elimination improves glycaemic control in people with diabetes.[5]

4. Risks of Dietary Faddism in Diabetes

While some of the aforementioned diets may offer short-term benefits, there are potential risks that need to be considered, especially when followed without proper medical guidance:

1. Nutrient Deficiencies: Many fad diets, particularly those that eliminate whole food groups (e.g., the paleo or ketogenic diet), can lead to deficiencies in essential nutrients such as fiber, vitamins, and minerals. These deficiencies can worsen diabetes-related complications and negatively impact overall health.

2. Weight Rebound and Psychological Effects: Restrictive diets may lead to initial weight loss; however, they are often unsustainable. Once individuals return to their previous eating habits, there may be a rapid rebound in weight, which can adversely affect blood glucose control. Additionally, the psychological burden of maintaining strict dietary rules can contribute to disordered eating patterns and poor mental health.

3. Increased Risk of Comorbidities: Diets that promote high fat intake, such as the ketogenic diet, may increase the risk of cardiovascular diseases. Given that individuals with diabetes are already at a higher risk for heart disease, adopting such diets without careful monitoring can worsen health outcomes.

5. The Role of Evidence-Based Nutrition in Diabetes Management

While dietary faddism continues to influence many individuals with diabetes, it is crucial that diabetes management be guided by evidence-based nutritional recommendations. The American Diabetes Association (ADA) provides clear guidelines on the role of diet in managing diabetes, emphasizing a balanced approach that includes moderate carbohydrate intake, high-quality fats, lean proteins, and plenty of fruits and vegetables.

6. Conclusion

Dietary faddism in diabetes presents a significant challenge for both patients and healthcare providers. Although certain diets may offer short-term improvements in blood glucose control, many lack long-term evidence of safety and efficacy. It is essential that individuals with diabetes avoid unproven diets and seek guidance from healthcare providers to develop personalized, evidence-based nutrition plans. This will ensure that diabetes management remains safe, sustainable, and effective over the long term.

7. Source of Funding

None.

8. Conflict of Interest

None.

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Cite this article: Hartalkar A, Hartalkar S. Dietary Faddism in Diabetes: A Comprehensive Analysis of Popular Diets and Their Impact. *IP J Nutr Metab Health Sci*. 2025;8(1):29–31