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IMPACT OF A 7-DAY ALL-FRUIT DIET ON GLYCEMIC CONTROL AND BODY WEIGHT IN INDIVIDUALS WITH TYPE 2 DIABETES

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Abstract

Background: Type 2 diabetes mellitus (T2DM) is a chronic metabolic disorder characterized by insulin resistance, impaired glucose tolerance, and progressive β -cell dysfunction, leading to persistent hyperglycemia. Traditionally, individuals with T2DM are advised to limit fruit consumption due to concerns over natural sugars. However, emerging evidence suggests that whole fruits may support metabolic health by improving insulin sensitivity and glycemic regulation.

Objective: This study evaluated the short-term effects of an exclusively fruit-based diet on glycemic control, body weight, and overall metabolic well-being in individuals with T2DM.

Methods: Thirty-two adults with type 2 diabetes participated in a 7-day all-fruit dietary intervention. Participants consumed 3–4 mono-meals of fruit daily, with individual meals consisting of 500 to 1000 grams of fruit. Self-reported data on dietary intake, symptoms, fasting blood glucose (FBG), and body weight (BW) were collected pre- and post-intervention for analysis.

Results: The intervention resulted in a mean weight loss of 2.7 kg and an average decrease in FBG of 1.02 mmol/L. No serious adverse effects were reported.

Conclusion: A short-term, all-fruit diet appears to be safe and effective in improving glycemic control and reducing body weight in people with T2DM. Further research with larger sample sizes and controlled conditions is warranted to validate these findings and assess long-term outcomes.

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Introduction: -

Type 2 diabetes mellitus (T2DM) is one of the most pressing global health concerns, driven by physical inactivity, poor dietary patterns, and rising obesity rates. It is characterized by insulin resistance, progressive β -cell dysfunction, and chronic hyperglycemia (Galicia-Garcia et al., 2020).

Management strategies for T2DM often include medication, exercise, and dietary regulation, with fruits traditionally being limited due to concerns over their natural sugar content. However, evidence suggests that plant-based diets—particularly those rich in fruits and vegetables—can reduce the risk of diabetes and improve insulin sensitivity (Wang et al., 2023).

Fruits are nutrient-dense, rich in fiber, antioxidants, phytochemicals, and essential micronutrients, which may contribute to improved glycemic control and metabolic function. Meta-analyses have shown that regular fruit consumption may reduce fasting blood glucose and overall diabetes risk (Ren et al., 2023; Bondonno et al., 2021). Furthermore, observational studies have linked frequent fruit intake to better glucose regulation among people with diabetes (Su et al., 2019).

Despite these findings, few studies have investigated the safety and effectiveness of an all-fruit diet in diabetic individuals. This study aims to address that gap by examining the short-term effects of a fruit-only dietary intervention on fasting blood glucose and body weight in adults with T2DM.

Methods: -

Study Design and Participants

This retrospective observational study included 32 individuals with T2DM enrolled in Dr. Kamalpreet Singh's online Diabetes Reversal Coaching Program. The 7-day intervention took place in June 2025. Participants ranged in age from 27 to 61 years (mean: 45), with baseline body weights between 47 and 108 kg (mean: 79.7 kg), and fasting blood glucose levels ranging from 5.5 to 13.9 mmol/L (mean: 7.93 mmol/L).

Data Collection: -

Participants provided baseline data on age, weight, and fasting blood glucose. Throughout the study, they documented daily fruit intake (type and quantity), adherence, and any symptoms experienced. Final weight and fasting glucose measurements were submitted after the 7-day period.

Dietary Protocol

Participants followed a strict all-fruit regimen, consuming 3–4 mono-meals daily, each consisting of 500–1000 grams of a single fruit type. No other food items or beverages (except water) were allowed. Meals were consumed to satiety without calorie counting. Participant experiences and compliance were monitored via scheduled check-ins.

Results:-

Changes in Weight and Glycemic Control

After 7 days, participants experienced the following changes:

- **Weight Loss:** Average reduction of **2.7 kg**, from 79.7 kg to 77.0 kg.
- **Fasting Blood Glucose:** Average reduction of **1.02 mmol/L**, from 7.93 mmol/L to 6.91 mmol/L.

Discussion:-

The observed reductions in fasting glucose and body weight suggest that a short-term fruit-only diet may have therapeutic potential in individuals with T2DM. These results support findings from Ren et al. (2023), who reported significant reductions in fasting glucose following fruit interventions in diabetic patients. Moreover, Bondonno et al. (2021) found that consuming two or more servings of fruit per day was associated with a 36% lower risk of developing type 2 diabetes.

The anti-inflammatory, antioxidant, and fiber-rich properties of fruits likely play a role in improving insulin sensitivity and lowering glycemic load (Wang et al., 2023). A Chinese study also observed improved glycemic control in diabetic patients with regular fresh fruit consumption (Su et al., 2019).

However, several limitations must be noted:

- **Short Duration:** Limits assessment of sustainability and long-term metabolic impacts.
- **Lack of Control Group:** Makes it difficult to attribute effects solely to the dietary intervention.
- **Self-Reported Data:** Potential for bias in reporting intake and biomarker changes.

Nonetheless, this study offers valuable preliminary evidence supporting fruit-based strategies for glycemic control.

Conclusion:-

A 7-day all-fruit diet led to measurable improvements in fasting blood glucose and body weight in individuals with type 2 diabetes. While the short-term results are promising, further research involving randomized controlled trials and longer interventions is needed to evaluate the diet's safety, adherence, and long-term metabolic effects.

References:-

1. Galicia-Garcia, U., Benito-Vicente, A., Jebari, S., Larrea-Sebal, A., Siddiqi, H., Uribe, K. B., Ostolaza, H., & Martín, C. (2020). Pathophysiology of Type 2 Diabetes Mellitus. *International Journal of Molecular Sciences*, 21(17), 6275. <https://doi.org/10.3390/ijms21176275>
2. Wang, Y., Liu, B., Han, H., et al. (2023). Associations between plant-based dietary patterns and risks of type 2 diabetes, cardiovascular disease, cancer, and mortality – a systematic review and meta-analysis. *Nutrition Journal*, 22, 46. <https://doi.org/10.1186/s12937-023-00877-2>
3. Ren, Y., Sun, S., Su, Y., Ying, C., & Luo, H. (2023). Effect of fruit on glucose control in diabetes mellitus: a meta-analysis of nineteen randomized controlled trials. *Frontiers in Endocrinology*, 14, 1174545. <https://doi.org/10.3389/fendo.2023.1174545>
4. Su, J., Qin, Y., Pan, X.Q., Shen, C., Gao, Y., Pan, E.C., Zhang, Y.Q., Zhou, J.Y., Wu, M. (2019). Association between fresh fruit consumption and glycemic control in patients with type 2 diabetes. *Zhonghua Liu Xing Bing Xue Za Zhi*, 40(6), 660–665. <https://doi.org/10.3760/cma.j.issn.0254-6450.2019.06.011>
5. Bondonno, N.P., Davey, R.J., Murray, K., et al. (2021). Associations Between Fruit Intake and Risk of Diabetes in the AusDiab Cohort. *Journal of Clinical Endocrinology & Metabolism*, 106(10), e4097–e4108. <https://doi.org/10.1210/clinem/dgab335>.