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EDITORIAL

NUTRITION CENTRAL ROLE IN PREVENTING AND MANAGING TYPE 2 DIABETES

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The escalating global prevalence of Type 2 Diabetes Mellitus (T2DM) necessitates a re-evaluation of current management strategies, placing a stronger emphasis on the foundational role of nutrition. While pharmacological interventions and physical activity are crucial, growing evidence confirms that targeted dietary strategies are pivotal for both T2DM prevention and long-term management.[1] This requires a paradigm shift from merely avoiding certain foods to focusing on nutrient-dense dietary patterns that promote metabolic health, recognizing that what we include in our diet is as vital as what we exclude for optimal physiological function.[1] One of the most impactful dietary components is dietary fiber, found abundantly in whole grains, legumes, fruits, and vegetables. Numerous studies have consistently demonstrated the benefits of adequate fiber intake in improving glycemic control, enhancing satiety, and supporting healthy weight management, a crucial aspect of T2DM prevention and management.[2] Fiber slows down glucose absorption, preventing sharp post-meal blood sugar spikes, and contributes to a healthy gut microbiome, which is increasingly recognized for its role in metabolic health.

Prioritizing the quality of dietary fats is crucial, as shifting towards unsaturated fats from sources like avocados and olive oil can enhance insulin sensitivity and improve cardiovascular health in individuals with T2DM.[3] These beneficial fats possess anti-inflammatory properties, helping the body respond better to insulin, whereas excessive intake of unhealthy saturated and trans fats can lead to insulin resistance and increased cardiovascular risks.[3] Additionally, limiting refined carbohydrates and added sugars is paramount for glucose management; their rapid digestion causes sharp blood sugar spikes, exacerbating insulin resistance and burdening the pancreas.[1] It's essential to prioritize whole, unprocessed carbohydrates and natural sweetness from fruits. Beyond individual nutrients, adopting holistic dietary patterns like the Mediterranean, plant-based, or DASH (Dietary Approaches to Stop Hypertension) diets consistently shows strong associations with reduced T2DM risk and improved outcomes.[4,5] These patterns, rich in balanced macro and micronutrients, emphasize fruits, vegetables, whole grains, and healthy fats, proving effective in improving glycemic control and reducing cardiovascular risk factors.[5]

Effectively translating this robust nutritional science into actionable, accessible, and culturally appropriate dietary guidelines is a collective responsibility for the scientific community, healthcare providers, and policymakers. It requires a collaborative effort to move beyond generic advice and provide personalized, evidence-based recommendations that consider individual preferences and cultural contexts. Empowering individuals with evidence-based nutritional knowledge represents a potent, first-line defense against the ongoing T2DM epidemic and is fundamental to fostering sustained metabolic well-being. By prioritizing nutrition, we can empower individuals to take an active role in their health, mitigate the burden of T2DM, and improve the overall quality of life for millions.

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