

# Comprehensive Medical Nutrition Therapy for Diabetes with a Focus on Individualized Care

Helena Schubert\*

Department of Nutritional Epidemiology, Frankfurt Institute of Health Sciences, Frankfurt, Germany

## DESCRIPTION

Medical Nutrition Therapy (MNT) remains a cornerstone in the comprehensive management of diabetes, providing not only glycemic control but also significant benefits in mitigating comorbid conditions and enhancing overall quality of life. As the global burden of diabetes continues to rise, with type 2 diabetes being the predominant form, a shift in both individualized care and evidence-based nutrition guidelines has become increasingly vital. Current recommendations emphasize a patient-centered approach that considers the individual's preferences, cultural backgrounds, socioeconomic status and readiness for change, while incorporating the most up-to-date scientific evidence.

One of the key principles of modern MNT for people with diabetes is personalization. There is no dietary pattern, and recommendations are individualized based on age, physical activity, metabolic goals, type of diabetes, and the presence of complications. While carbohydrate management remains central to glycemic control, the focus has shifted from merely reducing carbohydrate intake to choosing quality sources. Whole grains, legumes, non-starchy vegetables, fruits with low glycemic indices and dairy products are encouraged, while added sugars and refined carbohydrates are limited. The use of carbohydrate counting or experience-based estimation helps patients regulate postprandial glucose excursions effectively.

Recent evidence supports the efficacy of various dietary patterns in diabetes management, including the Mediterranean diet, low-carbohydrate diets, vegetarian and plant-based diets and the Dietary Approaches to Stop Hypertension (DASH) diet. The Mediterranean diet, in particular, has shown consistent benefits in reducing cardiovascular risk and improving glycemic parameters due to its emphasis on monounsaturated fats, fiber-rich foods and antioxidants. Similarly, plant-based diets, when appropriately balanced, can enhance insulin sensitivity and reduce the risk of cardiovascular disease, a common complication of diabetes.

Protein intake is another important component of MNT, with recommendations suggesting that adults with diabetes consume the same amount as the general population, approximately 15%-20% of total daily calories, unless kidney disease is present. Protein sources should ideally be lean or plant-based, such as legumes, tofu, fish, poultry and low-fat dairy. In individuals with diabetic kidney disease, protein intake may be moderated to slow the progression of nephropathy, although current guidelines discourage overly restrictive protein diets.

Fat quality, rather than quantity, is emphasized in current guidelines. Replacing saturated fats with monounsaturated and polyunsaturated fats can improve lipid profiles and reduce cardiovascular risk. This shift includes minimizing trans fats and saturated fats from processed foods and favoring sources such as olive oil, nuts, seeds and fatty fish. The incorporation of omega-3 fatty acids from sources like fish oil has shown benefits in reducing triglyceride levels, though not consistently in lowering cardiovascular events. Nonetheless, regular fish consumption is still encouraged as part of a heart-healthy diet.

Fiber intake is another cornerstone, with a recommended daily intake of at least 14 grams per 1,000 kcal, which translates to roughly 25-30 grams per day. Dietary fiber, especially soluble fiber, slows gastric emptying and glucose absorption, thereby contributing to improved glycemic control and satiety. Encouraging intake of fiber-rich foods such as fruits, vegetables, whole grains, legumes and nuts aligns with overall health promotion.

Weight management is often a crucial goal in individuals with type 2 diabetes, particularly those who are overweight or obese. Modest weight loss of 5%-10% of baseline body weight has been associated with improved glycemic control and cardiovascular outcomes. Strategies include calorie reduction, portion control, increased physical activity and behavioral interventions. Meal replacements, structured meal plans and the use of technology-assisted tracking tools may be employed to support weight loss goals, especially when supervised by a registered dietitian or diabetes educator.

**Correspondence to:** Helena Schubert, Department of Nutritional Epidemiology, Frankfurt Institute of Health Sciences, Frankfurt, Germany, E-mail: [helena.schubert@fihs.de](mailto:helena.schubert@fihs.de)

**Received:** 24-Jan-2025, Manuscript No. JNFS-25-37224; **Editor assigned:** 27-Jan-2025, PreQC No. JNFS-25-37224 (PQ); **Reviewed:** 10-Feb-2025, QC No. JNFS-25-37224; **Revised:** 17-Feb-2025, Manuscript No. JNFS-25-37224 (R); **Published:** 24-Feb-2025, DOI: 10.35248/2155-9600.25.15.57

**Citation:** Schubert H (2025). Comprehensive Medical Nutrition Therapy for Diabetes with a Focus on Individualized Care. *J Nutr Food Sci.* 15:57.

**Copyright:** © 2025 Schubert H. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

In conclusion, current medical nutrition therapy for people with diabetes is rooted in personalization, flexibility and evidence-based practices. The recommendations aim not just to manage blood glucose, but to address the broader metabolic needs of the

individual while respecting cultural and personal preferences. When effectively implemented and supported by a multidisciplinary team, MNT serves as a powerful therapeutic tool capable of transforming the trajectory of diabetes care.