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Food Insecurity in War and Its Impact on Patients with Diabetes

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LETTER TO EDITOR

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Dear editor,

War disrupts nearly every determinant of health, but its effects on nutrition and chronic disease management are particularly devastating (Marzban *et al.*, 2023). Among people living with diabetes, adequate and regular food intake is not a secondary need but a fundamental component of treatment (Al-Roomi *et al.*, 2025). Glycemic control depends not only on medication adherence, but also on predictable meal patterns, balanced nutrient intake, and stable living conditions (Alnabih *et al.*, 2024). In conflict-affected settings, however, these basic requirements are often impossible to maintain. As a result, food insecurity in war becomes a major barrier to diabetes self-management and a serious threat to patient safety (Marzban and Sadeghi-Nodoushan, 2025).

The relationship between war, food insecurity, and diabetes is multidimensional. Armed conflict often destroys farmland, interrupts food production, damages storage and transportation systems, and limits market access (Alessi and Yankiv, 2022). It also reduces household income, displaces communities, and makes food prices unaffordable for many families. In such settings, patients with diabetes may be forced to skip meals, reduce portion sizes, or rely on low-quality, carbohydrate-heavy food items with little nutritional value (Sambasivam *et al.*, 2024). These changes can cause marked fluctuations in blood glucose levels and increase the risk of both acute and chronic complications. Hypoglycemia may occur when patients continue to use glucose-lowering medications without adequate food intake, while hyperglycemia may result from irregular eating patterns, stress, and poor access to medical care (Ahmed *et al.*, 2023).

Food insecurity in war also has indirect but equally important consequences. Displacement and overcrowding can make it difficult to prepare appropriate meals or store food safely (Kiro *et al.*, 2023). The loss of refrigeration and electricity may compromise the storage of insulin and other temperature-sensitive medications. In addition, patients may lack access to diabetes education, glucose monitoring supplies, and routine follow-up (Sulaieva *et al.*, 2025). These challenges are often more severe among vulnerable subgroups,

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including children, older adults, pregnant women, refugees, and individuals with preexisting complications or low socioeconomic status. For these populations, the combination of malnutrition, stress, infection risk, and interrupted care can rapidly worsen metabolic instability (Boulton *et al.*, 2025).

Psychological stress deserves special attention, as war-related trauma may further impair diabetes control through hormonal and behavioral pathways (Sulaieva *et al.*, 2025). Elevated stress levels can increase counter-regulatory hormones, worsen insulin resistance, and promote unhealthy coping behaviors (Boulton *et al.*, 2025). At the same time, disrupted sleep, fear, and uncertainty may reduce treatment adherence and self-care capacity (Alessi and Yankiv, 2022). Therefore, the health burden of food insecurity in war is not limited to the absence of calories; it includes reduced diet quality, impaired treatment continuity, and a broader collapse of supportive environments necessary for chronic disease management (Ahmed *et al.*, 2023).

From a public health perspective, food security should be considered an essential part of diabetes care in humanitarian and conflict settings (Sulaieva *et al.*, 2025). Emergency responses should include the provision of diabetes-appropriate food supplies, culturally acceptable nutrition support, and targeted aid for patients with chronic diseases (Boulton *et al.*, 2025). Integrating nutrition screening into relief programs, ensuring access to insulin and glucose-monitoring tools, and training healthcare workers in disaster-responsive diabetes management are practical steps that may reduce preventable complications. In addition, policy frameworks should recognize people with diabetes as a priority group in food distribution systems during war (Kiro *et al.*, 2023).

War-related food insecurity is a critical and often under-recognized determinant of poor outcomes among patients with diabetes. It affects not only dietary intake, but also medication safety, metabolic control, psychological well-being, and access to essential care. Addressing this problem requires coordinated action across humanitarian, clinical, and policy domains. Strengthening emergency nutrition systems, protecting chronic disease services, and tailoring aid to the needs of people with diabetes are necessary steps to reduce avoidable morbidity and mortality in conflict settings. It is believed that greater scholarly attention to this issue will help inform more effective, equitable, and patient-centered responses in future crises.

Your sincerely

Ameneh Marzban

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