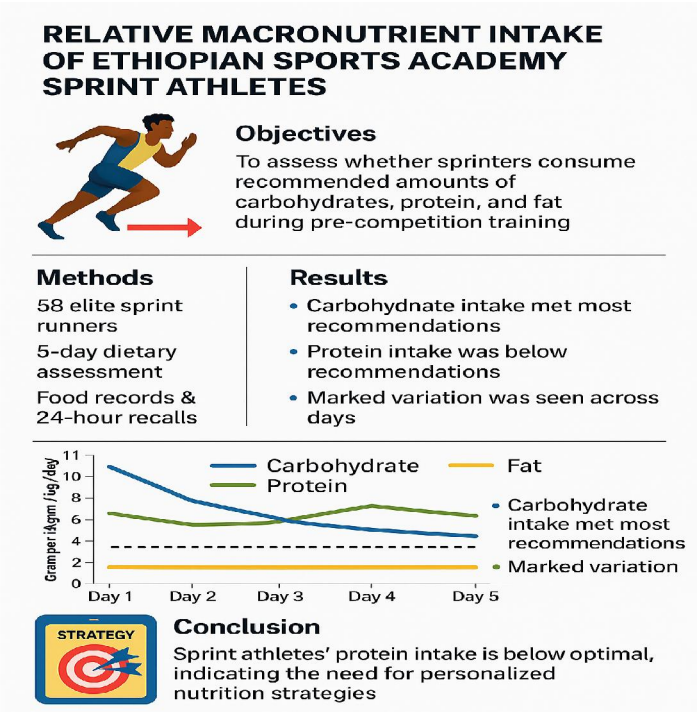
IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 1, August 2025
Impact Factor: 7.67

Relative Macronutrient Intake among Ethiopian Sport Academy Sprint Athletes: A Pre-Competition Analysis

Dafla Kifle Ibsa
Department of Physical Education and Sport Science
Andhra University, Visakhapatnam, Andhra Pradesh, India

Abstract: *This study evaluated the daily macronutrient intake of elite Ethiopian sprint athletes during a pre-competition training phase, analysing their consumption patterns with international sports nutrition guidelines. Direct dietary record and observational study involved 58 national-level sprinters (aged 15–21), during which their dietary intake was documented through weighed food records and validated 24-hour recalls over five consecutive days. The estimation of total energy expenditure (TEE) was conducted using the Schofield Equation, which was modified according to sprint-specific physical activity levels (PALs). Macronutrient intake was presented in grams per kilogram of body weight per day (g/kg/day). The results indicated that carbohydrate intake adhered to recommendations on Days 1, 3, and 4, whereas protein intake was adequate only on Days 2 and 5. Fat intake remained within the optimal range on all days except Day 1. The findings highlight the variability in dietary patterns and the need for customised nutritional education and periodisation for sprint athletes in Ethiopia.*

Keywords: sports nutrition, sprint athletes, carbohydrate intake, protein intake, fat intake, Ethiopia



DOI: 10.48175/IJARSCT-28651