ANHI July 2025 Nutrition Research Review

Plant-Based Diets and Child Growth

Publication: Current Opinion in Clinical Nutrition and Metabolic Care
Publish Date: March 2025 (Epub ahead of print)
Authors: Meyer R, Protudjer JL

SUMMARY

Meyer and Protudjer review current evidence on plant-based diets and their impact on child growth. They highlight that while well-planned vegetarian and vegan diets can support normal growth, they may pose risks for nutrient deficiencies—particularly in iron, vitamin B12, and protein—if not carefully managed. The authors emphasize the importance of diet quality, appropriate supplementation, and regular monitoring to ensure nutritional adequacy. They call for more longitudinal studies to assess long-term outcomes of plant-based diets in children across diverse settings.

READ ARTICLE

Malnutrition in Older Adults

Publication: The New England Journal of Medicine
Publish Date: June 2025
Authors: Cruz-Jentoft AJ, Volkert D

SUMMARY

Malnutrition affects approximately 50% of older adults in clinical settings and is associated with serious adverse outcomes, including functional decline, increased complications, and higher mortality. This review outlines the multifactorial causes of malnutrition in aging populations, including physiological changes, chronic diseases, cognitive impairment, medications, and social isolation. The Global Leadership Initiative on Malnutrition (GLIM) criteria are recommended for diagnosis, supported by validated screening tools such as the Mini Nutritional Assessment (MNA). Effective guideline-based strategies are available, including individualized nutritional care, routine screening, and interventions such as food fortification, oral nutritional supplements, and supportive services. Recommended intake targets are 30 kcal/kg body weight and at least 1 g protein/kg per day. Oral nutritional supplements are advised when dietary counseling and food fortification are insufficient to meet nutritional goals. The article emphasizes early detection, comprehensive geriatric assessment, and multidisciplinary care to improve outcomes and quality of life in older adults.

READ ARTICLE

A Central Role of Nutrition in Cognitive Function Among Primary School Children: A Cross-Sectional Analysis

Publication: BMC Nutrition
Publish Date: February 2025
Authors: Samigullin A, Gählert J, Groß G, Morcos M, Schwertz R, Öste R, Siegel E, Humpert P

SUMMARY

This cross-sectional study by Samigullin et al. assessed 256 German primary school children to examine associations between weight status, nutrition, and cognitive function. Using KiTAP cognitive tests and dietary assessments, the authors found no significant correlation between anthropometric measures and cognitive performance. However, nutrition showed strong associations with cognitive flexibility, particularly reaction time, which correlated negatively with fat intake ($R = -0.35$), total kilocalories ($R = -0.30$), and protein ($R = -0.30$), all $p < 0.001$. The findings underscore nutrition's central role in cognitive function, independent of weight status.

READ ARTICLE

Nutritional Deficiencies and Muscle Loss in Adults with Type 2 Diabetes Using GLP-1 Receptor Agonists: A Retrospective Observational Study

Publication: Obesity Pillars
Publish Date: July 2025
Authors: Butsch WS, Sulo S, Chang AT, Kim JA, Kerr KW, Williams DR, Hegazi R, Panchalingam T, Goates S, Heymsfield SB

SUMMARY

This retrospective study analyzed healthcare claims from over 460,000 adults prescribed GLP-1 receptor agonists (GLP-1RAs) to assess nutritional deficiencies and muscle loss. Within 12 months of treatment, 22.4% were diagnosed with nutritional deficiencies, with vitamin D deficiency being most common (13.6%). A matched cohort analysis showed higher deficiency rates in GLP-1RA users compared to metformin-only users. Patients who had a dietitian visit within six months of treatment initiation were more likely to be diagnosed with deficiencies, suggesting increased detection rather than causation. The findings underscore the importance of nutritional monitoring in patients using GLP-1RAs.

READ ARTICLE

Early Predictors of Induction of Remission with Exclusive Enteral Nutrition in Children with Crohn's Disease

Publication: BMC Pediatrics
Publish Date: March 2025
Authors: Hu Y, Lv Y, Lou J, Luo Y, Yang G, Liu Y, Zhou J, Zhen C, Yu J, Fang Y, Zhao H, Peng K, Ni Y, Chen J

SUMMARY

This retrospective study by Hu et al. identified early laboratory predictors of clinical remission (CR) and mucosal healing (MH) in children with Crohn's disease undergoing exclusive enteral nutrition (EEN). Among 112 patients, higher baseline levels of indirect bilirubin (IBIL), CD3+ T cells, and serum iron were associated with reduced CR rates. Elevated interleukin-10 and red cell distribution width predicted lower MH rates. Predictive models showed strong performance (AUCs: CR = 0.93 derivation, 0.82 validation; MH = 0.87 derivation, 0.66 validation), supporting their potential for early treatment stratification.

READ ARTICLE

Emerging Evidence and Potential Avenues to Achieve Durable Outcomes in Patients with Obesity: The Confluence of Nutrition and Microbiome on Body Composition

Publication: Reviews in Endocrine and Metabolic Disorders
Publish Date: July 2025
Authors: Correia MITD, Kapoor N, Chávez-Manzanera E, Gowdak LHW, Al Kharusi A, Casanueva FF, Halpern B, Frost G, Aldahash R

SUMMARY

This review explores the complex interplay between obesity, nutrition, muscle mass, and the gut microbiome. It emphasizes that obesity is a chronic, multifactorial disease requiring integrated care strategies, including medical nutrition therapy (MNT), to prevent muscle loss and micronutrient deficiencies. The article highlights the importance of adequate protein intake during weight loss to preserve lean body mass and discusses the emerging role of the gut microbiome in influencing nutrient metabolism, muscle function, and overall health. While evidence linking microbiome composition to obesity outcomes is still developing, the authors advocate for personalized nutrition approaches that support both muscle preservation and microbiome health.

READ ARTICLE

Children with Disorders of Gut–Brain Interaction in Primary Care Versus Hospital Care: A Comparison of Characteristics

Publication: Journal of Pediatric Gastroenterology and Nutrition
Publish Date: June 2025
Authors: Ganzevoort IN, Berger MY, Vlieger AM, Benninga MA, De Boer MR, Holtman GA

SUMMARY

This cross-sectional analysis compared 367 Dutch children (aged 8–17) with functional abdominal pain (FAP) or irritable bowel syndrome (IBS) across primary (n=110) and hospital care (n=257) settings. Children in primary care were younger and had lower abdominal pain intensity, frequency, and somatisation scores, as well as less school absenteeism. Other psychosocial and clinical characteristics were similar. The findings suggest that children in primary care may present with milder symptoms, raising concerns about generalizing hospital-based treatment outcomes to primary care. The study highlights the need for primary care-specific research to guide treatment and referral decisions.

READ ARTICLE

Identification of Priority Nutrients in the US: Targeting Malnutrition to Address Diet-Related Disease Across the Lifespan

Publication: Nutrients
Publish Date: June 2025
Authors: Starck CS, Cassettari T, Beckett E, Duve E, Fayet-Moore F

SUMMARY

Researchers analyzed nutrient intake patterns across U.S. demographic groups to identify key nutrients linked to both malnutrition and chronic disease. Ten nutrients were found to be inadequately consumed, with vitamin D, vitamin E, calcium, magnesium, and dietary fiber prioritized for the general population due to their

widespread insufficiency and relevance to major health outcomes. The study emphasized that current intake levels may fall short of supporting optimal health, particularly for vitamin D and calcium. These findings support the inclusion of priority nutrients in national dietary guidelines to help reduce the burden of chronic disease.

READ ARTICLE

Relationship Between Timing of Achieving Energy Sufficiency and Clinical Outcomes in Critically Ill Patients

Publication: Frontiers in Nutrition
Publish Date: June 2025
Authors: Yue X, Zhu X, Li Y, Huang X, Lyu Q

SUMMARY

Achieving adequate energy intake within a specific timeframe may significantly influence survival in critically ill patients. This prospective observational study of 584 ICU patients examined the timing of reaching energy sufficiency (≥70% of 17.5 kcal/kg/day) and its association with clinical outcomes. Patients who achieved energy sufficiency between days 4–7 had the lowest in-hospital (15.6%) and 60-day mortality (28.5%), compared to those who reached it later. Both early (≤3 days) and middle timing were independent protective factors for 60-day mortality. A nonlinear dose–response analysis identified day 6 as a critical threshold. These findings support targeting energy sufficiency within 4–6 days of ICU admission.

READ ARTICLE

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