ANHI October 2025 Nutrition Research Review

Artificial Intelligence–Assisted Rectus Femoris Ultrasound vs. L3 Computed Tomography for Sarcopenia Assessment in Oncology Patients: Establishing Diagnostic Cut-Offs for Muscle Mass & Quality

Publication: Frontiers in Nutrition
Publish Date: September 2025
Authors: López-Gómez JJ, Sánchez-Lite I, Fernández-Velasco P, Izaola-Jauregui O, Cebriá Á, Pérez-López P, González-Gutiérrez J, Estévez-Asensio L, Primo-Martín D, Gómez-Hoyos E, Jorge-Godoy E, De Luis-Román DA

SUMMARY

Artificial intelligence–assisted ultrasound of the rectus femoris was evaluated as a diagnostic tool for sarcopenia in oncology patients and compared with L3 computed tomography. Among 337 participants, ultrasound-derived muscle mass and quality parameters showed moderate correlations with CT-based metrics. Sex-specific ultrasound cut-off values were identified, demonstrating high negative predictive value for low muscle mass and high positive predictive value for myosteatosis. The findings support AI-enhanced ultrasonography as a feasible, non-invasive method for bedside assessment of muscle mass and quality in nutritional oncology practice, with potential for broader clinical application and future validation.

READ ARTICLE

Applying the Malnutrition Care Score Framework to Pediatric Populations: Implications for Enhancing Health Equity

Publication: Journal of the Academy of Nutrition and Dietetics
Publish Date: September 2025 (Supplement 1)
Authors: Gollins LA, Phillips W, Becker PJ, Bellini SG, Wong Vega M

SUMMARY

This practice-focused article explores the application of the Malnutrition Care Score (MCS) framework in pediatric populations to improve early detection and intervention for malnutrition. The authors argue that MCS implementation can enhance health equity by standardizing nutrition care across diverse settings and populations. Key components of the MCS include validated screening, assessment by registered dietitian nutritionists (RDNs), physician-confirmed diagnosis, and individualized nutrition care plans. The article emphasizes the importance of integrating MCS into electronic medical records (EMRs) to streamline documentation and support data-driven quality improvement. Barriers such as limited pediatric RDN workforce, institutional variability, and automation inequities are discussed, along with strategies for sustainable

implementation. The authors advocate for interprofessional collaboration, workforce training, and policy support to ensure equitable access to high-quality nutrition care for all children.

READ ARTICLE

Perspectives in Practice: Updates on Diagnosing Malnutrition in Adults in Clinical Settings

Publication: Journal of the Academy of Nutrition and Dietetics
Publish Date: September 2025
Authors: Compher CW, Jensen GL, Aloupis M, Steiber A

SUMMARY

This article compares two leading approaches for diagnosing malnutrition in adults—AAIM (Academy/ASPEN Indicators of Malnutrition) and GLIM (Global Leadership Initiative on Malnutrition). Both frameworks recognize inflammation as a key contributor to disease-related malnutrition and share core criteria such as weight loss and reduced muscle mass. However, AAIM includes additional variables like fat loss, edema, and handgrip strength, while GLIM incorporates low BMI. Differences in weight loss thresholds and timeframes may affect insurance claim approvals. The authors recommend documenting overlapping criteria and aligning treatment plans with diagnosis severity to support reimbursement. Harmonizing AAIM and GLIM could improve clinical outcomes and billing practices.

READ ARTICLE

Functional Gastrointestinal Disorders are Highly Prevalent in Children with Short Stature and Linked to Reduced Growth Velocity

Publication: Journal of Pediatric Gastroenterology and Nutrition
Publish Date: September 2025
Authors: Bai X, Guo X, Zhou Z, Liu S, He Y, Yang H, Zhu H, Pan H, Li X

SUMMARY

This cross-sectional study examined 103 children with untreated short stature to assess the prevalence of functional gastrointestinal disorders (FGIDs) and their impact on growth. Using Rome IV criteria, the authors found that 48.5% of participants had FGIDs, with functional dyspepsia (31.1%) and functional constipation (21.4%) being most common. Children with FGIDs exhibited significantly lower growth velocity compared to those without FGIDs ($p = 0.001$). Multivariable regression confirmed an independent association between FGIDs and reduced growth velocity ($\beta = -0.97$, $p = 0.020$). The findings highlight the need for clinicians to consider FGIDs as a contributing factor to growth failure in children with short stature.

READ ARTICLE

Improving Aging-Related Frailty Status Among Older Adults: Results of a Nutrition-Focused Program

Publication: Clinical Nutrition Open Science
Publish Date: September 2025
Authors: Cano-Gutierrez C, Venegas-Sanabria LC, Gomez G, Chacón-Valenzuela E, Dueñas MF, Gracia D, Misas JD, Garcia-Cifuentes E, Sulo S, Rodríguez-Mañas L

SUMMARY

A nutrition-focused intervention was implemented among 524 Colombian older adults identified as prefrail or frail and at risk of malnutrition. Over 90 days, participants received dietary counseling, physical activity guidance, and daily oral nutritional supplements. By study end, 34% improved their frailty status and 55% met fewer frailty criteria. Improvements in nutritional status were strongly associated with better frailty outcomes, including enhanced cognitive function, reduced depression, and increased independence. Those transitioning to a non-frail state were nearly eight times more likely to show nutritional improvement. These findings support integrating nutrition care into outpatient settings to promote healthier aging.

READ ARTICLE

Resurgence of Iodine Deficiency in the United States during Pregnancy: Potential Implications for Cognitive Development in Children

Publication: Nutrition Reviews
Publish Date: October 2025
Authors: Daniel KS, Mangano KM

SUMMARY

This review highlights a concerning resurgence of iodine deficiency among pregnant women in the United States and its potential impact on child cognitive development. The authors synthesize recent data showing declining iodine intake due to reduced consumption of iodized salt and changes in dietary patterns. Iodine is essential for fetal brain development, and deficiency during pregnancy is linked to impaired neurodevelopment and lower IQ in offspring. The review calls for renewed public health

efforts to monitor iodine status, promote dietary sources, and consider supplementation strategies to safeguard maternal and child health.

READ ARTICLE

Evolution of Multidisciplinary Obesity Treatments: Past, Present & Future Role of Nutrition

Publication: Obesity (Silver Spring)
Publish Date: September 2025
Authors: Heymsfield SB, Atherton PJ, Christensen S, Tewksbury C, Velazquez A, Walter J, Blaak EE

SUMMARY

This review explores the evolving landscape of obesity treatment, emphasizing the critical role of nutrition in preserving lean body mass during weight loss. Alongside lifestyle counseling and bariatric procedures, new obesity medications offer promising outcomes. However, these interventions risk loss of skeletal muscle and bone, making adequate protein and micronutrient intake essential. The authors highlight targeted strategies such as leucine and β-hydroxy-methylbutyrate supplementation and the potential of gut microbiome support. Recognizing obesity as a heterogeneous disease, the review advocates for precision nutrition tailored to individual metabolic phenotypes. A multidisciplinary approach is recommended to address physiological, behavioral, and psychosocial factors in obesity care.

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