Visceral proteins such as serum albumin and prealbumin have traditionally been considered useful biochemical laboratory values in nutrition assessment, however research evidence and literature has not supported the use of these proteins. This ASPEN position paper explains that these proteins characterize inflammation rather than describe nutrition status or malnutrition. Further, this position paper states that while there is an association between inflammation and malnutrition, however there is not an association between malnutrition and visceral protein levels. Therefore the recommendation from this expert committee is that serum albumin and prealbumin should not serve as proxy measures of total body protein or total muscle mass and should not be used as nutrition markers.
Prevalence & Severity of Malnutrition in Hospitalized COVID-19 Patients

Publication: Clin Nutr ESPEN
Publish Date: 2020 Dec
Authors: Dorothée Bedock, Pierre Bel Lassen, Alexis Mathian, Pauline Moreau, Julie Couffignal, Cécile Ciangura, Christine Poitou-Bernert, Anne-Caroline Jeannin, Helena Mosbah, Jehane Fadlallah, Zahir Amoura, Jean-Michel Oppert, Pauline Faucher

This observational study from France assessed malnutrition in hospitalized COVID-19 patients, investigated the associations between malnutrition and disease severity at admission, and examined the impact of malnutrition on clinical outcomes such as transfer to an intensive care unit (ICU) or death. The study included 114 patients hospitalized in a medicine ward and showed that the overall prevalence of malnutrition was 42.1% (moderate: 23.7%, severe: 18.4%) and 66.7% in patients admitted from ICU. The study showed no significant association between nutritional status and clinical signs of COVID-19, but that lower albumin levels were associated with a higher risk of transfer to ICU and this association was independent of age and CRP levels. Overall, this study demonstrated that COVID-19 is associated with a high prevalence of malnutrition, especially for patients transferred from ICU. Further, these data emphasize the importance of early nutrition screening in these patients to implement impactful management strategies.

READ ARTICLE

Height & Body Mass Index Trajectories of School-aged Children & Adolescents from 1985 to 2019 in 200 Countries & Territories: A Pooled Analysis of 2181 Population-based Studies with 65 Million Participants

Publication: Lancet
Publish Date: 2020, Nov
Authors: NCD Risk Factor Collaboration (NCD-RisC)

Much of global health and nutrition research and policy has focused on the period from preconception to age 5 years. Comparable global data on health and nutrition of school-aged children and adolescents are scarce. This analysis pooled data from 2181
population-based studies, with measurements of height and weight in 65 million participants in 200 countries and territories. This the first study to present comparable estimates of height in school-aged children and adolescents for all countries in the world and does so alongside estimates of BMI, which together are pathways from nutrition and environment during childhood and adolescence to lifelong health. The results showed age trajectories and time trends in mean height and BMI of school-aged children and adolescents were highly variable across countries and indicated heterogeneous nutritional quality and life-long health advantages and risks. Global and national nutrition and health programs should extend to children and adolescents in school years to consolidate gains in children younger than 5 years and enable healthy growth through the entire developmental period.

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**Plant Proteins: Assessing Their Nutritional Quality & Effects on Health & Physical Function**

**Publication:** Nutrients  
**Publish Date:** 2020, November 30  
**Authors:** Steven R. Hertzler, Jacqueline C. Lieblein-Boff, Mary Weiler and Courtney Allgeier

Consumer demand for plant protein-based products is high and expected to grow considerably in the next decade. Factors contributing to the rise in popularity of plant proteins include: (1) potential health benefits associated with increased intake of plant-based diets; (2) consumer concerns regarding adverse health effects of consuming diets high in animal protein (e.g., increased saturated fat); (3) increased consumer recognition of the need to improve the environmental sustainability of food production; (4) ethical issues regarding the treatment of animals; and (5) general consumer view of protein as a “positive” nutrient (more is better). While there are health and physical function benefits of diets higher in plant-based protein, the nutritional quality of plant proteins may be inferior in some respects relative to animal proteins. This review highlights the nutritional quality of plant proteins and strategies for wisely using them to meet amino acid requirements. In addition, a summary of studies evaluating the potential benefits of plant proteins for both health and physical function is provided. Finally, potential safety issues associated with increased intake of plant proteins are addressed.
Vitamin D Status is Associated with Muscular Strength in a Nationally Representative Sample of US Youth

**Publication:** Acta Paediatr Actions  
**Publish Date:** 2020, December  
**Authors:** Laurson KR, Thomas JN, Barnes JL

Vitamin D is a recognized component of bone health, but it may also play a significant role in muscle fitness. The aim of this study was to evaluate the association between serum 25-hydroxyvitamin D (25OHD) and muscular strength in a nationally representative sample of US youth. Participants (n = 3350) were 6- to 18-y-olds from 2011 to 2014 National Health and Nutrition Examination Survey. Relative handgrip strength was quantified using age- and sex-specific z-scores. This study found a consistent dose-response relationship between vitamin D and muscle strength, even at circulating levels often considered sufficient. Youth with ≥75 nmol/L of circulating vitamin D had a lower prevalence of poor muscular strength than those with in the 50-74.9 nmol/L or <50 nmol/L groups. These findings highlight the value of vitamin D for the muscle-bone unit and potential extra skeletal ramifications.