

Abstract Title

Practice-based evidence in nutrition (PEN) knowledge pathway Should a plant-based dietary approach be recommended for overweight, hypertensive children?: A review and update of the literature

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Abstract

Introduction: The prevalence of obesity and hypertension in children and adolescents has increased significantly within the past few decades. Multiple studies have reported a healthier body mass index (BMI) and blood pressure in children/adolescents who adhere to plant-based diets compared to those that consume animal-rich diets. Further research needs to be conducted to explore the association between these variables in children

Objectives: (a) to provide Registered Dietitians (RD) with evidence-based therapeutic guidelines for treatment; And, (b) to update the literature on effective dietary treatments for overweight and hypertensive children/adolescents.

Methods: PEN for Healthy Weight/Obesity Pediatric was first consulted. Then, a full search of the literature was completed using PEN, Summons, PubMed and Scopus databases with keywords: *plant-based diet, vegan, obes**, *overweight, hypertension, blood pressure, children, and adolescents*. One hundred and ninety original research articles were considered. Inclusion criteria: English publications within the last 10 years (2009-2019); children and adolescents between 9-21 years of age; specific reference to plant-based diets; and the presence of overweight and/or hypertension. Exclusion criteria: presence of secondary overweight/obesity and hypertension. Seven full-text articles were obtained and included in the review.

Results: The literature supports an inverse relationship between the effects of a plant-based diet on overweight/obesity and hypertension in the pediatric population. Findings demonstrate lower indices of overweight/obesity and hypertension in children/adolescents who have a greater adherence to plant-based diets.

Conclusion: Research supporting the use of a plant-based diet as a therapeutic strategy for overweight/obesity and hypertension in children/adolescents remains limited. There is convincing evidence for weight management and hypertension reductions with the inclusion of whole grains, legumes, vegetables, fruits, nuts and seeds as found in a plant-based dietary pattern.

Significance to Dietetics: An RD-supervised plant-based diet nutrition care plan may prove to be an effective therapeutic approach for overweight, hypertensive children and adolescents.