

Diet quality and academic performance.

[Florence MD](#), [Asbridge M](#), [Veugelers PJ](#).

Department of Community Health and Epidemiology, Faculty of Medicine, Dalhousie University, 5790 University Ave, Halifax, Nova Scotia, Canada B3H 1V7.

Background: Although the effects of nutrition on health and school performance are often cited, few research studies have examined the effect of diet quality on the academic performance of children. This study examines the association between overall diet quality and academic performance. Methods: In 2003, 5200 grade 5 students in Nova Scotia, Canada, and their parents were surveyed as part of the Children's Lifestyle and School-performance Study. Information on dietary intake, height, and weight and sociodemographic variables were linked to results of a provincial standardized literacy assessment. Diet Quality Index-International was used to summarize overall diet quality. Multilevel regression methods were used to examine the association between indicators of diet quality and academic performance while adjusting for gender and socioeconomic characteristics of parents and residential neighborhoods. Results: Across various indicators of diet quality, an association with academic performance was observed. Students with decreased overall diet quality were significantly more likely to perform poorly on the assessment. Girls performed better than boys as did children from socioeconomically advantaged families. Children attending better schools and living in wealthy neighborhoods also performed better. Conclusions: These findings demonstrate an association between diet quality and academic performance and identify specific dietary factors that contribute to this association. Additionally, this research supports the broader implementation and investment in effective school nutrition programs that have the potential to improve student access to healthy food choices, diet quality, academic performance, and, over the long term, health.