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Poor overall diet quality as a possible contributor to calculus formation.

Al-Zahrani MS, Borawski EA, Bissada NF.

Department of Periodontics, Faculty of Dentistry, King Abdulaziz University, Jeddah, Saudi Arabia .mxa67@cwru.edu

PURPOSE :An association between diet and calculus deposits was suggested by animal studies .The objective of the present analysis was to examine whether or not there is an association between overall diet quality, as measured by the healthy eating index, and extent of dental calculus deposits using a subset of the third National Health and Nutrition Examination Survey)NHANES III (data.
MATERIALS AND METHODS :NHANES III participants 18-years of age or older who had data on dental calculus and diet quality were selected)n =12405 .(The healthy eating index)HEI(, used as an indicator of overall diet quality, has a minimum score of zero)poorest (and a maximum score of 100)best (and was divided into three categories, poor)HEI < 51(, fair)HEI, between 51 -80 (and good)HEI > 80 .(Ordinal logistic regression models were used to examine the association between the HEI and the percentage of sites with calculus deposits .**RESULTS**: Overall diet quality was found to be significantly associated with calculus deposits controlling for :age, gender, race, education, poverty income ratio, smoking, diabetes, history of vitamin and mineral use, body mass index, time elapsed since last dental visit and gingival bleeding .The adjusted odds ratios for having a greater percentage of sites with calculus were 1.54)1.19 -1.98(, 1.30)1.02 -1.60 (and 1.00)reference (for subjects with poor, fair, and good diet quality respectively .**CONCLUSION** :Poor diet quality is significantly associated with more calculus deposits .Further studies are needed to examine if poor diet quality is a predisposing factor for calculus formation and/or a risk factor for periodontal diseases.

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