

Brazilian Oral Research

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Abstract

[GAVIAO, Maria Beatriz Duarte](#); [RAYMUNDO, Vaneska Graciele](#) and [RENTES, Alessandra Matias](#). Masticatory performance and bite force in children with primary dentition. *Braz. oral res.* [online]. 2007, vol.21, n.2, pp. 146-152. ISSN 1806-8324. doi: 10.1590/S1806-83242007000200009.

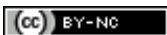
The aim of this study was to evaluate the relationship between masticatory performance and maximum bite force in the primary dentition. The sample comprised 15 children of both genders, aged 3 to 5.5 years, with good systemic and oral health, presence of all primary teeth without large caries, no structural anomalies, without severe malocclusion, and no history of orthodontic treatment. They chewed one standardized silicone tablet for 20 strokes and the median areas of the chewed particles were measured by an optical digital system. Enhanced performance was measured by a decrease in the chewed particle areas and an increase in the amount of chewed particles. The bite force was determined using a transmitter pressurized tube connected to an analog/digital electronic circuit. Weight, height and body mass index (kg/m^2) were determined. The data were analyzed by descriptive statistics and Pearson or Spearman's correlations, after assessment of the normality of the distribution by Shapiro-Wilks' *W*-test. There was no correlation between bite force and particle area and amount ($p > 0.05$), neither were the body variables correlated with the masticatory variables ($p > 0.05$). It was concluded that the bite force was not a primary determinant of masticatory performance, and both variables were not dependent on body variables in the studied sample.

Keywords : Mastication; Bite force; Dentition, deciduous.

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