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Original Articles

Growth-Related Differences in Maximum Laterotrusion and Retrusion between Children and Adults

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Abstract

Objective: To test the null hypothesis that there are no differences between children and adults in maximum laterotrusion and maximum retrusion on the right and left sides.

Materials and Methods: This population-based study included 81 randomly selected children between the ages of 6 and 10 years and 67 adults. Kinematic variables were measured with the ultrasonic JMA-System for registration.

Results: The mean maximum laterotrusion of the children's group (10.6 ± 1.5 mm on the left, 11.0 ± 1.7 mm on the right) was significantly smaller than that of the adult group (11.7 ± 2.0 mm on the left, 12.2 ± 1.7 mm on the right). The maximum laterotrusion of the children's group corresponded to about 90% on the left and right sides of that of the adult group. The mean maximum retrusion of the children's group was significantly bigger than that of the adult group. There, the adult values corresponded to 66.7% on the left and 50% on the right side of the children's values. No significant difference in maximum laterotrusion and retrusion was noted on the right and left sides, and no significant differences according to gender specificities were observed in either group.

Conclusions: The hypothesis is rejected. In development of the temporomandibular joint, maximum laterotrusion on the right and left sides increases significantly with age, and maximum retrusion decreases significantly with age.

Keywords: [Laterotrusion](#), [Retrusion](#), [Temporomandibular joint](#), [JMA-System](#), [Growth-related differences](#)

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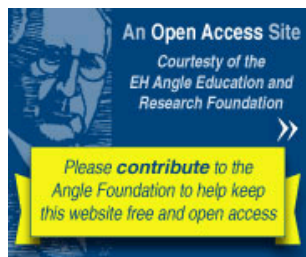
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