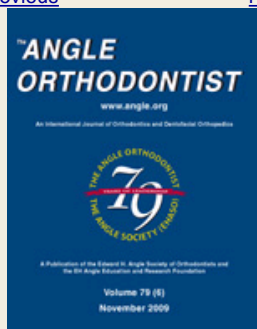


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Review Articles

Posterior Crossbite and Functional Changes A Systematic Review

Anniceleda Silva Andrade^a, Gustavo Hauber Gameiro^b, Moara DeRossi^a, and Maria Beatriz Duarte Gavião^c

Abstract

Objective: To assess, by systematically reviewing the literature, the functional changes of the masticatory muscles associated with posterior crossbite in the primary and mixed dentition.

Materials and Methods: A literature survey from the Medline database covering the period from January 1965 to February 2008 was performed. Randomized controlled trials, controlled clinical trials, and clinical trials that evaluated bite force, surface electromyography, and signs and symptoms of temporomandibular disorders (TMD) were included. Two reviewers extracted the data independently and assessed the quality of the studies.

Results: The search strategy resulted in 494 articles, of which 8 met the inclusion criteria. Children with posterior crossbite can have reduced bite force and asymmetrical muscle function during chewing or clenching, in which the anterior temporalis is more active and the masseter less active on the crossbite side than the noncrossbite side. Moreover, there is a significant association between posterior crossbite and TMD symptomatology.

Conclusion: The consequences of the functional changes for the growth and development of the stomatognathic system deserves further investigation.

Keywords: [Crossbite](#), [Bite force](#), [Surface EMG](#), [TMD](#), [Masticatory muscles](#), [Systematic review](#)

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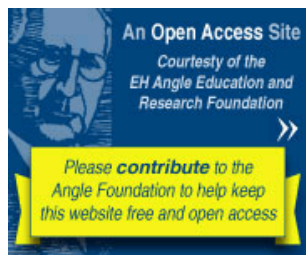
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