

Tooth-position, arch-size, and arch-shape in the primary dentition.

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Abstract

Tooth positions and dental arch forms are related to the growth of the cranio-facial complex. To determine the positions of primary teeth and size and shape of the primary dental arches, sixty dental casts of young children (thirty boys and thirty girls) with normal occlusions were examined. In all casts the coordinates of cusp tips of primary canines and molars, and mesial and distal line angles of primary canines and incisors were digitized. The computer-generated curves were made for the maxillary and mandibular arches using a polynomial model. The results show that there were three major cusp-to-fossa and one cusp-to-marginal ridge relations in primary molar intercuspation. On average, girl's dental arches were smaller than boy's dental arches. The mean curves of mandibular arches in anterior segments were gentler than those of maxillary arches.