

After completing this course, the participant will have:

1. An awareness of the effect of the time for fixed retainer wear in maxillary and mandibular dental alignment stability.
2. An appreciation for the association between maxillary canine impaction and the maxillary transverse dimension.
3. An understanding of the effects of tooth-borne and tissue-tooth-borne banded expanders on the alveolar bone plate and root length of the maxillary first molar.
4. Knowledge concerning the influence of probiotic consumption and the use of probiotic toothpaste on the levels of *Streptococcus mutans* and *Lactobacillus* in the saliva of orthodontic patients.

Article 1: Occlusal changes during a 10-year posttreatment period and the effect of fixed retention on anterior tooth alignment, by Ragnar Bjering et al

1. The objectives of this study were to evaluate changes in occlusal components in 3 subperiods during a 10-year posttreatment time and to examine the long-term effects of removable appliance retention on maxillary and mandibular alignment.

TRUE

FALSE

2. The final study sample included 125 patients treated with full orthodontic appliances.

TRUE

FALSE

3. The authors reported that, in patients wearing a removable maxillary retainer for 3 years, the additional benefit of wearing the fixed retainer for 10 years was minor regarding stability of maxillary alignment.

TRUE

FALSE

4. The authors concluded that, in the mandible, fixed retention for 10 years gave moderately better alignment compared with fixed retention for 3 to 5 years.

TRUE

FALSE

Article 2: Maxillary transverse dimensions in subjects with and without impacted canines: A comparative cone-beam computed tomography study, by Nicolas Arboleda-Ariza et al

5. The objective of this study was to compare the maxillary transverse dimensions between subjects with impacted maxillary canines and subjects without canine impactions with similar vertical and sagittal features.

TRUE

FALSE

6. Cone-beam computed tomography scans were used to measure maxillary transverse dimensions at 3 levels: first molar basal width, first premolar basal width, and first premolar alveolar width.

TRUE

FALSE

7. The authors reported no significant differences between the 2 groups with impacted canines for any transverse measurements.

TRUE

FALSE

8. The authors concluded that subjects with unilateral or bilateral impacted maxillary canines have smaller maxillary transverse dimensions than do subjects without impactions.

TRUE

FALSE

Article 3: Cone-beam computed tomography evaluation of bone plate and root length after maxillary expansion using tooth-borne and tooth-tissue-borne banded expanders, by Mariana Roennau Lemos Rinaldi et al

9. The objective of this research was to evaluate the buccal bone plate and root length of maxillary permanent first molars using cone-beam computed tomography after rapid maxillary expansion (RME) with different activation protocols.

TRUE

FALSE

10. The sample was divided into 4 groups according to the daily screw activation protocol and expander appliance used: Haas type 2/4 turns, Haas-type 4/4 turns, hyrax-type 2/4 turns, and hyrax-type with alternate RME and constriction activation protocol with 4/4 turns a day.

TRUE

FALSE

11. The authors reported that the hyrax/alt-RAMEC and hyrax groups had no dehiscences, fenestrations, and exposure of the root at the buccal aspect.

TRUE

FALSE

12. The authors concluded that in general the consequence of RME using the hyrax appliance was root resorption, whereas the Haas appliance caused bone resorption.

TRUE

FALSE

Article 4: Effects of probiotics on salivary *Streptococcus mutans* and *Lactobacillus* levels in orthodontic patients, by Sevtap Alp et al

13. The aims of this study were to determine the effect of regular probiotic consumption on microbial colonization in saliva in orthodontic patients and to comparatively evaluate the differences between the systemic consumption of probiotic products and the local application.

TRUE

FALSE

14. The study sample was divided into 3 groups of orthodontic patients (15 each): control group with no probiotics, probiotic (kefir) consumption group, and probiotic consumption plus probiotic toothpaste group.

TRUE

FALSE

15. The authors reported that the use of probiotic products in orthodontic patients reduces the salivary content of *S mutans* and *Lactobacillus* levels.

TRUE

FALSE

16. The ultimate conclusion by the authors was that daily consumption of probiotics and the use of probiotic toothpaste did not affect the salivary microbial colonizations in the orthodontic patients in this study.

TRUE

FALSE