

After completing this course, the participant will have:

1. An understanding of the clinical differences between the placement of appliances by either the direct or indirect technique.
2. Knowledge concerning the possibility for some form of sleep disordered breathing in adolescents seeking orthodontic care.
3. An awareness of the accuracy of different types of tooth movements that result from the use of clear aligners.
4. An appreciation for the significance of the association between body mass index and early dental development and eruption.

**Article 1: Comparative assessment of treatment efficacy and adverse effects during nonextraction orthodontic treatment of Class I malocclusion patients with direct and indirect bonding: A parallel randomized clinical trial, by Kübra Yildirim et al**

1. The objective of this 2-arm parallel trial was to compare the effects of direct and indirect bonding techniques on the orthodontic treatment process and outcomes.

True

False

2. The specific secondary outcome measures in this study were times taken to perform the laboratory and clinical steps, total treatment duration, plaque accumulation, periodontal pocket depths, formation of white spot lesions, and bond failures.

True

False

3. The authors reported that the results did not show significant differences between the indirect and direct bonding techniques in terms of plaque accumulation, formation of white spot lesions, bond failures, or need for additional archwire bending and bracket repositioning.

True

False

4. The authors concluded that the quality of the results was better in patients who had bonding with the indirect techniques.

True

False

**Article 2: Sleep disordered breathing in children seeking orthodontic care, by Ashok K. Rohra Jr et al**

5. The objective of this study was to evaluate the prevalence of high-risk factors for sleep disordered breathing (SDB) in a sample of children.

True

False

6. Part of the inclusion criteria for the study's sample consisted of previous orthodontic treatment and completion of the Pediatric Sleep Questionnaire.

True

False

7. The authors reported that 33 (10.9%) of the participants in the study were identified as having a high risk for SDB.

True

False

8. The authors concluded that the study suggests that approximately 7% to 10% of adolescent orthodontic patients may be at significant risk for some form of sleep disordered breathing.

True

False

**Article 3: Accuracy of clear aligners: A retrospective study of patients who needed refinement, by Orfeas Charalampakis et al**

9. The purpose of this study was to determine the accuracy of specific tooth movements with Invisalign compared with treatment with fixed appliances.

True

False

10. The study group comprised 20 adults with an average age of 37 years 6 months.

True

False

11. The authors reported that significant differences were seen between the predicted and achieved tooth positions for horizontal movements of the teeth.

True

False

12. The authors concluded that rotation of canines and intrusion of incisors were the most accurate movements identified in the study.

True

False

**Article 4: Childhood body mass index is associated with early dental development and eruption in a longitudinal sample from the Iowa Facial Growth Study, by Christina L. Nicholas et al**

13. The aim of this study was to longitudinally evaluate the relationship between dental maturation, height, and body mass index (BMI).

True

False

14. The study's sample of 77 children was obtained from both the Iowa and Burlington Growth Studies.

True

False

15. The authors reported that a high BMI at a young age predicts advanced dental development at later times, suggesting a long-term effect of BMI on dental maturation.

True

False

16. Based on the authors' findings, they recommended that orthodontic treatment may occasionally need to occur at earlier chronologic ages in overweight and obese children than in their normal-weight counterparts.

True

False