

# CONTINUING EDUCATION

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## Learning Objectives

After completion of this exercise, the participant will be able to:

1. Discuss the clinical philosophies of Dr. Bjorn Zachrisson.
2. Fabricate a simple lingual spring system for anterior torque correction.
3. Review the properties of orthodontic pliers as they apply to different sterilization techniques.
4. Describe a technique for correction of scissor bite using upper and lower miniscrews.

## Article 1

Zachrisson, B.U. and Sinclair, P.M.: *Master Clinician Bjorn U. Zachrisson, DDS, MSD, PHD* (pp. 531-557)

1. Dr. Zachrisson's keys to archform stability include all of the following except:
  - a) maintaining a "normal" mandibular inter-canine width (24-26mm)
  - b) avoiding proclination of the mandibular incisors if they are behind the A-Pog plane at the start of treatment
  - c) respecting the pretreatment mandibular archform
  - d) uprighting the mandibular teeth transversely
2. To achieve the most attractive tooth display during smiling, Dr. Zachrisson recommends:
  - a) expanding the upper arch
  - b) uprighting premolars and molars by placing untorqued brackets
  - c) placing 3rd-order bends to add buccal crown torque as needed
  - d) both b and c

3. The best indication for extraction of a single lower incisor is a mild Class III adult patient with:
  - a) a deep bite
  - b) an open-bite tendency
  - c) triangular mandibular incisors
  - d) small mandibular incisors
4. Unpredictable long-term side effects of osseo-integrated implants in the anterior maxilla of a young adult include:
  - a) infraocclusion of implant-supported crowns due to continued eruption of adjacent teeth
  - b) resorption of labial bone and darkening of the overlying gingiva
  - c) root exposure due to gingival retraction
  - d) all of the above

## Article 2

Musilli, M.; Acanfora, M.; Gherlone, E.; and Lucchese, A.: *Anterior Torque Correction with Bracketless Fixed Orthodontics* (pp. 558-562)

5. Components of the authors' bracketless torquing system include:
  - a) horizontally bonded minitubes on the lingual surfaces of the anterior teeth
  - b) a passive bonded lingual retainer
  - c) a bonded lingual retainer with an occlusal loop placed at the affected tooth
  - d) an overlaid U-shaped spring fabricated from round wire
6. A passive anchorage unit:
  - a) must be applied unless the adjacent tooth requires an inverse correction
  - b) must be applied in all cases to avoid unwanted reciprocal movements

- c) shifts the center of rotation occlusally
  - d) both b and c
7. Benefits of the authors' technique include:
- a) esthetic appearance
  - b) no need for special patient compliance
  - c) reduced risk of white-spot lesions
  - d) all of the above
8. The authors suggest that incisor root repositioning in a periodontally compromised patient:
- a) should not be attempted before periodontal surgery if the patient has a Miller Class III gingival recession
  - b) should not be attempted before periodontal surgery if the patient has a Miller Class II gingival recession
  - c) should not be attempted unless the patient agrees to follow-up periodontal surgical treatment
  - d) may improve the prognosis of subsequent mucogingival surgery

### Article 3

Sildve, P.O.: *Sterilization and Instrument Compatibility in a Digital World* (pp. 563-569)

9. Compared to tungsten carbide instrument inserts, tool steel inserts have:
- a) superior corrosion resistance
  - b) inferior corrosion resistance, but superior shock resistance
  - c) inferior grindability and shock resistance
  - d) inferior grindability, but superior hardness
10. Tungsten carbide is an alloy made up of tungsten, carbon, and:
- a) iron
  - b) nickel
  - c) cobalt
  - d) chromium
11. Practices using steam sterilization can prolong the life of autoclavable instruments:
- a) by using an enzymatic cleaner with a rust inhibitor
  - b) by applying a petroleum-based instrument milk dip
  - c) by applying a paraffin-based instrument milk dip

- d) both a and c
12. A practice that prefers tool-steel-inserted pliers must use:
- a) dry-heat sterilization
  - b) a no-rinse cleaning solution with a rust inhibitor
  - c) a petroleum-free silicon hinge lubricant
  - d) all of the above

### Article 4

Kalia, A. and Sharif, K.: *Scissor-Bite Correction Using Miniscrew Anchorage* (pp. 573-579)

13. A scissor bite is observed most frequently between:
- a) the second premolars
  - b) the maxillary first molar and mandibular second premolar
  - c) the first molars
  - d) the second molars
14. Disadvantages of other methods that can be avoided by using miniscrew anchorage in scissor-bite patients include:
- a) extrusive forces on the affected teeth
  - b) increased overbite
  - c) counterclockwise rotation of the mandible
  - d) all of the above
15. The authors inserted a palatal miniscrew between the upper second premolar and first molar instead of between the first and second molars:
- a) to place a slight buccal force on the upper first molar by means of elastomeric chain
  - b) to prevent the patient from biting through the elastomeric chain
  - c) so that the miniscrew could later be used for retraction of the anterior teeth
  - d) because of poor bone quality in the more posterior location
16. Disadvantages of miniscrew placement in the posterior palate reported by previous studies include:
- a) risk of sinus perforation
  - b) proximity to the greater palatine nerve
  - c) lack of thick cortical bone
  - d) both a and b