

# CONTINUING EDUCATION

---

*The University of Southern California School of Dentistry Orthodontic Alumni Association will award 3 hours of Continuing Education credit for reading this issue of JCO and answering at least 12 of the following 16 questions correctly. Take this test online at [www.jco-online.com](http://www.jco-online.com) (click on Continuing Education); payment of \$25 is required by VISA or MasterCard. The test may be retaken once if not passed on the first attempt. Correct answers will be supplied immediately, along with a printable certificate. Tests will be accessible on the JCO website for 12 months after publication. A subscription to JCO is not required to earn C.E. credits. For information, contact Dr. Robert Keim, (213) 740-0410; e-mail: [editor@jco-online.com](mailto:editor@jco-online.com). CER No. 08-2006-15010.*

---

## Learning Objectives

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

1. Discuss trends in orthodontic economics and practice administration since 1981.
2. Compare digital volume wrapping with other methods of obtaining facial measurements.
3. Fabricate a custom appliance for buccal and palatal intrusion of a supraerupted second molar.
4. Describe a skeletal-anchorage technique used to provide space for normal eruption of the lower first and second molars in patients with molar impactions.

## Article 1

Keim, R.G.; Gottlieb, E.L.; Vogels, D.S. III; and Vogels, P.B.: *2015 JCO Orthodontic Practice Study* (pp. 625-639)

1. Since the 2013 Study, median new-patient consultations increased by:
  - a) 1%
  - b) 8%
  - c) 16%
  - d) 20%
2. The highest-ever percentage of respondents said they adjusted their fees:
  - a) every six months
  - b) every 12 months
  - c) every 24 months
  - d) on an irregular basis
3. All of the following management methods were used by the highest-ever percentages of respondents except:
  - a) written practice objectives

- b) office procedure manual
  - c) individual performance appraisals
  - d) monthly contracts-written reports
4. The practice-building method rated most effective by users was:
    - a) open a satellite office
    - b) follow-up calls after difficult appointments
    - c) no-charge initial visit
    - d) discount for up-front payment

## Article 2

Premjani, P.; Al-Mulla, A.H.; and Ferguson, D.J.: *Accuracy of 3D Facial Models Obtained from CBCT Volume Wrapping* (pp. 641-646)

5. This study compared facial measurements obtained by wrapping a two-dimensional facial image over a cone-beam computed tomography (CBCT) volume with those taken by:
  - a) stereophotogrammetry
  - b) digital stereoscopy
  - c) direct anthropometry
  - d) frontal cephalometry
6. Volume wrapping is commonly used to:
  - a) obtain facial measurements
  - b) simulate oral surgeries
  - c) predict orthodontic tooth movements
  - d) produce series of clear aligners
7. No statistically significant differences were found between any of the facial measurements taken by the two methods, except for:
  - a) columellar length
  - b) intercanthal distance
  - c) nasal tip protusion
  - d) philtral length

8. The authors believed this vertical deficiency in the three-dimensional facial model occurred because:

- a) it is rarely measured by orthodontists
- b) it is difficult to capture on two-dimensional facial photographs
- c) it is difficult to measure when simulating facial or skeletal movements
- d) all of the above

**Article 3**

Pattabiraman, V.; Sood, R.; Sabrish, S.; and Rizvi, O.: *Intrusion of Supraerupted Second Molars with the Palatal Intrusion Fork* (pp. 647-650)

9. Loss of a tooth in either arch will result in:
- a) tipping of the adjacent teeth toward the extraction space
  - b) narrowing of the alveolar ridge due to resorption
  - c) supraeruption of the antagonist tooth
  - d) all of the above
10. Anchorage for intrusion of a supraerupted upper second molar is especially difficult to obtain for all of the following reasons except the:
- a) necessity of applying forces on both the buccal and palatal sides
  - b) proximity of the maxillary sinus floor
  - c) presence of opposing third molars
  - d) limited availability of sites for the insertion of miniscrews
11. As described in this case, the authors' palatal intrusion fork (PIF) is anchored by a miniscrew inserted in the:
- a) buccal interradicular area between the upper first and second molars
  - b) palatal alveolus between the upper second premolar and first molar
  - c) palatal alveolus between the upper first and second molars
  - d) maxillary tuberosity
12. A small occlusal composite button may be added to the PIF to:
- a) stabilize the elastomeric chain
  - b) keep the PIF from dislodging

- c) vary the point of force application
- d) both a and c

**Article 4**

Sverzut, C.E.; Trivellato, A.E.; Sverzut, A.T.; Araújo, R.T.E.; and Jacob, E.S.: *Distal Movement of Lower Molars with Miniplate Anchorage* (pp. 654-658)

13. Other than third molars, the permanent teeth most likely to become impacted are the:
- a) upper second molars
  - b) lower first molars
  - c) upper canines
  - d) lower premolars
14. Disadvantages of mini-implants compared to miniplates as anchorage for lower-molar distalization include all of the following except the:
- a) reduced load that can be supported
  - b) possibility of breakage due to shorter screws
  - c) tendency of the implant to migrate toward the tooth being moved
  - d) proximity of the inferior alveolar nerve
15. Because the Sverzut plates are not counter-sunk, they:
- a) can be used on either side of the upper and lower jaws
  - b) are easy to remove from surrounding bone
  - c) allow more options for implant placement
  - d) all of the above
16. In cases such as the one shown here, cone-beam computed tomography is recommended to assess the chances of successful lower-molar distalization whenever cephalometric radiographs indicate:
- a) a likelihood that the plate will be close to the inferior alveolar nerve
  - b) moderate-to-severe root dilaceration of the impacted molar
  - c) a need for more than 6mm of anteroposterior space to reposition the first and second molars
  - d) less than 3.9mm of available space between the lower second molar and the anterior border of the ramus