

CONTINUING EDUCATION

The East Carolina School of Dental Medicine 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 (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. Neal Kravitz; e-mail: editor@jco-online.com. CER Code: JCO November 2023.

Learning Objectives

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

1. Outline a procedure for direct three-dimensional printing of occlusal splints.
2. Discuss factors that seem related to orthodontic practice success.
3. Describe the key factors involved in 3D analysis and planning for combined surgical-orthodontic treatment.
4. Compare an anterior repositioning appliance with other methods of resolving TMD.

Article 1

Groth, C. and Kravitz, N.D.: *Direct 3D-Printed Occlusal Splints* (pp. 640-643)

1. In the authors' protocol, the intraoral scan should capture the maxillary and mandibular arches, as well as the:
 - a) bite registration in a forward position
 - b) bite registration in maximum intercuspation
 - c) equilibrated bite
 - d) digitally designed tooth contacts
2. In the 3D printer, too many supports can:
 - a) increase material costs
 - b) add postprocessing work
 - c) damage the model's surface
 - d) all of the above
3. Most commercial laboratories recommend an occlusal splint thickness of:
 - a) .5mm
 - b) 1mm
 - c) 2mm
 - d) 4mm

4. At the delivery appointment, the orthodontist should verify that the:

- a) tooth contacts are evenly distributed
- b) equilibration has been performed
- c) anterior supports have been removed
- d) bite registration is correct

Article 2

Kravitz, N.D.; Vogels, D.S. III; and Vogels, P.B.: *2023 JCO Orthodontic Practice Study* (pp. 645-660)

5. Compared with low net income practices, the high net income practices reported:
 - a) about the same gross income
 - b) about twice the gross income
 - c) more than four times the gross income
 - d) about five times the gross income
6. Among the management methods surveyed, significantly higher numbers of mean case starts were reported by users of staff meetings and:
 - a) measurement of staff productivity
 - b) in-depth analysis of practice activity
 - c) treatment flow control system
 - d) measurement of case acceptance
7. There were significant differences among the three net income levels in usage of surgical orthodontics and:
 - a) changing practice location
 - b) opening a satellite office
 - c) lingual orthodontics
 - d) managed care
8. Practices with the greatest number of new-patient consultations were significantly more likely than others to use all of the following except:

- a) surgical orthodontics
- b) opening a satellite office
- c) TikTok
- d) no-charge diagnostic records

Article 3

Parsaei, Y. and Steinbacher, D.: *Esthetic Optimization of Surgical-Orthodontic Treatment* (pp. 661-682)

9. In 3D surgical planning, the intraoral scans are moved into the ideal postsurgical occlusion and:
- a) used to produce setup models
 - b) digitally “fused” to the CT scan
 - c) used to produce surgical splints by means of 3D photogrammetry
 - d) all of the above
10. A Class II patient with a convex profile and steep mandibular-plane angle generally requires:
- a) mandibular advancement with counterclockwise rotation
 - b) maxillary advancement with clockwise rotation
 - c) Le Fort I osteotomy with total or differential impaction
 - d) surgically assisted rapid maxillary expansion
11. In a patient with facial asymmetry, an early high condylectomy can:
- a) arrest hyperplastic growth
 - b) lengthen overall treatment time
 - c) achieve better results than orthognathic surgery alone
 - d) both a and c
12. Esthetic adjunctive procedures for soft-tissue augmentation may include any of the following except:
- a) fat grafting

- b) hyaluronic-acid fillers
- c) botulinum-toxin injections
- d) dermal grafts

Article 4

Greene, T. and Roberson, G.: *Anterior Repositioning Appliance for Relief of TMD in Conjunction with Definitive Orthodontic Treatment* (pp. 683-692)

13. Trauma to the TMJ can predispose patients to:
- a) development of disc displacement
 - b) stretching of ligaments that support the TMJ
 - c) formation of irregularities within the condyle, fossa, or disc
 - d) all of the above
14. An anterior repositioning appliance has been recommended in TMD treatment to:
- a) promote condylar remodeling
 - b) encourage normal mandibular growth
 - c) prevent development of a Class II skeletal relationship
 - d) all of the above
15. Magnetic resonance imaging can be used to provide a differential diagnosis and to:
- a) design an anterior repositioning appliance
 - b) confirm disc recapture after the use of an appliance
 - c) alleviate TMJ pain
 - d) monitor mandibular growth
16. In this case, the authors controlled posterior orthodontic forces by:
- a) using Class III elastics
 - b) using a manual manipulation technique
 - c) progressively equilibrating the anterior repositioning appliance
 - d) discontinuing the appliance