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Career Development Program

V4350
Socket Preservation and Bone Grafting

Gordon J. Christensen, DDS, MSD, PhD

Materials Included

C.E. Instruction Sheet
Products List
Clinician Responsible
Goals & Objectives
Overview
References
AGD Post-Test

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PRACTICAL CLINICAL COURSES

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Gordon J. Christensen

PRACTICAL CLINICAL COURSES

Sources of Products Discussed in

V4350 Socket Preservation and Bone Grafting

Presented by: Gordon J. Christensen, DDS, MSD, PhD

1. **AccuFilm II**
   Parkell, Inc.
   300 Executive Drive
   Edgewood, NY 11717
   (800)243-7446
   (631)249-1134
   www.parkell.com

2. **Amalgam Condenser**
   Various Manufacturers

3. **Big Easy Periotomes**
   Premier Dental Products Co.
   1710 Romano Drive
   Plymouth Meeting, PA 19462
   (888)670-6100
   (610)239-6000
   www.premusa.com

4. **Bio-Oss**
   Osteohealth
   One Luitpold Drive
   P.O. Box 9001
   Shirley, NY 11967
   (800)874-2334
   (631)924-4000
   www.osteohealth.com

5. **Bioplant**
   Kerr Corporation
   1717 West Collins Avenue
   Orange, CA 92867
   (800)537-7123
   (714)516-7400
   www.kerrdental.com

6. **Blu-Mousse**
   Parkell, Inc.
   300 Executive Drive
   Edgewood, NY 11717
   (800)243-7446
   (631)249-1134
   www.parkell.com

7. **CollaPlug**
   Zimmer Dental Inc.
   1900 Ashton Avenue
   Carlsbad, CA 92008
   (800)854-7019
   (760)929-4300
   www.zimmerdental.com

8. **Copper Bands**
   Parkell, Inc.
   300 Executive Drive
   Edgewood, NY 11717
   (800)243-7446
   (631)249-1134
   www.parkell.com

9. **Cotton Pliers**
   Various Manufacturers

10. **Directed Flow Impression Tray**
    3M ESPE Dental Products
    3M Center
    Bldg. 275-2SE-03
    St. Paul, MN 55144
    (800)634-2249
    www.3mespe.com

11. **Disposable Scalpel**
    Various Manufacturers

12. **Elevators**
    Various Manufacturers

13. **Filpins**
    Filhol Dental
    19 West 34th Sreet
    Suite 916
    New York, NY 10001
    (212)714-9250
    www.filhol.com

14. **Foundation**
    J. Morita USA
    9 Mason
    Irvine, CA 92618
    (888)566-7482
    (949)581-9600
    www.jmoritausa.com

15. **GC FujiCEM Automix**
    GC America, Inc.
    3737 West 127th Street
    Alsip, IL 60803
    (800)323-3386
    (708)897-4000
    www.gcamerica.com

16. **Gluma**
    Heraeus
    300 Heraeus Way
    South Bend, IN 46614
    (800)431-1785
    (574)291-0661
    www.heraeus-kulzer-us.com

17. **HemCon Dental Dressing**
    HemCon Medical Technologies
    10575 SW Cascade Avenue
    Suite 130
    Portland, OR 97223
    (877)247-0196
    (503)245-0459
    www.hemcon.com

18. **Hemostat**
    Various Manufacturers

19. **Integra (Miltex) Sutures**
    Pearson Dental
    13161 Telfair Avenue
    Sylmar, CA 91342
    (800)535-4535
    (818)362-2600
    www.pearsondental.com

20. **Luxator**
JS Dental Manufacturing
196 North Salem Road
P.O. Box 904
Ridgefield, CT 06877
(800)284-3368
(203)438-8832
www.jsdental.com

21. **Madame Butterfly Silk**
Almore International, Inc.
P.O. Box 25214
Portland, OR 97298
(800)547-1511
(503)643-6633
www.almore.com

22. **MaxCem Elite**
Kerr Corporation
1717 West Collins Avenue
Orange, CA 92867
(800)537-7123
(714)516-7400
www.kerrdental.com

23. **MicroPrime**
Danville Materials
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Suite A200
San Ramon, CA 94583
(800)827-7940
(925)973-0710
www.danvillematerials.com

24. **MinerOss**
BioHorizons
2300 Riverchase Center
Birmingham, AL 35244
(888)246-8338
(205)967-7880
www.biohorizons.com

25. **Needle Holder**
Various Manufacturers

26. **OraGRAFT**
LifeNet Health, Inc.
1864 Concert Drive
Virginia Beach, VA 23453-1903
(888)847-7831
(757)464-4761
www.accesslifenethealth.org

27. **Periosteal Elevator**
Various Manufacturers

28. **Protemp 3 Garant**
3M ESPE Dental Products
3M Center
Bldg. 275-2SE-03
St. Paul, MN 55144
(800)634-2249
www.3mespe.com

29. **Proximator**
Karl Schumacher Dental
Instruments Company, Inc.
108 Lakeside Drive
Southhampton, PA 18966
(800)523-2427
(215)322-0511
www.karlschumacher.com

30. **Puros**
Zimmer Dental Inc.
1900 Ashton Avenue
Carlsbad, CA 92008
(800)854-7019
(760)929-4300
www.zimmerdental.com

31. **RelyX Luting Plus**
3M ESPE Dental Products
3M Center
Bldg. 275-2SE-03
St. Paul, MN 55144
(800)634-2249
www.3mespe.com

32. **Scissors**
Various Manufacturers

33. **Socket Repair Membrane**
Zimmer Dental Inc.
1900 Ashton Avenue
Carlsbad, CA 92008
(800)854-7019
(760)929-4300
www.zimmerdental.com

34. **TempBond**
Kerr Corporation
1717 West Collins Avenue
Orange, CA 92867
(800)537-7123
(714)516-7400
www.kerrdental.com

35. **Triad System**
Dentsply Prosthetics
570 West College Avenue
York, PA 17405
(800)243-1942
(717)845-7511
www.ceramco.com

36. **Unicem**
3M ESPE Dental Products
3M Center
Bldg. 275-2SE-03
St. Paul, MN 55144
(800)634-2249
www.3mespe.com

37. **Vicryl (Ethicon) Sutures**
Henry Schein, Inc.
135 Duryea Road
Melville, NY 11747
(800)582-2702
(631)843-5500
www.henryschein.com

38. **Wax Spatula**
Various Manufacturers

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PROGRAM

V4350 Socket Preservation and Bone Grafting

CLINICIAN RESPONSIBLE:

Gordon J. Christensen, DDS, MSD, PhD
CEO, Practical Clinical Courses
CEO, CR Foundation
Practicing Prosthodontist, Provo, Utah

GOALS & OBJECTIVES

On completion of this video, viewers should be able to:

1. Discuss and support the need for socket grafting (ridge preservation).
2. List the four types of grafting material categories.
3. Describe an autogenous bone graft.
4. Describe an allograft.
5. Describe an alloplast.
6. Describe a xenograft.
7. Discuss methods to remove a tooth without breaking bone.
8. Describe Luxators.
9. Describe Proximators.
10. Describe a periotome.
11. Discuss selecting the most appropriate grafting material for specific situations.
12. Compare local anesthetic need and type of anesthetic for routine tooth extraction and socket grafting.
13. List the differences in socket grafting when planning to place an implant at a later date or placing a fixed partial denture.
14. Describe the forces and location of instrument placement applied to a Luxator or Proximator to remove a tooth broken off at the level of the bone.
15. Compare the placement of allograft bone chips with allograft putty with chips.
16. Discuss when a barrier membrane is needed in socket grafting.
17. Discuss how long allograft bone materials should be in place before placing an implant, assuming remote placement and not immediate placement of the implant.
18. Discuss how long soft-tissue healing of a pontic area should take place before making a fixed partial denture.
19. List the ADA insurance codes for socket preservation.
20. Discuss the necessity for patient education when presenting socket grafting to a patient.

OVERVIEW

V4350 Socket Preservation and Bone Grafting

Ridge preservation has been promoted for many years, but it has not become a mainstream technique, in spite of its value. There are numerous reasons related to why ridge preservation has not become popular. Among them are: there is an erroneous feeling that the technique is difficult and unpredictable; third-party payers do not pay well for the procedure; the grafting materials are relatively expensive; the waiting time between placement of the graft and being able to go ahead with the other procedures is a limitation, and the technique is not included in many dental school curricula.

Ridge preservation is an excellent, simple procedure that needs to become a commonly accomplished concept in general dental practice!

This presentation shows the clinical technique for grafting an extraction socket and placing a fixed prosthesis from diagnosis, through tooth removal, grafting, healing, preparation for and placement of a fixed prosthesis over the healed, grafted pontic site. It includes the following topics:

1. Need for socket grafting
2. Types of bone grafts and the purpose for grafting
3. Autogenous grafts
4. Allografts
5. Alloplasts
6. Xenografts
7. Extracting teeth without breaking bone
8. Selecting the most appropriate grafting material
9. Anesthetic need for grafting
10. Impressions for provisional restorations
11. Preliminary tooth preparation
12. Atraumatic tooth extraction.
13. Placement of grafting material in a four-wall socket
14. Placement of wound dressing
15. Fabrication of provisional restorations
16. Seating provisional restorations
17. Analgesics necessary
18. Antibiotics necessary
19. The healed soft-tissue site
20. Impression for the provisional restoration for the final tooth preparations
21. Final tooth preparations
22. Final impressions
23. Seating the provisional restoration
24. The final fixed-partial-denture from the laboratory
25. Seating the final restoration
26. The completed healed graft and final restoration
27. Placement of grafts in 3-wall sockets
28. Placement of a socket repair membrane
29. Placement of grafting material in a 3-wall socket
30. Suturing the site
31. Fees for socket grafting

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4. Irinakis T. Rationale for socket preservation after extraction of a single-rooted tooth when planning for future implant placement. *J Can Dent Assoc*. 2006;72(10):917-922.

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6. Sclar AG. Strategies for management of single-tooth extractions sites in aesthetic implant therapy. *J Oral Maxillofac Surg*. 2004;62(9 suppl 2):90-105.

7. Zitzmann NU, Naef R, Schärer P. Resorbable versus nonresorbable membranes in combination with Bio-Oss for guided bone regeneration [published erratum appears in *Int J Oral Maxillofac Implants*. 1998; 13(4):576]. *Int J Oral Maxillofac Implants*. 1997;12(6):844-852.

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9. Froum SJ, Wallace SS, Elian N, et al. Comparison of mineralized cancellous bone allograft (Puros) and anorganic bovine bone matrix (Bio-Oss) for sinus augmentation: histomorphometry at 26 to 32 weeks after grafting. *Int J Periodontics Restorative Dent*. 2006;26(6):543-551.

10. Vance GS, Greenwell H, Miller RL, et al. Comparison of an allograft in an experimental putty carrier and a bovine-derived xenograft used in ridge preservation: a clinical and histologic study in humans. *Int J Oral Maxillofac Implants*. 2004;19(4):491-497.

POST-TEST

V4350 Socket Preservation and Bone Grafting

1. The "gold standard" for grafting is:
   a. autogenous bone.
   b. allograft.
   c. xenograft.
   d. alloplast.

2. Socket grafting is most needed in:
   a. maxillary molar areas.
   b. mandibular anterior areas.
   c. the smile zone.
   d. upper anterior areas.

3. An allograft is:
   a. the patient's own bone.
   b. usually cow (bovine) bone.
   c. cadaver bone.
   d. a synthetic material.

4. Extracting teeth broken off at the bone level without breaking bone is best effected by:
   a. grasping the remaining coronal tooth structure with a forcep.
   b. using a Luxator or Proximator on the facial and lingual root surfaces.
   c. rocking the forcep in a facial-lingual direction.
   d. using a Luxator or Proximator on the mesial and distal root surfaces.

5. Patients having a tooth extracted and bone grafting require:
   a. routine block anesthetic delivery.
   b. oral sedation.
   c. general anesthetic.
   d. minimal anesthetic, as deemed appropriate by the practitioner.

6. A grafted site is usually ready for an implant at:
   a. 2 months.
   b. 3 months.
   c. 4 months.
   d. 6 months.

7. The pontic form placed in a grafted site should be:
   a. concave to simulate the natural ridge anatomy.
   b. convex to fit into a concavity in the soft-tissue pontic area.
   c. flat to allow easy cleaning.
   d. relieved from the soft tissue by one millimeter to reduce gingival irritation.

POST-TEST (CONT'D)

V4350 Socket Preservation and Bone Grafting

8. Antibiotic delivery when grafting a socket:
   a. should always be provided.
   b. should be the decision of the clinician after discussion with the patient.
   c. should not be provided.
   d. is not controversial.

9. Pain medications when grafting:
   a. should be of a moderate level.
   b. should be narcotic.
   c. are needed only to a minimal level.
   d. are not necessary.

10. Impediments for patients relative to grafting are:
   a. this is a difficult time-consuming procedure.
   b. minimal third-party payment coverage.
   c. there is significant pain associated with the procedure.
   d. the technique is not successful a significant portion of the time.

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