

## **PRACTICAL CLINICAL COURSES**

*A Service of the Gordon J. Christensen  
Career Development Program*

**V2388**

### **Simple, Inexpensive Implant Solutions for Edentulous Mandibles**

Gordon J. Christensen, DDS, MSD, PhD

**Materials Included:**

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

**Gordon J. Christensen**  
**PRACTICAL CLINICAL COURSES**

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**PRACTICAL CLINICAL COURSES**  
*Sources of Products Discussed in*  
**V2388 Simple, Inexpensive Implant Solutions  
for Edentulous Mandibles**

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

1. **Aquasil Ultra**  
Dentsply Sirona Inc.  
13320-B Ballantyne Corporate  
Charlotte, NC 28277  
(800)877-0020  
(717)845-7511  
[www.dentsplysirona.com](http://www.dentsplysirona.com)
2. **CHAIRSIDE Attachment  
Processing Material**  
Zest Dental Solutions  
2875 Loker Avenue East  
Carlsbad, CA 92010  
(800)262-2310  
(442)244-4835  
[www.zestdent.com](http://www.zestdent.com)
3. **CHAIRSIDE Block Out Material**  
Zest Dental Solutions  
2875 Loker Avenue East  
Carlsbad, CA 92010  
(800)262-2310  
(442)244-4835  
[www.zestdent.com](http://www.zestdent.com)
4. **CHAIRSIDE Denture Prep and  
Polish Kit**  
Zest Dental Solutions  
2875 Loker Avenue East  
Carlsbad, CA 92010  
(800)262-2310  
(442)244-4835  
[www.zestdent.com](http://www.zestdent.com)
5. **CHAIRSIDE Soft Reline  
Material**  
Zest Dental Solutions  
2875 Loker Avenue East  
Carlsbad, CA 92010  
(800)262-2310  
(442)244-4835  
[www.zestdent.com](http://www.zestdent.com)
6. **Fit Checker**  
GC America Inc.  
3737 West 127<sup>th</sup> Street  
Alsip, IL 60803  
(800)323-7063  
[www.gcamerica.com](http://www.gcamerica.com)
7. **Glidewell Laboratories**  
4141 MacArthur Blvd.  
Newport Beach, CA 92660  
(800)854-7256  
[www.glidewelldental.com](http://www.glidewelldental.com)
8. **3D Imaging Systems**  
Carestream Dental LLC  
3625 Cumberland Blvd  
Suite 700  
Atlanta, GA 30339  
(800)944-6365  
[www.carestreamdental.com](http://www.carestreamdental.com)
9. **Insert Tool (R-TX)**  
Zest Dental Solutions  
2875 Loker Avenue East  
Carlsbad, CA 92010  
(800)262-2310  
(442)244-4835  
[www.zestdent.com](http://www.zestdent.com)
10. **Legacy Implant System**  
Implant Direct Corporation  
3050 E. Hillcrest Drive  
Thousand Oaks, CA 91362  
(888)649-6425  
[www.implantdirect.com](http://www.implantdirect.com)
11. **LOCATOR Overdenture  
Implant (LODI) System**  
Zest Dental Solutions  
2875 Loker Avenue East  
Carlsbad, CA 92010  
(800)262-2310  
(442)244-4835  
[www.zestdent.com](http://www.zestdent.com)
12. **LOCATOR R-Tx**  
Zest Dental Solutions  
2875 Loker Avenue East  
Carlsbad, CA 92010  
(800)262-2310  
(442)244-4835  
[www.zestdent.com](http://www.zestdent.com)
13. **Madame Butterfly Silk**  
Almore International  
441 19<sup>th</sup> Street S.E.  
Hickory, NC 28602  
(800)547-1511  
[www.almore.com](http://www.almore.com)

14. **Megatray Custom Tray Material (Replacement for Triad TruTray)**  
Henry Schein Dental  
135 Duryea Road  
Melville, NY 11747  
(800)372-4346  
(631)843-5500  
[www.henryschein.com](http://www.henryschein.com)
15. **Occlusal Indicator Wax**  
Kerr Corporation  
200 S. Kraemer Blvd.  
Building E2  
Brea, CA 92821  
(800)537-7123  
[www.kerrdental.com](http://www.kerrdental.com)
16. **Permadyne**  
Solventum  
2510 Conway Avenue  
St. Paul, MN 55144  
(855)423-6725  
(612)842-1263  
[www.3m.com](http://www.3m.com)
17. **PermaSoft**  
Henry Schein Dental  
135 Duryea Road  
Melville, NY 11747  
(800)372-4346  
(631)843-5500  
[www.henryschein.com](http://www.henryschein.com)
18. **ProMax 3D**  
Patterson Dental Supply, Inc.  
1031 Mendota Heights Rd  
St Paul, MN 55120  
(800)328-5536  
[www.pattersondental.com](http://www.pattersondental.com)
19. **Snap-Stone**  
Whip Mix  
361 Farmington Avenue  
P.O. Box 17183  
Louisville, KY 40217  
(800)626-5651  
(502)637-1451  
[www.whipmix.com](http://www.whipmix.com)
20. **Triad TruTray (See Megatray Custom Tray Material)**

***Product names, the products themselves, and company names change rapidly. Please contact the companies shown to confirm current information.***

Gordon J. Christensen Practical Clinical Courses, 3707 North Canyon Road, Suite 3D, Provo, UT 84604  
Toll Free (800) 223-6569 or Utah Residents (801) 226-6569

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## PROGRAM

### **V2388 Simple, Inexpensive Implant Solutions for Edentulous Mandibles**

#### CLINICIAN RESPONSIBLE:

**Gordon J. Christensen, DDS, MSD, PhD**

*Founder and CEO, Practical Clinical Courses*

*Senior Consultant & Previous CEO, CR Foundation*

*Practicing Prosthodontist, Provo, Utah*

#### GOALS & OBJECTIVES

At the completion of this video presentation, viewers should be able to:

1. Describe the peculiar challenges encountered with edentulous mandibles.
2. List the restorative/prosthetic alternative treatments for edentulous mandibles.
3. List the advantages of two conventional implants in the canine areas.
4. When is a soft-tissue flap indicated when placing implants?
5. When are conventional-diameter implants indicated over small-diameter implants?
6. Describe the characteristics of vinyl polysiloxane.
7. Describe the characteristics of polyether.
8. Define centric jaw relation.
9. Describe the Locator R-Tx.
10. Describe the Locator clinical pickup technique.
11. Describe the technique where the technician puts the Locator housings into the denture.
12. List the advantages of using four small-diameter implants.
13. List the clinical steps when using two conventional-diameter implants.
14. List the clinical steps when using four small-diameter implants.
15. Compare relining a denture with rebasing a denture.
16. Compare the techniques for use of custom impression tray vs. a stock tray.
17. Discuss the Ivoclar Vivadent injection molding denture technique.
18. List two materials for denture adjustment.
19. Compare the effectiveness of using two implants vs. four implants.
20. Discuss the optimum financial level for patients with minimal financial resources.

## OVERVIEW

### **V2388 Simple, Inexpensive Implant Solutions for Edentulous Mandibles**

Treatment of patients with edentulous mandibles is one of the most frustrating areas of dentistry. The patients are usually satisfied with their maxillary denture, but very disappointed with their mandibular denture. There are a few relatively inexpensive treatment methods to treat edentulous mandibles successfully. This video shows those ways demonstrating both the surgical and the prosthodontic techniques.

The following and other topics are included in the presentation:

- Reasons for the edentulous dilemma
- Treatment alternatives
- Advantages of two conventional-diameter implants for denture retention and stability
- The surgical procedure
- Flap or no flap
- Placing the two conventional-diameter implants (Implant Direct)
- Retrofitting the previous denture
- Prosthodontic procedure for two implants
- Preliminary impression for mandibular denture
- Final impression for mandibular denture
- Centric jaw relation
- Trying in denture wax-up
- Seating, fitting, and adjusting the final denture for two implants
- Placing Locators
- Picking-up Locators
- Final denture base adjustments and occlusion
- Advantages of four narrow-diameter implants for denture stability and retention
- Flap or no flap for the four narrow-diameter implants
- Placing the four narrow-diameter implants without a flap
- Retrofitting the mandibular denture
- Prosthodontic procedure for four narrow-diameter implants
- Rebase or reline
- Final impression for rebase
- Seating, fitting, and adjusting denture and occlusion
- Final occlusion and denture base adjustments

## SUPPLEMENTAL MATERIALS

### **V2388 Simple, Inexpensive Implant Solutions for Edentulous Mandibles**

1. de Groot RJ, Oomens MAEM, Forouzanfar T, Schulten EAJM. Bone augmentation followed by implant surgery in the edentulous mandible: A systematic review. *J Oral Rehabil.* 2018 Apr;45(4):334-43. doi: 10.1111/joor.12605. Epub 2018 Jan 18.
2. Kauffmann P, Rau A, Engelke W, Troeltzsch M, Brockmeyer P, Dagmar LS, Cordesmeyer R. Accuracy of Navigation-Guided Dental Implant Placement with Screw Versus Hand Template Fixation in the Edentulous Mandible. *Int J Oral Maxillofac Implants.* 2018 Mar/Apr;33(2):383-88. doi: 10.11607/jomi.5784.
3. Tischler M, Patch C, Bidra AS. Rehabilitation of edentulous jaws with zirconia complete-arch fixed implant-supported prostheses: An up to 4-year retrospective clinical study. *J Prosthet Dent.* 2018 Mar 17. pii: S0022-3913(18)30036-2. doi: 10.1016/j.prosdent.2017.12.010. [Epub ahead of print]
4. Elsyad MA, Maryod WH, Mostafa AZ. Effect of Implant Position on Clinical and Radiographic Outcomes of Locator-Retained Mandibular Overdentures: A 1-Year Prospective Study. *J Prosthodont.* 2018 Mar 6. doi: 10.1111/jopr.12780. [Epub ahead of print]
5. Spencer KR. Implant based rehabilitation options for the atrophic edentulous jaw. *Aust Dent J.* 2018 Mar;63 Suppl 1:S100-S107. doi: 10.1111/adj.12595.
6. Pisani M, Bedos C, da Silva CHL, Fromentin O, de Albuquerque RF Jr. A Qualitative Study on Patients' Perceptions of Two Types of Attachments for Implant Overdentures. *J Oral Implantol.* 2017 Dec;43(6):476-81. doi: 10.1563/aaaid-joi-D-17-00166. Epub 2017 Nov 1.
7. Zhang L, Lyu C, Shang Z, Niu A, Liang X. Quality of Life of Implant-Supported Overdenture and Conventional Complete Denture in Restoring the Edentulous Mandible: A Systematic Review. *Implant Dent.* 2017 Dec;26(6):945-50. doi: 10.1097/ID.0000000000000668.
8. Zygiannis K, Aartman IH, Parsa A, Tahmaseb A, Wismeijer D. Implant Mandibular Overdentures Retained by Immediately Loaded Implants: A 1-Year Randomized Trial Comparing the Clinical and Radiographic Outcomes Between Mini Dental Implants and Standard-Sized Implants. *Int J Oral Maxillofac Implants.* 2017 Nov/Dec;32(6):1377-88. doi: 10.11607/jomi.5981.

## **SUPPLEMENTAL MATERIALS (CONT'D)**

### **V2388 Simple, Inexpensive Implant Solutions for Edentulous Mandibles**

9. Erkapers M, Segerström S, Ekstrand K, Baer RA, Toljanic JA, Thor A. The influence of immediately loaded implant treatment in the atrophic edentulous maxilla on oral health related quality of life of edentulous patients: 3-year results of a prospective study. *Head Face Med.* 2017 Nov 10;13(1):21. doi: 10.1186/s13005-017-0154-0.
10. Sharma AJ, Nagrath R, Lahori M. A comparative evaluation of chewing efficiency, masticatory bite force, and patient satisfaction between conventional denture and implant-supported mandibular overdenture: An in vivo study. *J Indian Prosthodont Soc.* 2017 Oct-Dec;17(4):361-72. doi: 10.4103/jips.jips\_76\_17.
11. Christensen GJ. Ask Dr. Christensen: Simplifying fixed restorations for edentulous patients with the Zest Locator F-Tx system. *Dental Economics.* 2017 May;107(5):76-78.
12. Christensen GJ. Ask Dr. Christensen: Guided versus freehand dental implant placement. *Dental Economics.* 2016 Oct;106(10):108-12.
13. Christensen GJ. Ask Dr. Christensen: Clinical situations most indicated for implants. *Dental Economics.* 2015 Mar;105(3):92-6.
14. Christensen GJ. Mini Implants: Insight from Dr. Gordon Christensen. *Inclusive Magazine.* 2013 Feb;4(2).



## POST-TEST

### **V2388 Simple, Inexpensive Implant Solutions for Edentulous Mandibles**

1. Narrow-diameter implants are:
  - a. 1.4 to 2.9 mm in diameter.
  - b. 1.8 to 3 mm in diameter.
  - c. 1.8 to 2.9 mm in diameter.
  - d. 1.8 to 3.2 mm in diameter.
  
2. Conventional-diameter implants are:
  - a. 2.9 to 7 mm in diameter.
  - b. 3 to 7 mm in diameter.
  - c. 3.2 to 7 mm in diameter.
  - d. 3.5 to 6 mm in diameter.
  
3. The implant concept discussed with the MOST significant immediate patient perceived improvement over no implants is:
  - a. four conventional-diameter implants and an overdenture.
  - b. two conventional-diameter implants in the anterior area and an overdenture.
  - c. four small-diameter implants in the anterior area and an overdenture.
  - d. one conventional-diameter implant in the anterior area and an overdenture.
  
4. Making a flap when placing two implants in the anterior area is:
  - a. always necessary.
  - b. necessary, if bone characteristics cannot be determined radiographically.
  - c. never necessary.
  - d. none of the above.
  
5. Custom-made light-curing trays for implant-supported overdentures:
  - a. provide optimum opportunity for border molding.
  - b. require a preliminary impression and cast on which to make the tray.
  - c. are personalized for the patient.
  - d. are strongly recommended.
  - e. all of the above.
  
6. Impression material for removable dentures should be:
  - a. hydrophobic.
  - b. hydrophilic.
  - c. high viscosity.
  - d. low viscosity.
  
7. \_\_\_\_\_ can be used to determine pressure spots on the internal of a denture.
  - a. High viscosity VPS
  - b. Fit Checker from GC
  - c. Red boxing wax
  - d. Occlusal Indicator Wax from Kerr

**POST-TEST (CONT'D)**

**V2388 Simple, Inexpensive Implant Solutions for Edentulous Mandibles**

8. \_\_\_\_\_ can be used to determine occlusal contacts on the denture.
- a. High viscosity VPS
  - b. Fit Checker from GC
  - c. Red boxing wax
  - d. Occlusal Indicator Wax from Kerr
9. Four implants, two in the anterior and two in the posterior, provide:
- a. enhanced anterior retention.
  - b. less distal rocking of the denture.
  - c. fewer sore spots in the anterior.
  - d. none of the above.
10. Picking up Locator housings requires:
- a. having the patient bite firmly while the pick-up material sets.
  - b. having the patient bite lightly while the pick-up material sets.
  - c. holding the denture firmly in place while the pick-up material sets.
  - d. having the patient chew lightly while the pick-up material sets.

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