

PRACTICAL CLINICAL COURSES

A Service of the Gordon J. Christensen
Career Development Program

V3554

Class II Composite Resins Can Be Predictable, Non-Sensitive, and Profitable

Gordon J. Christensen, DDS, MSD, PhD

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PRACTICAL CLINICAL COURSES

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**V3554 Class II Composite Resins Can Be Predictable,
Non-Sensitive, and Profitable**

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

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Tooth-Colored Restorations

We have restored one or more of your teeth with tooth-colored materials. The resin (plastic) material used contains small “filler” particles for strength and wear resistance. These restorations will serve you well for several years. They contain the finest and most up-to-date materials available today. Please be aware of the following information about your new restorations:

Chewing: Avoid chewing excessively hard foods such as hard candy, corn nuts, ice, bones, etc., because the resin material can be broken from the tooth with extreme force. If breakage occurs, replacement of the restoration is not difficult.

Recall Visits: Professional six-month examinations are necessary. Developing problems can be detected at an early stage and repaired easily. Waiting for a longer time may require redoing the entire restoration. We will contact you when it is time for your recall appointment.

Preventive Procedures: To provide optimum longevity for your restorations and to prevent future dental decay and supporting tissue breakdown, please use the following checked preventive procedures:

- a. Brush with a fluoride-containing toothpaste after meals, and clean your teeth with floss at least once a day.
- b. Swish vigorously for 30 seconds daily with a fluoride-containing rinse available from many stores without a prescription. Use the rinse before bedtime.
- c. Use a Water Pik as directed.
- d. Use 1.1% neutral sodium fluoride as a brush-on material. These products require a prescription from us.
- e. Use a mechanical toothbrush.

The Future: We expect several years of service from these restorations. However, after a service period of years, we have seen the following situations occur:

- a. Slight stains may occur at locations around the juncture of the tooth restoration and the tooth. Often, we can remove these stains without redoing the restoration.
- b. Slight chipping at the juncture of the tooth and restoration. Usually these chips can be smoothed by us.
- c. The gums (gingiva) may shrink from the restorations, displaying an unfavorable appearance underneath. This condition may require remaking the restoration or modifying the gums.

Thank you.

PROGRAM

V3554 Class II Composite Resins Can Be Predictable, Non-Sensitive, and Profitable

CLINICIAN RESPONSIBLE:

Gordon J. Christensen, DDS, MSD, PhD

CEO, Practical Clinical Courses

CEO, CR Foundation

Practicing Prosthodontist, Provo, Utah

GOALS & OBJECTIVES

At the completion of this video presentation, participants should be able to accomplish the following:

1. Discuss the status of posterior tooth resin-based composite restorations.
2. List and discuss the financial challenges with class II composites.
3. List and discuss the past and current clinical challenges with class II composites.
4. Discuss why contact areas have been difficult to obtain in the past.
5. State current ways that adequate contact areas can be produced.
6. Discuss how postoperative tooth sensitivity can be prevented when placing class II composites.
7. Compare composite wear during service currently with composites of past generations.
8. Discuss the need for cariostatic properties in class II composites.
9. Relate what types of material breakdown are observed with class II composites over their service life expectancy.
10. List five advantages for composite in class II locations.
11. List the ways staff persons must be involved in the class II composite technique.
12. Discuss the current ability of the technology available to detect initial interproximal dental caries.
13. Discuss what type of anesthetic is most popular and best for most class II composites.
14. List five methods to obtain an adequate dry field for class II composites.
15. Discuss the differences observed in the tooth preparations demonstrated in this presentation when compared with typical G.V. Black suggested tooth preparations.
16. List and discuss the two liner potentials included in this presentation.
17. Name and discuss bonding materials and techniques for class II composites.
18. Describe optimum matrices for class II composites.
19. Discuss the advantages and disadvantages of incremental placement of composite vs. "bulk-fill" composites.
20. Discuss and list the steps and material for finishing class II composites.

OVERVIEW

V3554 Class II Composite Resins Can Be Predictable, Non-Sensitive, and Profitable

Class II resin-based composites have been suggested as a posterior tooth restorative material since about 1968. The materials have evolved through several generations since then. However, class II composite materials did not have adequate physical properties until the mid-1980s.

The resin-based composite materials available today are more similar than they are different. In the past few years, almost all manufacturers have placed so-called nano particles in their composite resins, affording them more optimum smoothness both on finishing and during service.

Current composite materials are excellent, and their observed clinical challenges are more the result of dentist clinical challenges than they are material inadequacies.

The following topics are included in this presentation:

1. Status of posterior tooth resin-based composite restorations
2. Financial challenges with class II composites
3. Clinical challenges with class II composites
4. Obtaining acceptable contact areas
5. Postoperative tooth sensitivity
6. Composite wear related to enamel
7. Composite lack of cariostatic properties
8. Composite breakdown over time
9. Advantages of resin-based composite in posterior teeth
10. Staff involvement with posterior composites
11. The clinical technique for posterior composites
12. Early detection of interproximal carious lesions
13. Anesthetics
14. Obtaining a dry field
15. Tooth preparation
16. Tooth desensitization and disinfection
17. Liners and bases
18. Resin-modified glass ionomer as a liner
19. Flowable resin as a liner
20. Bonding techniques
21. Matrices
22. A comparison of composite brands
23. Curing lights
24. Placing the composite
25. Occlusal analysis
26. Sealers
27. Instructions to patients
28. Practice management tips

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POST TEST

V3554 Class II Composite Resins Can Be Predictable, Non-Sensitive, and Profitable

1. Currently, for posterior tooth direct restorations in the US:
 - a. more amalgam is placed than composite.
 - b. more composite is placed than amalgam.
 - c. amalgam and composite placement are about equal.
 - d. none of the above.

2. Clinical challenges with class II composites are:
 - a. open contact areas.
 - b. voids and bubbles.
 - c. lack of optimum polymerization.
 - d. postoperative tooth sensitivity.
 - e. all of the above.

3. The average revenue production for a class II composite in a typical practice is:
 - a. about right.
 - b. too low.
 - c. too high.
 - d. related to time involvement.

4. Currently, the major reason for postoperative tooth sensitivity with class II composites appears to be:
 - a. high occlusion.
 - b. open contact areas.
 - c. inadequate use of bonding agents.
 - d. acid left on the tooth structure too long.

5. Resin-based composites in all of their dental-oriented forms:
 - a. have excellent cariostatic properties.
 - b. have minimal to no cariostatic properties.
 - c. have fluoride ion in all brands.
 - d. should not have cariostatic properties.

6. The current generation of resin-based composites:
 - a. wear much more than enamel in service.
 - b. wear less than enamel during service.
 - c. have excessive wear.
 - d. are about equal in wear when compared to enamel.

7. Adequate contact areas for class II composites, can be best obtained by most dentists with:
 - a. Tofflemire matrices.
 - b. sectional matrices of several designs.
 - c. plastic wedges.
 - d. separating teeth with an instrument before placing the matrix band.

POST TEST (CONT'D)

V3554 Class II Composite Resins Can Be Predictable, Non-Sensitive, and Profitable

- 8. Resin-modified glass ionomer has been suggested as a liner:
 - a. in all class II composite tooth preparations.
 - b. in the deepest areas of class II composite tooth preparations.
 - c. for all anterior composite restorations.
 - d. less desirable than flowable resin.

- 9. Fast curing LED or plasma arc lights (3-5 second cure for 2mm of A2 resin):
 - a. create more stress in teeth than slower curing lights.
 - b. crack enamel during the curing procedure.
 - c. weaken the resin material because of the fast polymerization.
 - d. none of the above.

- 10. The finishing technique shown in this video suggested:
 - a. water spray and low speed during finishing with tungsten carbide burs.
 - b. dry finishing with 12-bladed tungsten carbide burs, under magnification, with light touch.
 - c. water spray and high speed during finishing with tungsten carbide burs.
 - d. rotary diamond finishing instruments without water spray.

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