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V3104
**Occlusal Splints – Predictable Therapy for
Frequent Use**

Gordon J. Christensen, DDS, MSD, PhD

Materials Included:

Terminology Confusion Clarification
C.E. Instruction Sheet
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AGD Post-Test

TERMINOLOGY CONFUSION CLARIFICATION

The glossary of Prosthodontic terms defines CENTRIC OCCLUSION as the “occlusion of opposing teeth when the mandible is in centric relation. This may or may not coincide with maximum intercuspal position.”

The glossary definition is not the one most dentists have learned, and it may be confusing on the video you are viewing. Previous definitions of CENTRIC OCCLUSION have indicated that this position is the location where the patient chews, regardless of where it is in regard to centric relation.

In this video please interpret the phrase CENTRIC OCCLUSION, which is the older phrase that most dentists use, to mean the MAXIMAL INTERCUSPAL POSITION or MIP, which is the best fit of the teeth regardless of the condylar position.

It is my plan to eventually eliminate the phrase centric occlusion and replace it with the phrase maximal intercuspal position or MI.

Sorry for the confusion!

Thank you!

Gordon Christensen

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Gordon J. Christensen
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Presented by: Gordon J. Christensen, DDS, MSD, PhD & Karen Preston, CDA, RDH, BS

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PROGRAM

V3104 Occlusal Splints – Predictable Therapy for Frequent Use

CLINICIAN RESPONSIBLE

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Founder and CEO, Practical Clinical Courses
Senior Consultant & Previous CEO, CR Foundation
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GOALS & OBJECTIVES

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

1. List four types of occlusal splints.
2. Describe the difference between preventive and therapeutic splints.
3. Describe how an occlusal splint reduces or eliminates the occlusal tooth wear of bruxism.
4. Discuss the percentage of patients having bruxism or clenching.
5. List five treatments, other than occlusal splints or occlusal equilibration, for occlusal diseases or conditions.
6. List six situations for which occlusal splints are useful.
7. Discuss how long is required for a patient to become accustomed to an occlusal splint.
8. Describe the characteristics of bruxism.
9. Describe the characteristics of clenching.
10. Discuss the approximate percentage of TMD patients who can be successfully treated with occlusal splints.
11. Discuss the reasons for use of a splint before an occlusal rehabilitation.
12. Discuss how occlusal splints may be used after an occlusal rehabilitation.
13. Discuss how occlusal splints may be used for orthodontic reasons.
14. Discuss how occlusal splints may be used after periodontal treatment.
15. Describe the characteristics of a full-occlusal resin splint.
16. Describe the characteristics of an anterior repositioning splint.
17. Describe the characteristics of a partial occlusal coverage splint.
18. Describe the characteristics of a soft occlusal splint.
19. Discuss making occlusal splints in the laboratory vs. in the clinic.
20. List the steps in making and seating a laboratory-made or clinically made splint.

OVERVIEW

V3104 Occlusal Splints – Predictable Therapy for Frequent Use

Occlusal splints have been used for over 100 years for both preventive and therapeutic purposes. However, it has been estimated that far more splints are needed than are placed. It has been estimated that about one-third of the world population has bruxism or clenching, and these patients should have occlusal splints. When combined with temporomandibular dysfunction patients, pre- and post-restorative patients, and those needing splints for orthodontic or periodontal reasons, as high as 40% of patients could need occlusal splints.

There are several types of occlusal splints used commonly. Some of the types are:

1. Full occlusal coverage hard resin splints
2. Anterior repositioning splints
3. Partial occlusal coverage splints
4. Soft splints, made in the laboratory
5. Thermoplastic soft resin splints made in the clinic
6. Splints that are hard on the outside and soft on the inside

Preventive occlusal splints are most commonly used to reduce or eliminate tooth wear caused by bruxing or clenching. Therapeutic splints are most commonly used to treat temporomandibular joint dysfunction. Therapeutic and preventive splints have similar characteristics including: canine rise, incisal guidance, at least one centric stop on every opposing tooth, and a maxillo-mandibular centric relation occlusion (CRO) relationship. Occasionally, for various reasons including bruxing, splints are made with both a long-centric and a wide centric occlusal relationship. Splints used for orthodontic treatment have various different characteristics.

Fabrication of occlusal splints may be accomplished either in a dental laboratory or in the clinical office. Fabrication in a laboratory saves clinical time, but is accompanied with a laboratory bill and lack of clinical observation. Fabrication clinically requires clinical time, but eliminates a laboratory bill. Either method of fabrication can be acceptable, and selection of either laboratory or clinical fabrication is up to the individual practitioner.

Although there are many forms of splints, a typical centric-relation-occlusion splint has the following characteristics:

1. occludes with the opposing arch in centric-relation-occlusion
2. minimal thickness on the occlusal surface is 1.5 mm or more in the posterior area
3. canine rise and incisal guidance are present
4. knife-edge adaptation of resin at the juncture of the splint and the palate
5. only a thin veneer of resin is present on the facial surfaces of the molars and premolars
6. resin is not present on the facial surfaces of the anterior teeth
7. resin is thin over the incisive foramen area
8. smooth and well-polished

This presentation demonstrates all of the steps in fabrication of a clinically made splint, shows several types of splints, and suggests uses for these splints.

SUPPLEMENTAL MATERIALS

V3104 Occlusal Splints – Predictable Therapy for Frequent Use

1. CHRISTENSEN, G.J. “Abnormal Occlusal Conditions – A Forgotten Part of Dentistry”. **JADA**. Vol. 126, December 1995. Pp. 1667-1668.
2. CHRISTENSEN, G.J. “Treating Bruxism and Clenching”. **JADA**. Vol. 131, February 2000. Pp. 233-235.
3. CHRISTENSEN, G.J. “Now is the Time to Observe and Treat Dental Occlusion”. **JADA**. Vol. 132, January 2001. Pp. 100-102.
4. CHRISTENSEN, G.J. “Is Occlusion Becoming More Confusing? A Plea for Simplicity”. **JADA**. Vol. 135, June 2004. Pp. 767-770.

POST-TEST

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1. Occlusal splints may be used for (select one):
 - a. preventive reasons.
 - b. therapeutic reasons.
 - c. preventive or therapeutic reasons.
 - d. substitutions for full crowns.

2. Bruxing patients should have an occlusal splint with these characteristics:
 - a. centric-relation-occlusion.
 - b. reverse incisal guidance.
 - c. reverse canine rise.
 - d. long-centric and wide centric.

3. Clenching patients should have an occlusal splint with these characteristics:
 - a. centric-relation-occlusion.
 - b. reverse incisal guidance.
 - c. reverse canine rise.
 - d. long-centric and wide centric.

4. The most commonly made type of splint for TMD should have these characteristics:
 - a. centric-relation-occlusion.
 - b. reverse incisal guidance.
 - c. reverse canine rise.
 - d. long-centric and wide centric.

5. Anterior repositioning splints should be worn:
 - a. mornings only.
 - b. all of the time.
 - c. afternoons only.
 - d. during sleeping and stressed times.

6. Soft splints were recommended for:
 - a. interim or temporary use.
 - b. full-time use.
 - c. nights only.
 - d. days only.

7. Pre-rehabilitation splints should be worn:
 - a. at the anticipated vertical dimension of occlusion.
 - b. all of the time.
 - c. for about 6 weeks.
 - d. all of the above.

POST-TEST (CONT'D)

V3104 Occlusal Splints – Predictable Therapy for Frequent Use

- 8. Post-rehabilitation splints should be worn:
 - a. only when stressed.
 - b. all of the time.
 - c. when sleeping or stressed times.
 - d. with fluoride in them each night.

- 9. A significant potential negative influence observed with partial occlusal coverage splints is:
 - a. extrusion of teeth not contacting the splint.
 - b. breakage of the splint.
 - c. protrusion of the anterior teeth.
 - d. retrusion of the anterior teeth.

- 10. A SVED appliance is:
 - a. a full occlusal coverage splint.
 - b. a partial occlusal coverage splint.
 - c. an anterior repositioning device.
 - d. a soft splint.

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