

# **PRACTICAL CLINICAL COURSES**

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Career Development Program

## **V3105 Uncomplicated Occlusal Equilibration**

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### **Materials Included**

Terminology Confusion Clarification  
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Patient Handout on Occlusal Equilibration  
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Goals & Objectives  
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References  
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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*Product names, the products themselves, and company names change rapidly. Please contact the companies shown to confirm current information.*

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# **Occlusal Equilibration**

## **(modifying the chewing surfaces of teeth)**

1. **Purpose:** Often, teeth and jaws do not occlude (come together) in an acceptable position the result is called malocclusion and has been related to muscle pain and other maladies. Some reasons for malocclusion are fillings or bridges that have been placed piecemeal over a period of years, orthodontics, developmental defects, oral surgery, trauma, natural occurring malocclusion, bruxism, and clenching.
2. **Occlusal equilibration** is the mechanical adjustment of your teeth, dentures, bridges, fillings, or other oral appliances to allow your lower jaw to function in a natural hinge in relation to your upper jaw without improper influence from teeth.
3. **Is Occlusal Equilibration Harmful?:** When malocclusion is present, teeth are equilibrated because some problem exists: pain, abnormal wear, breaking of restorations (crowns), or other conditions. The problem is usually present because the teeth and/or restorations do not meet in harmony with your lower jaw at the proper position. The teeth and fillings have not "worn in" properly. Occlusal equilibration "wears" some areas mechanically and allows the teeth to meet harmoniously. It is not harmful.
4. **The Future:** A simple occlusal equilibration can make the teeth and restorations meet harmoniously. However, slight changes in your occlusion (bite) occur over a period of time, because of small movements of teeth in the jaw bones. More complex equilibrations may require several appointments, and the teeth may shift significantly between appointments. When your symptoms are gone, and your occlusion is relatively stable, your occlusal equilibration will be finished. Placement of any new fillings in your mouth will change the way the teeth contact. The dentist accomplishing this future treatment should be advised of your past occlusion problem.
5. **How Your Teeth Feel:** After occlusal equilibration, your occlusion (bite) will feel different to you. This is to be expected. You will gradually accept this location as your new chewing position.

If you have questions or problems, please call us.

Thank You.

## PROGRAM

### **V3105 Uncomplicated Occlusal Equilibration**

#### 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. Explain the importance of occlusal equilibration.
2. Describe normal occlusion in a young adult.
3. Define centric occlusion.
4. Define centric relation.
5. Define working.
6. Define non-working.
7. Define long-centric.
8. Define wide-centric.
9. Relate incisal guidance to protrusive.
10. List five indications for occlusal equilibration.
11. Discuss the problems that occur if occlusal equilibration is not accomplished for the five indications you listed in statement 10.
12. List the instruments and materials necessary for occlusal equilibration.
13. Describe the difference in tooth roughness/smoothness between use of a diamond or 12-bladed cutting instrument.
14. Describe the clinical steps in the occlusal equilibration technique.
15. Describe why the patient is adjusted in a supine position and also in a sitting-up position.
16. Describe the most common location for initial contact of teeth in centric relation.
17. Describe why cusps are usually not cut in an occlusal equilibration.
18. Describe why marginal ridges, transverse ridges, and central fossa are reduced when accomplishing an occlusal equilibration.
19. Discuss treatment if tooth sensitivity occurs after an occlusal equilibration.
20. Describe the difference between a CRO occlusal equilibration and a long-centric/wide-centric occlusal equilibration.

## OVERVIEW

### **V3105 Uncomplicated Occlusal Equilibration**

Most dentists have had an introduction to occlusal equilibration while in dental school. However, it was taught in the onrush of clinical procedures that were required for graduation, with the result being that many practitioners do not have a practical approach to occlusal equilibration.

This presentation emphasizes a simplified concept of occlusal equilibration that can be implemented into practice easily and accomplished frequently.

Occlusal equilibration is necessary as a part of the overall therapy in the following treatment situations: placement of routine tooth restorations (operative dentistry); orthodontics; periodontics; implant dentistry; fixed and removable prosthodontics; endodontics; and other areas. If partial or complete occlusal equilibration is not accomplished as a part of the preceding treatments, various maladies occur ranging from broken teeth, to the necessity for endodontic therapy, to relapse of orthodontic therapy, or rejection of implants.

It is necessary to know the terminology of occlusion to communicate with other practitioners. The following terms are described and demonstrated in the presentation: centric occlusion, centric relation, working, non-working, protrusive, wide-centric, long-centric, incisal guidance, group function, and canine rise.

The presentation emphasizes and demonstrates establishment of a centric-relation-occlusion (CRO) chewing position during the occlusal equilibration treatment. Long/wide centric occlusal equilibrations are also described and their indications noted. The following indications for an occlusal equilibration are described: pre-restorative; during and post-restorative, as a part of periodontal therapy, as a part of orthodontic therapy, as a part of temporomandibular joint therapy, and for bruxism and clenching. The following steps are suggested and shown for a (CRO) occlusal equilibration:

1. Adjust centric relation with patient in a supine position.
2. Patient rest for a few minutes while sitting up.
3. Adjust centric relation with patient in a sitting position.
4. Adjust working position with patient in a supine position.
5. Adjust non-working position with patient in a supine position.
6. Adjust protrusive with patient in a supine position.
7. Patient rest for a few minutes while sitting up.
8. Check and correct all positions while patient sits up.
9. Reappoint patient for occlusal "touch-up" about 10 days in the future.
10. Reappoint patient for a second occlusal "touch-up" 20 days in the future.

**Occlusal equilibration is a necessary part of many dental therapies, and it is neglected in many situations.**

**This presentation prepares practitioners to accomplish simple occlusal equilibrations with ease.**

## REFERENCES

### **V3105 Uncomplicated Occlusal Equilibration**

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

### V3105 Uncomplicated Occlusal Equilibration

1. Mark the one *incorrect statement*:
  - a. Centric occlusion is the most intercuspated position.
  - b. Centric relation is one mm anterior to centric occlusion.
  - c. Incisal guidance is present in almost all patients.
  - d. Working occurs on the chewing side.
  - e. Non-working is on the non-chewing side.
2. Non-working contacts with opposing teeth:
  - a. should be left intact in the natural dentition.
  - b. should be removed in the natural dentition.
  - c. working contacts should be removed in the natural dentition.
  - d. when working contacts are reduced, non-working contacts are decreased also.
3. Protrusive contacts are:
  - a. almost always present in the natural dentition.
  - b. should be reduced on most patients.
  - c. are usually on the anterior and premolar teeth only.
  - d. usually not homogeneous across the anterior segment.
4. A shift forward from centric relation to centric occlusion is:
  - a. always present.
  - b. about 3 mm forward on the average.
  - c. always pathogenic.
  - d. about 1 mm forward and upward on the average.
5. Casts mounted on a semi-adjustable articulator should:
  - a. be used for study each time before an occlusal equilibration.
  - b. be considered as a good learning experience, but are usually not necessary when accomplishing an occlusal equilibration.
  - c. be mounted in centric occlusion.
  - d. be mounted in protrusive.
6. Select the *incorrect statement*. Occlusal equilibration:
  - a. should start with centric relation adjustment.
  - b. should be accomplished partly in the supine position and partly with the patient sitting up.
  - c. should be considered to be finished and permanent after the second touch-up appointment.
  - d. should be explained carefully to patients before starting the procedure.
7. Select the *incorrect statement*. Cutting and smoothing teeth should be accomplished with:
  - a. a 7406 twelve-bladed bur.
  - b. Prophyl Paste.
  - c. composite polishing paste.
  - d. a medium grit diamond rotary instrument.

**POST TEST (CONT'D)**

**V3105 Uncomplicated Occlusal Equilibration**

8. Bruxism and clenching:
- a. can be stopped by occlusal equilibration.
  - b. are the same conditions.
  - c. can be slowed by occlusal equilibration.
  - d. are not indications for occlusal equilibration.
9. Moving the mandible into centric relation position was suggested to be done by:
- a. dual-handed mandibular manipulation.
  - b. single-handed mandibular manipulation.
  - c. an electronic device.
  - d. both the dental assistant and the dentist manipulating the jaw at the same time.
10. If it appears that accomplishing a CRO occlusal equilibration will cause cutting through crowns or enamel:
- a. discontinue the equilibration.
  - b. adjust only non-working.
  - c. always tell the patient new crowns are needed.
  - d. accomplish a partial occlusal adjustment, with a remaining slide from centric relation to centric occlusion.

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