

website

**College of Denturists
of
British Columbia**

**Complete Denture Evaluation
Clinical Criteria**

Version: website

Clinical Criteria

Clinical Appearance

	0	1	
	Clinical crowns of teeth not exposed or interproximal papillae poorly defined and shaped	Clinical crowns exposed to crown line and well shaped interproximal papillae	
	Extensions Any buccal or labial flange under extended or overextended greater than 3mm or any frenum impingement	All flanges finished to mucogingival border and no frenum impingement	
	Retention and stability Upper denture displaces on maximum opening or no resistance to physical removal and lower denture unstable during functional movements	Denture remains in place on maximum opening and resists physical removal and lower denture stable relative to anatomical structures	
	Central fossa location Centre of lower posterior teeth is lingual or labial of crest of residual ridge by more than 2mm	Centre of mandibular posteriors lies directly over the crest of the residual ridge	
	Plane of occlusion Not perpendicular to mid sagittal plane or no curve of Wilson/curve of Spee or inconsistent with ala tragus plane or occlusal table exceeds mid height of tongue	Perpendicular to mid sagittal plane and curve of Wilson/curve of Spee present and parallel to ala tragus plane and occlusal table approximates 50% of the retro molar pads	

Section 1

Examiners: Use this section
if treatment plan indicates
IOD of 4 mm or less.

If the proposed interocclusal distance is greater than 4mm, use Section 2.

Clinical Criteria

Vertical Dimension of Occlusion and Relation:

This section will test the candidate's abilities and understanding of vertical jaw relationships. To ensure consistency, please follow the suggested procedures to determine vertical dimension of occlusion and vertical dimension of relation.

Centric Occlusion:

For the purposes of this exam, centric occlusion is defined as simultaneous bilateral contact of the posterior occluding surfaces at which the condyle is in its most retruded position from which lateral excursions can be made. There must be a cusp fossa relationship, i.e., full intercuspation with buccal overjet involving at least five contacts per side on at least three teeth per side.

Centric occlusion should be verified prior to interocclusal distance to prevent any proprioceptive behaviour as the patient learns the position of centric occlusion in the dentures, which are the subject of the evaluation.

Table L

0	1
Any premature contact of any tooth or contact on one side prior to the other or less than 5 contacts per side on less than 3 of the posterior occluding surfaces or less than full intercuspation with buccal overjet	Simultaneous, bilateral contact of all posterior teeth with full intercuspation and buccal overjet with at least 5 contacts per side on 3 or more posterior occluding surfaces

Clinical Criteria

To determine interocclusal distance at rest complete the following:

1. Place a mark on the patient's nose and chin.
2. With the patient sitting in a comfortable, upright position, dentures in-situ, have the patient close the teeth together with light pressure and relax the lips and cheeks. Measure the distance between the two marks. Complete this step three times, record your findings below, and calculate the average.

1	2	3	Average
_____mm	_____mm	_____mm	A = _____mm

(To calculate average, add 1_____ plus 2_____ plus 3_____ equals Sub Total _____)

Sub Total _____ divided by 3 = Average _____ . Write amount on line A.)

(A)_____mm

Clinical Criteria

MECHANICAL DETERMINATION OF REST

3. Remove the lower denture.

4. Instruct the patient to open comfortably wide and slowly close together until the lips lightly touch. Measure the distance between the two markings. Complete this step three times, record your findings, and calculate the average.

1	2	3	Average
_____mm	_____mm	_____mm	B = _____mm

5. Instruct the patient to fully wet the lips with the tongue, swallow and relax. Measure the distance between the markings. Complete this step three times, record your findings, and calculate the average.

1	2	3	Average
_____mm	_____mm	_____mm	C = _____mm

Add **B**_____ + **C**_____, then divide by **2 = (D)**_____mm

Subtract the averaged measurement of vertical dimension of occlusion (A) from the averaged measurement of vertical dimension of relation at rest (D)

D_____ - **A**_____ = **E**_____mm

The average mechanically determined inter-occlusal dimension is (E)_____mm

Examiner's Initials _____

Clinical Criteria

PHYSIOLOGICAL DETERMINATION OF REST POSITION

6. Observe the patient during speech, noting the relationship of the teeth during speech.

A. Engage the patient in conversation. This will put the patient at ease and provide a more reliable indication of inter-occlusal distance. The inter-occlusal distance at the rest position should be between 2 – 4 mm when viewed at the premolar region. The measurement may be taken on the face. Document inter-occlusal distance in the table below.

F
_____mm

Add **E**_____ + **F**_____ then divide by 2 (**G**=_____)mm

B. Ask the patient to repeat words with the *ch*, *s*, and *j* sounds. These sounds bring the anterior teeth close together. When correctly placed, the lower central incisors should move forward to a position nearly under and almost touching the upper central incisors. If the anterior teeth touch during these sounds the patient probably lacks sufficient inter-occlusal space.

Tooth Contact During Speech			
	Excessive IOD with no contact of teeth during speech	No contact during speech with appropriate IOD	
	Heavy contact	Light contact	

7. From the **candidate's treatment** plan, indicate the proposed amount of inter-occlusal distance

H=_____mm

Table M

	0	1	
	less than 2mm interocclusal distance	2-4mm interocclusal distance	
	Heavy contact of teeth during speech	No contact or light contact with appropriate IOD during speech	
	excessive milling or adjusting (more than 15% of the occluding surfaces have been removed)	less than 15% of the occluding surfaces have been removed through milling and or adjusting	

Section 2

Examiners: Use this section
if treatment plan indicates
IOD of greater than 4 mm.

Step One:

Determine if Centric Occlusion of Relation is correct in the Candidate's try-in. Place the upper and lower try-ins in the patient's mouth and verify centric occlusion.

Mark the appropriate box in table N

Centric Occlusion of Candidate's Try-in :

For the purposes of this exam, centric occlusion is defined as simultaneous bilateral contact of the posterior occluding surfaces at which the condyle is in its most retruded position from which lateral excursions can be made. There must be a cusp fossa relationship, i.e., full intercuspation with buccal overjet involving at least five contacts per side on at least three teeth per side.

Centric occlusion must be verified prior to interocclusal distance to prevent any proprioceptive behaviour as the patient learns the position of centric occlusion in the dentures which are the subject of the evaluation.

Table N

0	1
Any premature contact of any tooth or contact on one side prior to the other or less than 5 contacts per side on less than 3 of the posterior occluding surfaces or less than full intercuspation with buccal overjet	Simultaneous, bilateral contact of all posterior teeth with full intercuspation and buccal overjet with at least 5 contacts per side on 3 or more posterior occluding surfaces

Step Two:

Determine the patient's interocclusal distance *with their existing dentures*

Vertical Dimension of Occlusion and Relation:

The candidate has proposed an interocclusal distance that is greater than 4 mm. There are valid reasons for interocclusal distance in excess of normal (3mm+/- 1mm).

- ❖ The reasons MUST be noted in the patient record
- ❖ The patient record MUST indicate the amount of IOD of the existing dentures.
- ❖ If the candidate is opening the vertical dimension of Centric Occlusion more than 3 mm, the reason MUST be noted in the treatment plan and/or patient record.

Existing Dentures

To determine the vertical dimension of occlusion of the existing dentures, complete the following:

1. Place a mark on the patient's nose and chin.
2. With the patient sitting in a comfortable, upright position, both dentures in place, have the patient close the teeth together with light pressure and relax the lips and cheeks. Measure the distance between the two marks. Complete this step three times, record your findings below, and calculate the average.

1	2	3	Average
_____mm	_____mm	_____mm	A = _____mm

3. Remove the lower denture.

4. Instruct the patient to open comfortably wide and slowly close together until the lips lightly touch. Measure the distance between the two markings. Complete this step three times, record your findings, and calculate the average.

1	2	3	Average
_____mm	_____mm	_____mm	B = _____mm

Calculate average as above. Place on line B

5. Instruct the patient to fully wet the lips with the tongue, swallow and relax. Measure the distance between the markings. Complete this step three times, record your findings, and calculate the average.

1	2	3	Average
_____mm	_____mm	_____mm	C = _____mm

Add **B** _____ + **C** _____ , then divide by **2 = (D)** _____ **mm**

6. Using the average measurement of vertical dimension of relation, measurement D, subtract the vertical dimension of occlusion of the patient's existing dentures, measurement A, and place the result at E.

D _____ - **A** _____ = **E** _____ **mm**

The average mechanically determined vertical dimension of occlusion of the patient's existing dentures is (E) _____ mm

PHYSIOLOGICAL DETERMINATION OF REST POSITION of existing dentures

7. Observe the patient during speech, noting not so much the sound which is produced but the relationship of the teeth during speech. The production of the *ch*, *s*, and *j* sounds bring the anterior teeth

very close together.

- A. Engage the patient in conversation. This will put the patient at ease and provide a more reliable indication of inter-occlusal distance. Estimate the inter-occlusal distance during this exercise at the first bicuspid region.
- B. Instruct the patient to count from 60 - 70 and observe inter-occlusal spacing and tooth contact.

Estimate the spacing and note the distance in box F below.

Physiological IOD
_____ mm = F

Add **E** _____ (from previous page) + **F** _____ then divide by 2 (**G**= _____)mm

7. The amount of IOD the patient has with their existing dentures in place is _____ (**G**)

Step 3: Determine the amount of IOD with the candidate's try-in in place

Determine Vertical Dimension of Occlusion of the try-in, complete the following:

- 8. Place a mark on the patient's nose and chin.
- 9. With the patient sitting in a comfortable, upright position, dentures in-situ, have the patient close the teeth together with light pressure and relax the lips and cheeks. Measure the distance between the two marks. Complete this step three times, record your findings below, and calculate the average.

1	2	3	Average
_____mm	_____mm	_____mm	I = _____mm

(I) _____ mm

To determine the Mechanical Vertical Dimension of Rest

10. Remove one denture (preferably the lower).

11. Instruct the patient to open comfortably wide and slowly close together until the lips lightly touch. Measure the distance between the two markings. Complete this step three times, record your findings, and calculate the average.

1	2	3	Average
_____mm	_____mm	_____mm	J = _____mm

12. Instruct the patient to fully wet the lips with the tongue, swallow and relax. Measure the distance between the markings. Complete this step twice and record your findings.

1	2	3	Average
_____mm	_____mm	_____mm	K = _____mm

Calculate average as above. Place on line K

Add J _____ + K _____, then divide by 2 = (L) _____ mm

13. Using the average measurement of vertical dimension of relation, measurement L, subtract the try-in's vertical dimension of occlusion, measurement I, and place the result at "M"

L _____ - I _____ = M _____ mm

The average mechanically determined inter-occlusal dimension is (M) _____ mm

Examiner's Initials _____

PHYSIOLOGICAL DETERMINATION OF REST POSITION

14. Observe the patient during speech, noting not so much the sound which is produced but the relationship of the teeth during speech. The production of the *ch, s,* and *j* sounds bring the anterior teeth very close together.

- A. Engage the patient in conversation. This will put the patient at ease and provide a more reliable indication of inter-occlusal distance. Estimate the inter-occlusal distance during this exercise at the first bicuspid region.
- B. Instruct the patient to count from 60 - 70 and observe inter-occlusal spacing and tooth contact.

Estimate the spacing and note the distance in box below.

Physiological IOD
_____ mm = N

Add **M** _____ (from previous page) + **N** _____ then divide by 2 (**O** = _____) mm

The amount of inter-occlusal distance the patient has with the candidate's try-in in place is _____ "O"

15. Using "G" subtract "O" to determine the amount the candidate has opened (or closed) the patient's vertical dimension of occlusion.

G _____ - **O** _____ = _____ (**P**)

Step 4: Determine the candidate's understanding of jaw relationships

Examiner's Initials _____

The generally accepted standard for increasing a patient's vertical dimension of occlusion is 3mm.

Measurement "A" from page 11 determined the patient's vertical dimension of centric occlusion with their existing dentures in place

_____ **A**

Measurement "I" from page 13 determined the patient's vertical dimension of centric occlusion with the candidate's try-in in place

_____ **I**

16. Please check if measurement "**I**" is 3mm (+/- 1mm) greater than "**A**"

NO	YES
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Enter the Interocclusal distance that the candidate has proposed in their treatment plan on Line (Q)

Candidate's proposed IOD = _____ (**Q**)

Then, the candidate's proposed interocclusal distance from the **treatment plan**, must equal (+/- 1mm) the actual IOD measurement obtained in "**O**"

The actual IOD of candidate's try-in (**from "O"**) = _____

17. Please check if measurement "**O**" is (+/- 1mm) of "**Q**"

NO	YES
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Table O

	0	1	
	<p>IOD is less than 4mm or Line 16 is marked NO or Line 17 is marked NO and excessive milling or adjusting (more than 15% of the occluding surfaces have been removed)</p>	<p>Measurement I is 3mm greater than A and Line 16 is marked YES and Line 17 is marked YES and less than 15% of the occluding surfaces have been removed through milling and or adjusting</p>	