

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



# Occlusal Correction

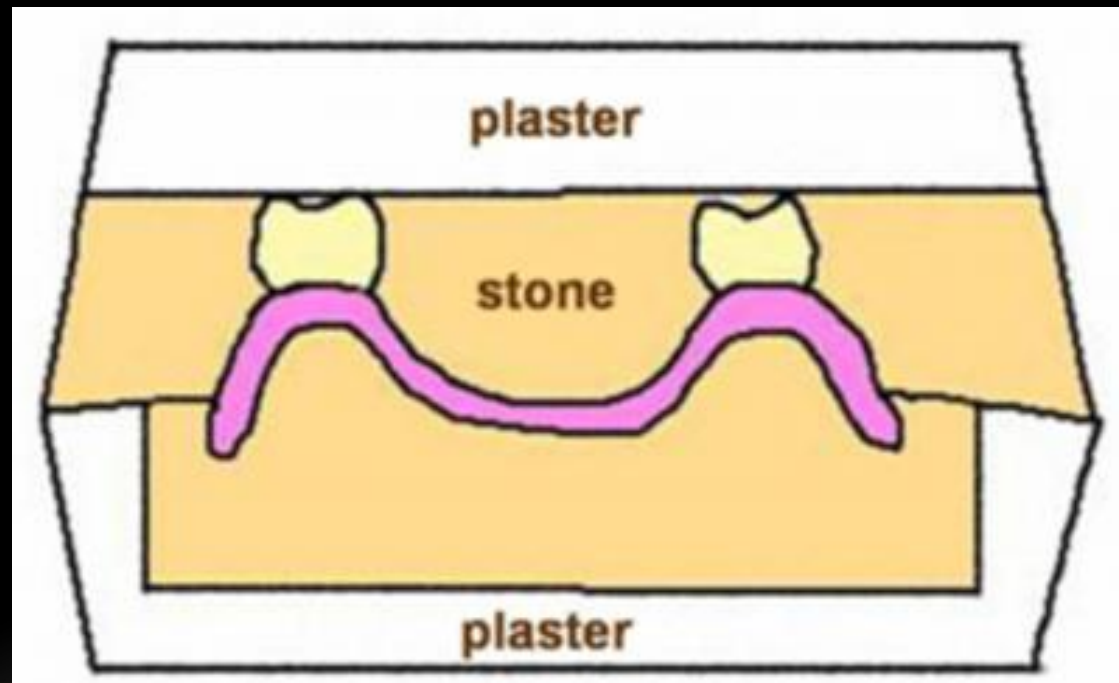


***Prof. Dr. Mohammed Alkhafagy***

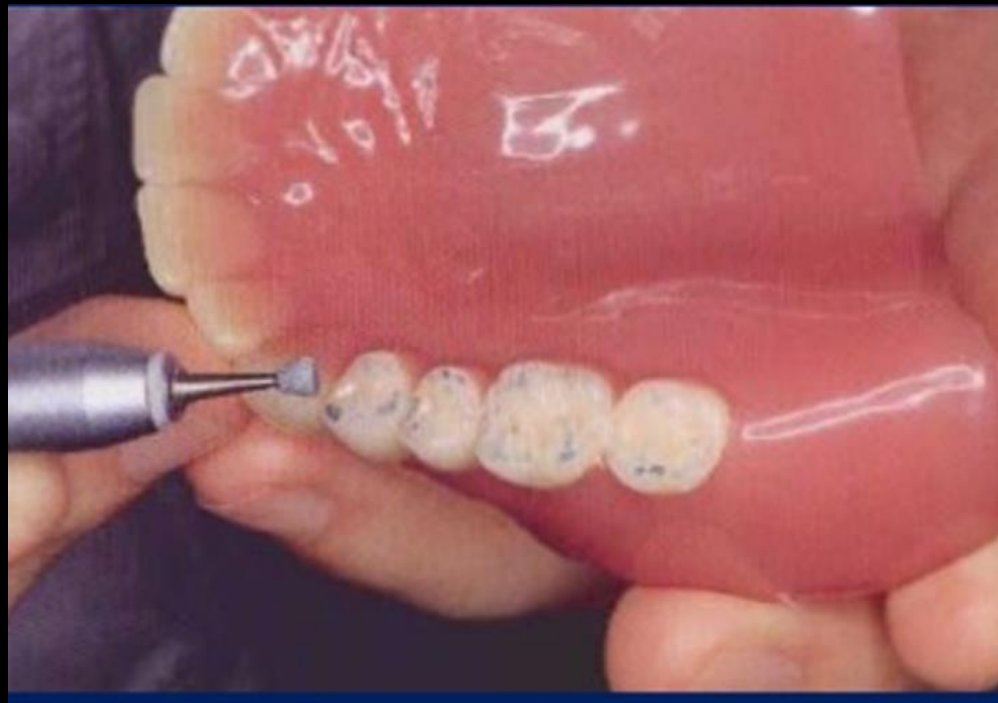
- Artificial teeth move about to a minor degree during festooning and while the wax denture base is being converted in to resin.



- This tooth movement is primarily due to dimensional changes in the wax denture base, in the investing materials, and in the resin denture base during curing.



- Occlusal discrepancies caused by these dimensional changes ordinarily are removed before the dentures are polished.



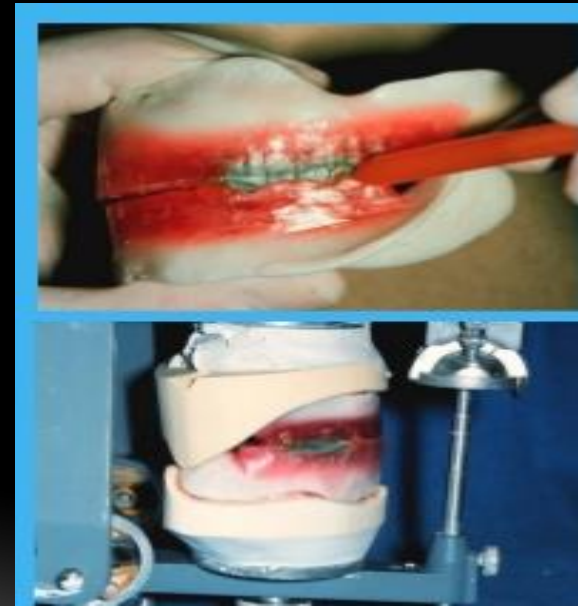
# Importance of Occlusal Harmony

- 1- Comfortable and functions efficiently.
- 2- Preserve the supporting structures



# Causes of Errors in Occlusion

- 1) Inaccurate maxillo-mandibular relation record by the dentist.
- 2) Errors in the transfer of maxillo-mandibular relation.



# Causes of Errors in Occlusion

3) Ill-fitting record bases.

4) Incorrect arrangement of the posterior teeth.



# Causes of Errors in Occlusion

5) Failure to close the flask completely during processing.



# Causes of Errors in Occlusion

6) Warpage of the dentures by over-heating them during polishing.



# Causes of Errors in Occlusion

7) Changes in the denture base material  
(dimensional changes of the acrylic dough).



# Selective Grinding

- 1) Extra-Oral (on the articulator in the laboratory).
- 2) Intra-Oral (inside the mouth).

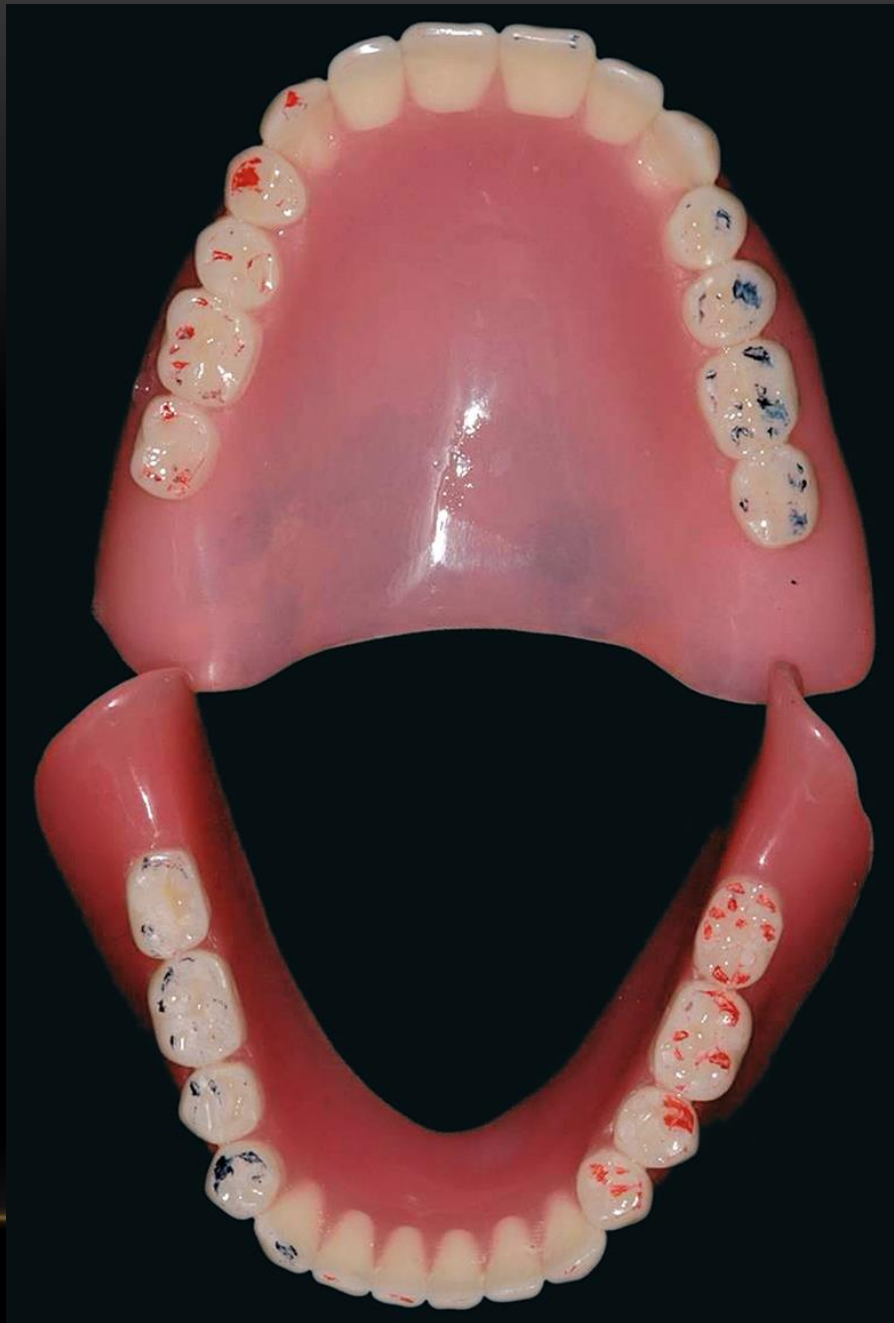


- ❖ Materials used in selective grinding procedure are articulating paper and wax sheet



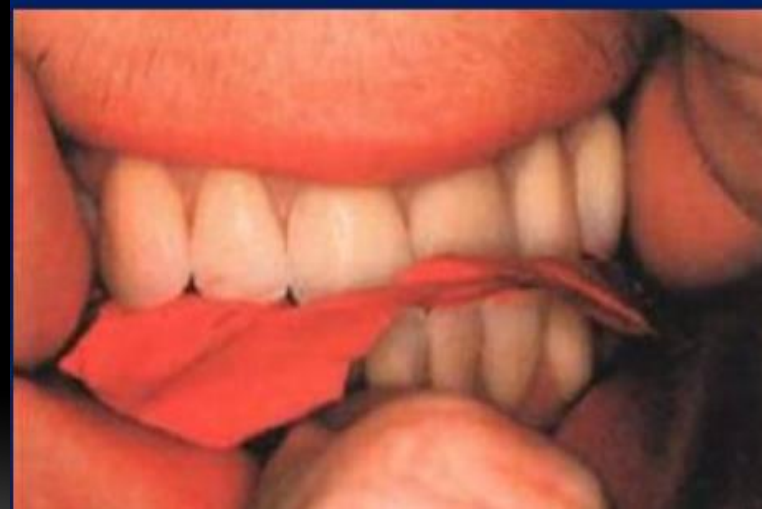
## **THE WAX SHEET IS PREFERRED OVER THE ARTICULATING PAPER FOR THE FOLLOWING REASONS:**

- (1) The presence of saliva will complicate the use of articulating paper intraorally.
- (2) It is difficult to place the articulating paper on both sides of the arch at the same time.
- (3) Finally the articulating paper may color even the teeth that are not in occlusion.



## EXTRA-ORAL SELECTIVE GRINDING IS MORE PREFERABLE THAN INTRA-ORAL SELECTIVE GRINDING FOR THE FOLLOWING REASONS:

1) Presence of **compressible tissue** under the denture that may move with the denture especially in flabby ridge and sever resorbed ridges, while in extra-oral selective grinding the dentures are on hard bases (casts).



## EXTRA-ORAL SELECTIVE GRINDING IS MORE PREFERABLE THAN INTRA-ORAL SELECTIVE GRINDING FOR THE FOLLOWING REASONS:

2) The bad psychological impact on the patient as he will see his teeth ground in front of him in intra-oral selective grinding.



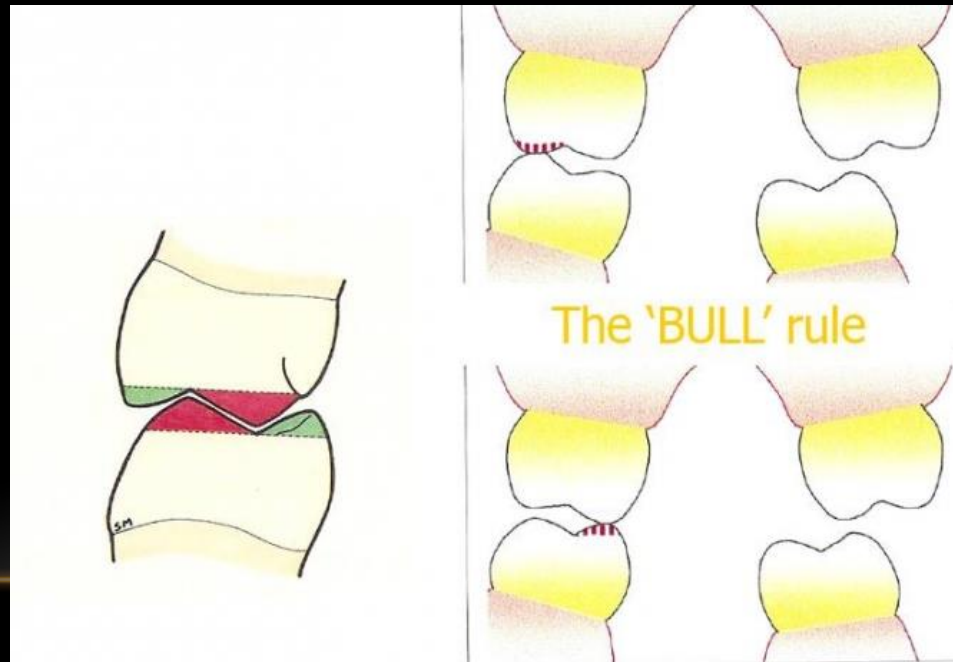
**EXTRA-ORAL SELECTIVE GRINDING IS MORE PREFERABLE THAN INTRA-ORAL SELECTIVE GRINDING FOR THE FOLLOWING REASONS:**

3) Lateral excursion (right and left) and protrusive movements are difficult.



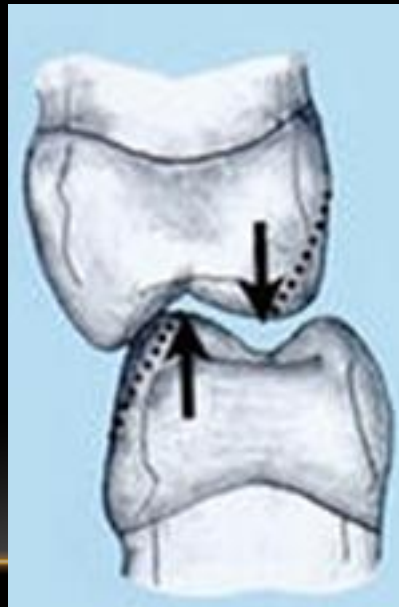
# OCCLUSAL ERRORS IN CENTRIC OCCLUSION

- In selective grinding the **Bull rule** should be considered which means that only the **nonfunctional** cusps should be modified (buccal cusps of maxillary denture and lingual cusps of mandibular denture).



# OCCLUSAL ERRORS IN CENTRIC OCCLUSION

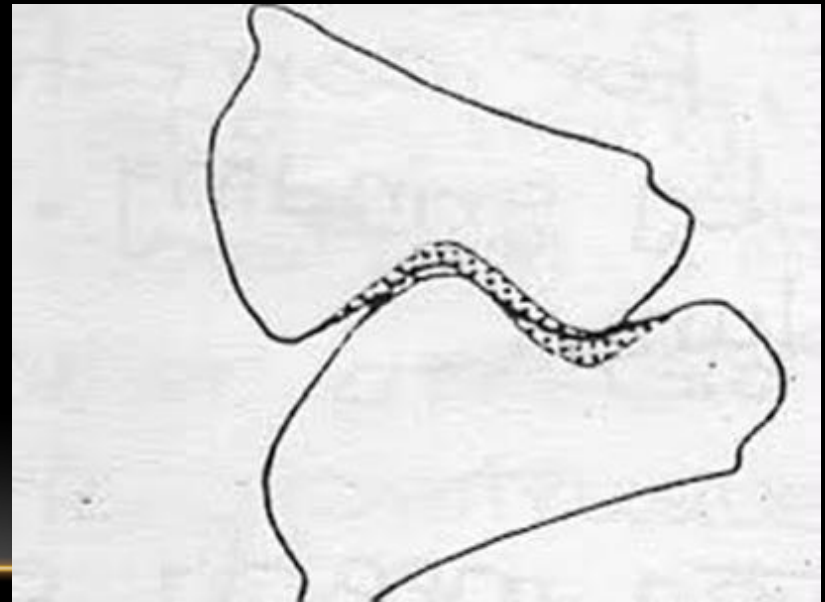
- If the functional cusps are indicated for modification, the opposing fossae should be modified **or** the opposing cusp incline is ground, **not the cusp height.**



## THREE TYPES OF OCCLUSAL ERRORS CAN EXIST IN CENTRIC OCCLUSION AND EACH CAN BE CORRECTED BY SPECIFIC GRINDING FOR THAT ERROR.

- Premature contacts which is holding remaining teeth out of occlusion, i.e any pair of opposing teeth can be too long and hold other teeth out of contact.

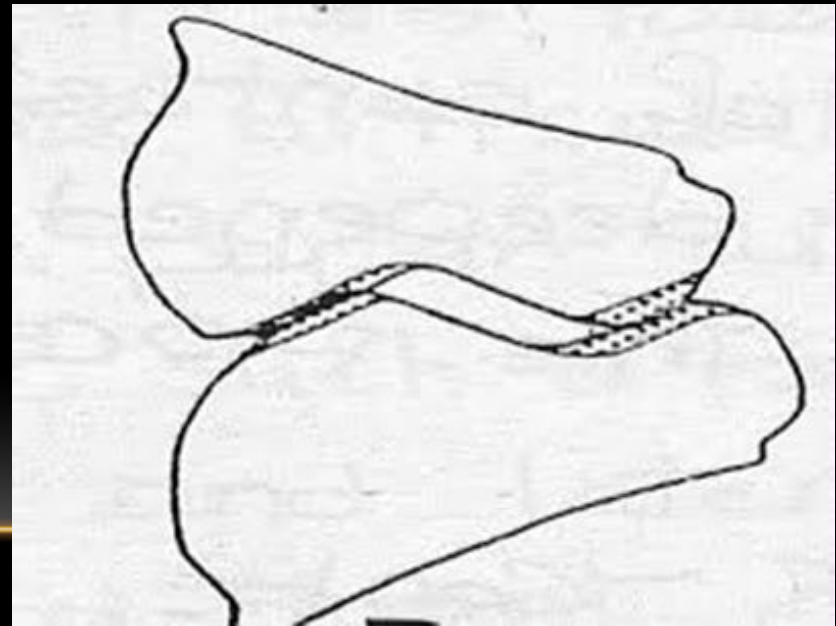
*Solution:* Fossae of the teeth in question are deepened. ***The cusp tips should not be shortened.***



## THREE TYPES OF OCCLUSAL ERRORS CAN EXIST IN CENTRIC OCCLUSION AND EACH CAN BE CORRECTED BY SPECIFIC GRINDING FOR THAT ERROR.

- The cusp tips of opposing teeth appear to be nearly tip to tip.

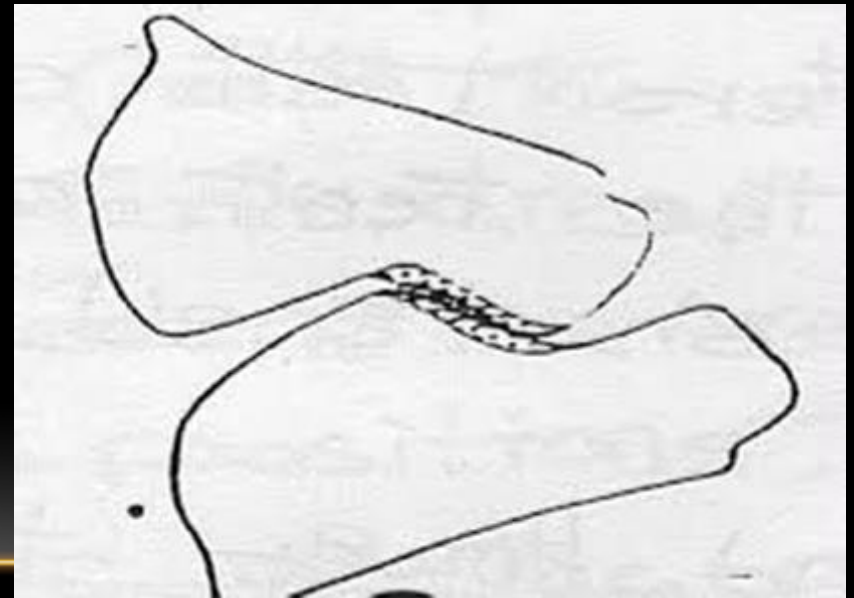
**Solution:** Grind on the inclines to move the upper cusp inclines buccally and the lower cusp inclines lingually. In so doing, the central fossae are made broader, the lingual cusp of the upper teeth narrowed, and the buccal cusp of the lower teeth are also narrowed. ***The cusp tips should not be shortened.***



## THREE TYPES OF OCCLUSAL ERRORS CAN EXIST IN CENTRIC OCCLUSION AND EACH CAN BE CORRECTED BY SPECIFIC GRINDING FOR THAT ERROR.

- Upper teeth too buccal in relation to the lower.

**Solution:** Broaden the central fossae. The buccal cusps of the lower teeth are moved buccally by broadening the central fossae. ***The cusp tips should not be shortened.***



THANKS  
FOR  
ATTENTION