



## **Complete Denture**

### **Guidelines for artificial teeth arrangement & Arrangement of anterior and posterior teeth**

**M.Sc Maha ALmhnna**

**Lecture 10,11**

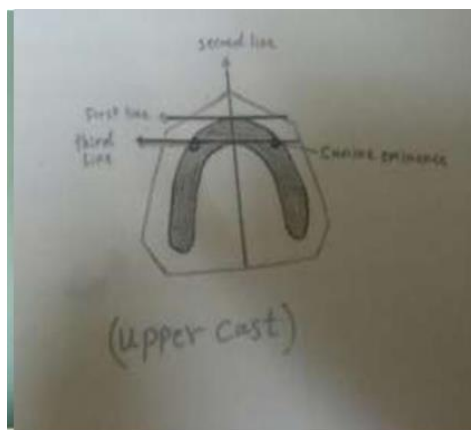
## Arrangement of artificial teeth

In prosthodontics, the term “arrangement” would refer to a procedure of locating, tilting, rotating and spacing artificial tooth/teeth in relation to the plane of reference and to each other with the objective of creating a natural appear and based on biomechanical requirements of complete denture treatment.

### Guide line for artificial teeth arrangement:

#### a-Maxillary cast:

1. First line is drawn parallel to the frontal plane conducting the anterior region of the incisive papilla aids in the positioning of the upper central incisor.
2. The second line which is the midline follows to the median palatal suture and bisects of the incisive papillae and it is perpendicular to the first line.
3. The canine eminence line.

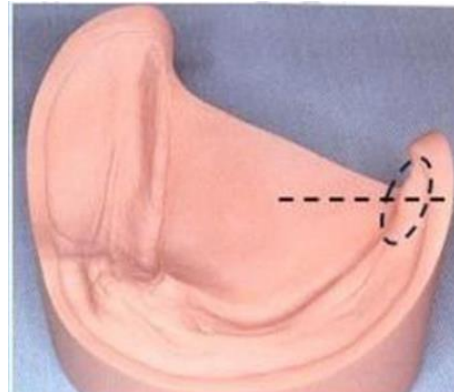
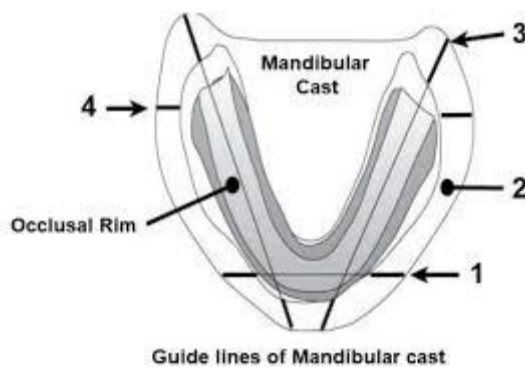


#### b-Mandibular cast:

1. The first line which is parallel to the frontal plane bisecting the residual ridge anteriorly aids in the positioning of lower central incisor.
2. Cusped canine eminence line.

3. Third line follows to the crest of the residual ridge posteriorly and it joined between two point. The first point is the center of canine and the second point is the center of retro molar pad area.

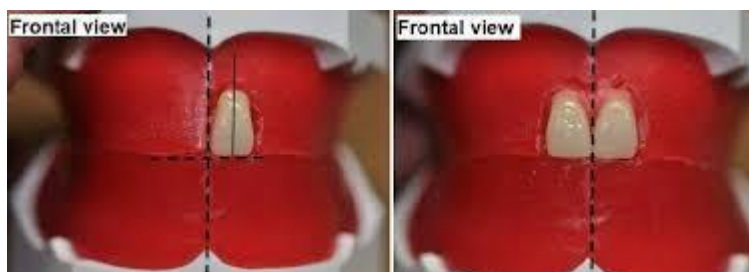
4. The fourth line bisect the upper 2/3 of retro molar pad area it helps for representing of the positioning of the high of the occlusal plane.

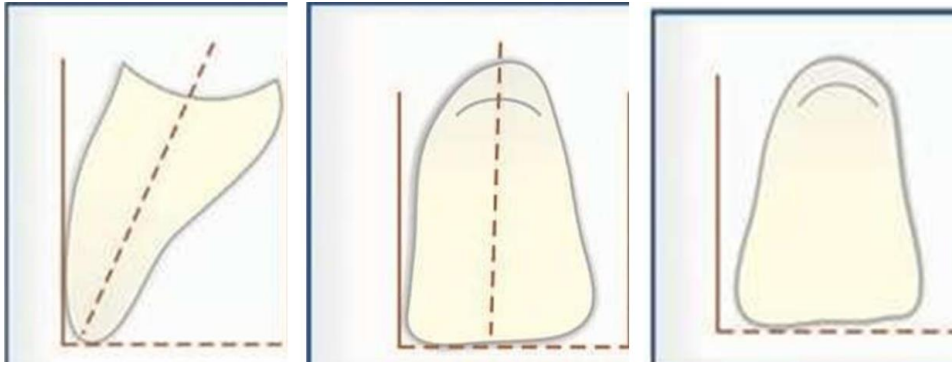


### Arranging maxillary anterior teeth:

1- Central incisor

- a- Central incisor should have slight labial inclination.
- b- Central incisor reveals very slight mesial inclination
- c- Central incisor is in contact with the occlusal plane



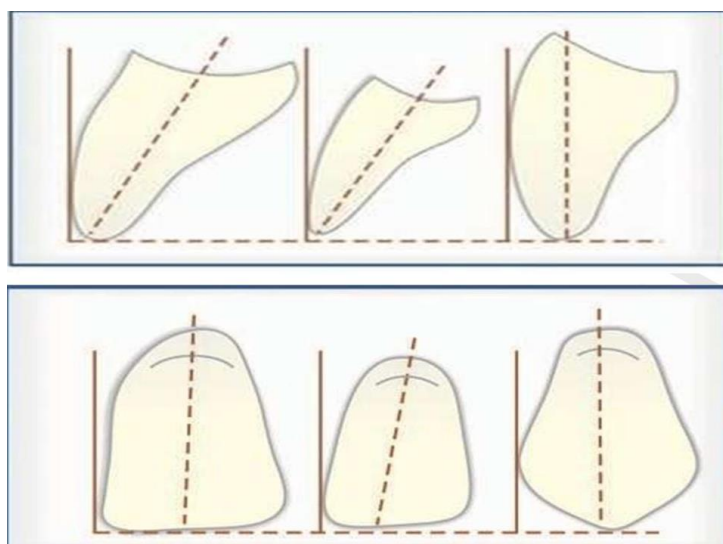


## 2- Lateral incisor

- a- Lateral incisor reveals a little more/relatively more labial inclination compared to central incisor revealed by cervical depression of the tooth
- b- Lateral incisor shows relatively more mesial inclination than central incisor
- c- Lateral incisor remains 0.5-1 mm away from the occlusal plane

## 3- Canine

- a- Canine is located in upright manner with the cervical third of the tooth revealed in a bold manner.
- b- Canine tips remain in contact with the occlusal plane.
- c- The position of canine teeth plays important role in aesthetic appearance of natural teeth in denture it plays an equally important role because it influences both anterior and posterior arrangement.



## Arrangement of mandibular anterior teeth

### 1- Mandibular central incisors

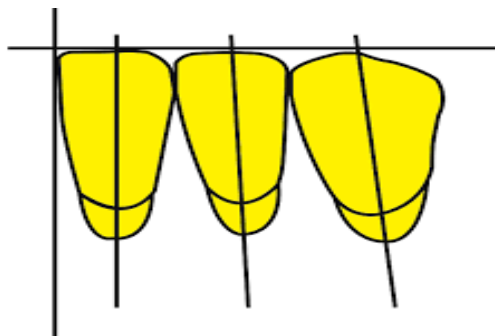
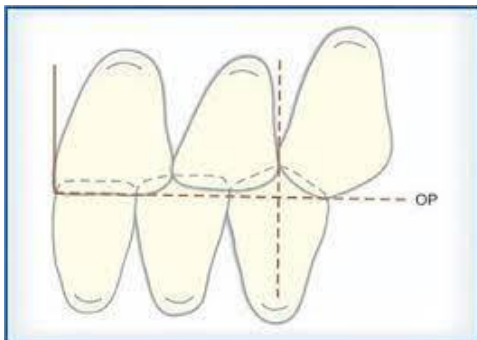
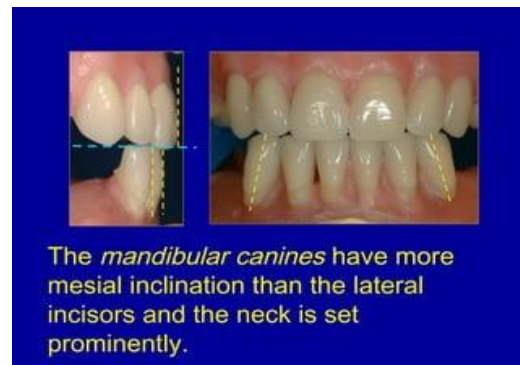
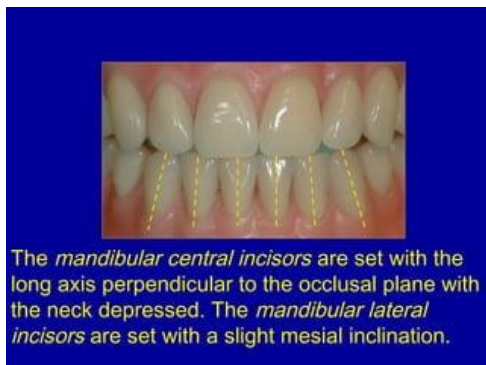
- a- The long axes of lower central are perpendicular to the plane
- b- The incisal edge should have 1-2 mm of vertical overlap (overlap), and 2-4 mm of horizontal overlap (overjet) in respect to maxillary central incisors

### 2-Mandibular lateral incisors

- a- The long axis of lateral incisors inclines slightly distally at the neck.
- b- the occlusal height should be the same at the central incisors.

### 3- Mandibular canines

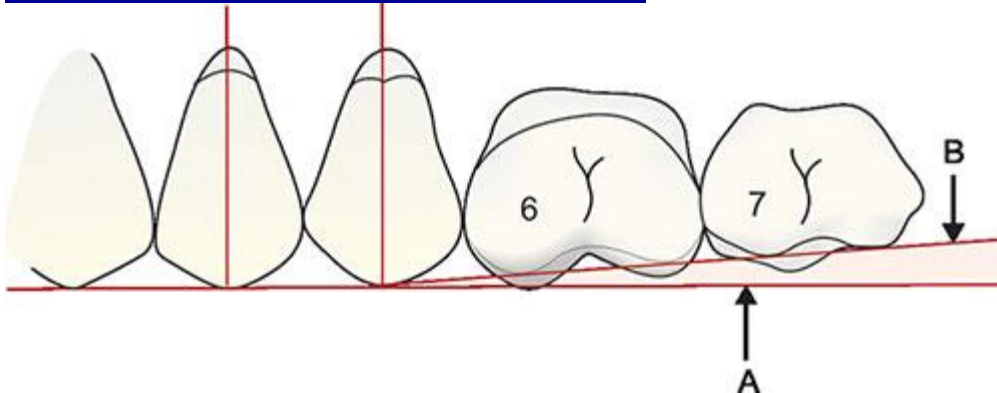
- a- The long axis of the canine incline still more distally at the neck.
- b- The tip of the canine should be at the same occlusal height as the mandibular central and lateral incisors.



## Arrangement of posterior teeth

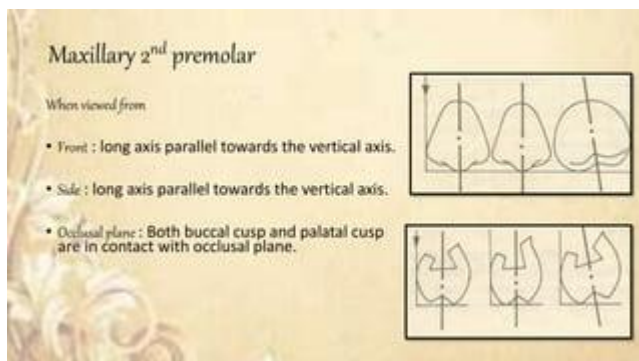
### 1-Maxillary first premolar

Place the upper first premolar with its long axis at right angles to the occlusal plane. The buccal cusp on occlusal plane (the buccal cusp touch plane) but palatal cusp is raised off the plane about 0.5mm.



### 2- Maxillary second premolar

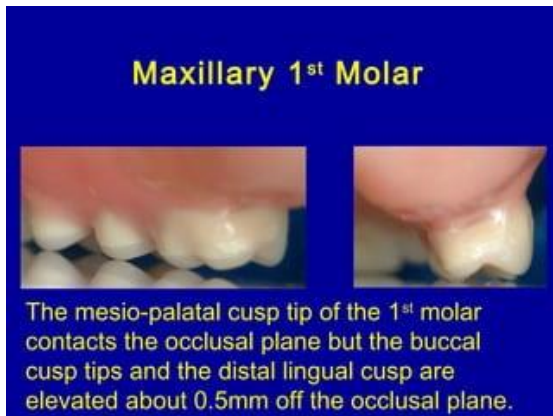
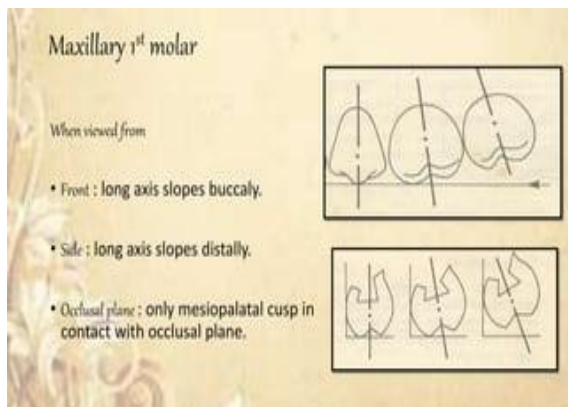
Place the upper second premolar in like manner aligned the facial surface of the premolar and canine with straight edge. The two cusp touches occlusal plane.





### 3- Maxillary first molar

It is inclined buccally in buccopalatal relation and inclined buccodistally in clinical midline relation with the mesiopalatal cusp in contact with occlusal plane.



### 4- Maxillary second molar

None of the cusps contact the occlusal plane. Rias all cusp of the second molar from the lower occlusal plane after positioning the first Molar place the mesio-buccal cusp approximately 1mm from the occlusal plane.



## Arrangement of Maxillary Posterior Teeth

First Premolar			The buccal cusp is touching the occlusal plane
Second Premolar			Both the buccal and palatal cusps are touching the occlusal plane
First Molar			The mesiopalatal cusp is touching the occlusal plane
Second MOLAR			The mesiopalatal cusp is the nearest to the occlusal plane

## Arranging of mandibular posterior teeth:

### 1-Mandibular 1st Molar

This tooth is the key tooth in occlusion so it has to be arranged first. its mesio-buccal cusp tip should engage the embrasure between the upper 1st molar and 2<sup>nd</sup> premolar.





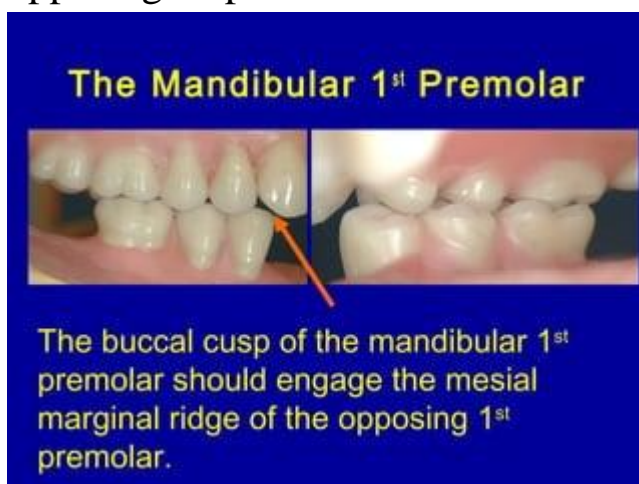
## **2- Mandibular second premolar:**

its buccal cusp should occlude with the adjacent marginal ridges of the maxillary 1<sup>st</sup> and 2<sup>nd</sup> premolars.



## **3-Mandibular first premolar:**

its buccal cusp should engage the mesial marginal ridge of the opposing 1<sup>st</sup> premolar.



#### **4-Mandibular second molar:**

make sure that the lingual cusp of the maxillary 2nd molar properly occludes with the central fossa of the mandibular 2nd molar.

