

Occlusion

Occlusion:

Contact between incising and masticating surfaces of maxillary and mandibular teeth (static teeth relation).

Contact between teeth when mandible is closed and stationary.

Articulation:

Static and dynamic contact relationship between occlusal surfaces of teeth during function.

Centric occlusion:

The occlusion of opposing teeth when the mandible in centric relation it is tooth to tooth relation.

Eccentric occlusion:

Contact of teeth when the jaw in any other relation than centric relation.

Maximum intercuspation:

Complete interdigitation of mandibular and maxillary teeth irrespective of condylar position.

Working side:

The side toward which the mandible move in a lateral excursion.

Balancing side:

The side opposite to the working side. The side move toward the median line in lateral excursion.



Anterior guidance system= Upper and lower anterior teeth.

Posterior guidance system= TMJ.

Various element involved in occlusion:

1. Tempromandibular joint.
2. Neuromusculature.
3. Contact surfaces of teeth.
4. Denture supporting structures.
5. Mandibular movement.

Type of complete denture occlusion:

- A. Balanced occlusion .
- B. Lingualized occlusion.
- C. Monoplane occlusion.

Balanced occlusion:

Simultaneous contacting of the maxillary and mandibular teeth on the right and left and anterior and posterior occlusal area in centric and eccentric position.

- During lateral movement of mandible there was working side occlusion and balancing side occlusion.

Working side occlusion

The contact of opposing maxillary and mandibular teeth on the working side.

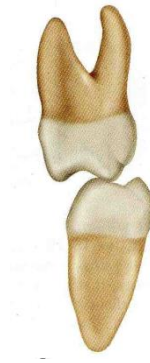


The buccal cusps of maxillary teeth contact the buccal cusps of mandibular teeth, and the palatal cusps of maxillary teeth contact the lingual cusps of mandibular teeth during lateral movement.

- ✓ It is important in grinding of food

Balancing side occlusion

The contact of opposing maxillary and mandibular teeth on the balancing side.



The palatal cusps of maxillary teeth contact the buccal cusps of mandibular teeth during lateral movement.

- ✓ It is important to prevent displacement and maintain the denture in position.



Protrusive balanced occlusion:

The contact of opposing maxillary and mandibular teeth during forward movement of mandible.

Anteriorly the opposing incisors contact and posteriorly the distal incline of maxillary buccal cusp contact the mesial incline of mandibular buccal cusp.

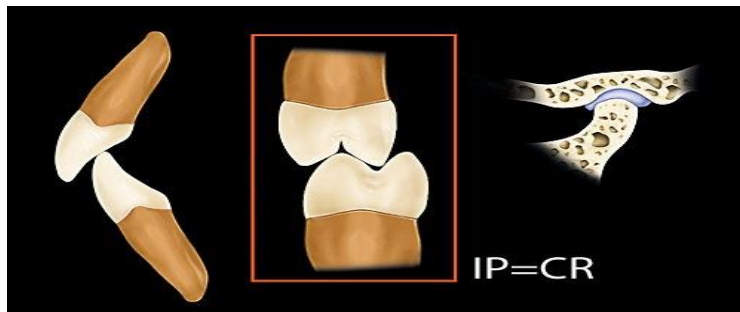


Importance of balanced occlusion:

1. Prevent displacement and aid denture stability by Provide even contact anteriorly and posteriorly.
2. Help in earlier reposition o the denture when it displaced in function.
3. Minimum period required for the patient to adaptation.
4. Prevent trauma to supporting tissue (the load distributed anteriorly and posteriorly).

Factors of balanced occlusion:

- 1) Condylar guidance.
- 2) Incisal guidance.
- 3) Orientation of occlusal plane.
- 4) Cuspal angulation.
- 5) Compensating curve.



Monoplane occlusion (non balanced occlusion):

- Flat occlusal plane set with non anatomic teeth.
- There is no vertical overlap of anterior teeth.
- Posterior tooth contact occurs only when mandible in centric relation. In protrusion there is disclosure of posterior teeth as a result of arrangement in single plane.
- There is no curve of Spee or curve of Wilson (compensating curves).



Indication:

1. Jaw size discrepancies CI II, CI III.
2. Cross bite.
3. Flat ridge
4. Uncoordinated jaw movement.
5. If centric relation not perfect.

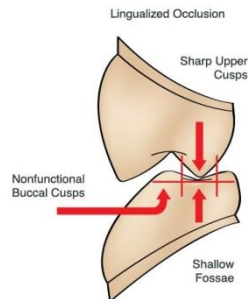
Disadvantages:

- 1) Least esthetic.
- 2) Poor food penetration.

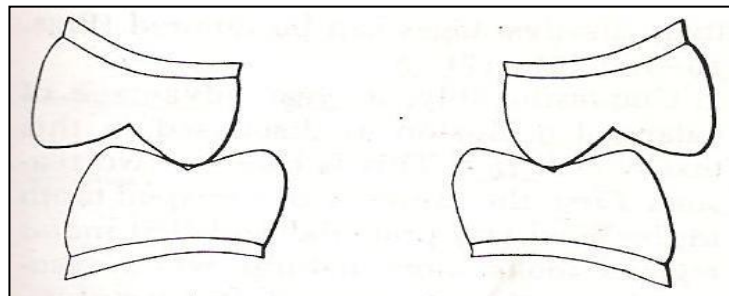


Lingualized occlusion:

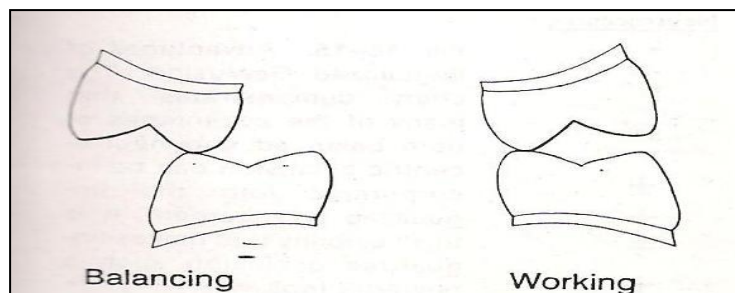
It involves use of large upper palatal cusp against wide shallow lower central fossa.



- The maxillary palatal cusp tip should contact opposite mandibular central fossa in centric occlusion.
- The buccal cusps of upper and lower teeth do not contact each other.
- The cusp incline of mandibular teeth relatively flat result in less lateral force and displacement during function.



Centric occlusion



- In lingualized occlusion better esthetic and food penetration

