***Title of Lecture:Teeth setting and balanced occlusion***

***Date of Lecture: 24/11/2014***

***Sheet no: 9***

***Refer to slide no. : 6***

***Written by: Doa’a Alkhouli***

***Corrected by: Dara Abdullah***

●slide #2,#3,#4 :

Every single tooth has its own orientation that compensates for both its esthetics & function.

●slide #5

When setting the lower teeth, we must take the different relations of the lower teeth with the upper teeth into consideration:

1- The first relation is the “overjet” horizontally. The upper anteriors, as you all know, were set labially inclined. The lower anterior should be set behind the incisal edges of the upper with a space of 1.5-2mm.

2- The second relation is the “overbite” vertically, in which a part of the lower in incisors are covered by the upper incisors. This part should be 1.5 mm in length. To achieve this, the lower anteriors must be set perpendicular to the occlusal plane.

These two components make up the relation between the upper and the lower anteriors; termed “incisal guidance”.

● Note: we set the upper anteriors buccally inclined according to the pattern of resorption there.

● slide #8:

 -Incisal guidance angle: Anatomically, the angle formed by the intersection of the plane of occlusion and a line within the sagittal plane determined by the incisal edges of the maxillary and mandibular central incisors when the teeth are in maximum intercuspation.

-The shallower this angle is in a complete denture, the more stable the denture is.

● slide #11: Protrusion is an eccentric dynamic relation. During protrusion the teeth will move according to the incisal guidance. It is the movement of which the incisal edges of the lower teeth will glide with the lingual surfaces of the upper anteriors until the incisal edges touch. Posterior teeth should remain in contact during this movement to prevent removal of the denture.

●slide #12:

The angle on your articulator is set at 15 degrees as long as the incisal pin is at the zero line & touching the incisal table. If the pin lifts during protrusion, you would have to increase the OJ or decrease the OB.

- You have to know where each cusp will touch in the opposing tooth.



Take a look at the picture above:

Top left triangle: Here the overjet is fixed, but we decreased the overbite, thus resulting in an angle that is much smaller.

Top right triangle: Here the overbite is fixed but the overjet was increased. This will also (as you can see) result in a smaller angle.

Bottom left triangle: Here the overjet is fixed, but we increased the overbite. This resulted in a bigger angle.

Bottom right triangle: Here the overbite is fixed but we decreased the overjet. This will also result in a bigger angle.

●slide #20:

1- Centric occlusion (teeth): maximum interdigitation between teeth; it is coincidence with centric relation.

2- Why do we leave a space between the canine & the 1st premolar during the setting in the lab? For easier setting & easier maintenance of the centric occlusion.

3- Buccal overjet is a horizontal relation of which the buccal cusps of the maxillary teeth are overjetting the mandibular buccal cusps. This helps in protecting the cheeks.

●slide #21,#23,#24 must be memorized.

●slide #27: Eccentric position:-

1- Protrusion: incisal guidance anteriorly. Teeth should remain in contact posteriorly.

2- Lateral movement doesn’t happen in natural teeth. As you see in the pictures, when the working side is moving, the non working side should remain in contact. This is to stabilize the denture. In natural teeth, there will be a space forming on the balancing side during lateral movements.

● slide #35:

The factors for maintaining a balanced occlusion (contact posteriorly in protrusion, contact on balancing side in lateral movement):

1-condylar guidance (fixed factor): is determine by the anatomy of the TMJ.

2- Incisal guidance (can be altered).

3- Cuspal angle (can be altered).

4-occlusal plane (fixed factor): It is the average line between a line joining the cusp tips posteriorly & a line joining the incisal edges anteriorly.

5-compensating curve (posteriorly curving upward as you can see on slide #36). This also can be altered.

There are two compensating curves:

1. Anterio-posterior
2. Medio-lateral: for lateral movements.

Note: We have added the extra explanations & notes, thus you have to refer to the slides as well.