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Doctor : Wala’a Ameen

Written by : Ala’a B. Bashir ♥

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This lecture is going to talk about ;

Relining and rebasing complete denture ..

First of all we should know that **both procedures are for re-fitting the denture** , but there is a difference between

relining and rebasing ;

The difference is that **by relining we mean that we only change the impression surface which is the fitting surface ..**

Note : “ the denture has three surfaces; **Fitting “tissue” surface** “which is the surface facing the mucosal tissue that covers the crest of the ridge as well as the palate for the upper denture”, **Occlusal surface** “which is the occlusal surface of the teeth”, and **Polished surface** “which is the surface facing the buccal mucosa as well as the tongue”.

So our object here in relining is to change the fitting surface in order to achieve **stability** of the denture .

As we all know stability is a combination of support and retention, so we don’t have to construct a new denture , we only change the fitting surface of the denture and it will become more stable inside the patient’s mouth ☺

Regarding Rebasing ; its changing the entire base of the denture which means that we are having problems in **Retention**, **Stability**, and **Support** ; all together have to be changed .

for example patients who wear dentures for the first time because they are not tolerated to it ; they feel that its extended way back to the postdam area and they try to trim it with anything from that area , we all know how much postdam area is important in retention , so the denture will lose all the ideal properties , in cases like this we need to change the entire base of the denture, Not only the fitting surface, and this is why this procedure is called **Rebasing**.

Again , in case of rebasing we are happy with the occlusion and everything but we lost retention , stability and support because we missed a piece from the base that’s why we will choose to change the base only not to construct a new denture .

Lets now start talking about **indications** for relining and rebasing :

* First **: immediate dentures** are good for 6 months but then the denture becomes lose because at the first 6 months of extraction the bone will resorb , the sockets and sites of extractions will heal and all of this will change the fitting surface of the denture so we should ask the patient to come for follow up visits after constructing an immediate denture to check the stability of it , such cases are good examples for relining the denture .

-Second : **Old dentures** “ its very important to know that by old dentures we don’t mean the dentures we make at clinics and at the day of insertion we find out that they are not retentive ; this is not an indication of relining and rebasing ; new dentures must be very stable and retentive 🡪 there is no new denture that is indicated for relining and rebasing “

Old denture are those who served the patient for years and years and they become lose with time .

* Third : **the cost** ; sometimes ; patients can’t afford paying to make a new denture
* Fourth “ last indication “ : **the elderly patients** “ above 80 years “ who might be sometimes on a wheel chair , they consider the denture they have as part of them so they don’t let you make any changes to their denture , they cant adapt new ones so what we do here is to upgrade their existing denture .

Before we make rebasing or relining we must make sure that everything is satisfactory , occlusal vertical dimension should be optimum , patient should have proper harmonious centric relation and centric occlusion , teeth should meet their maximum intercuspation and there should be enough free way space , ofcourse when the patient’s vertical dimension is correct the jaw can go back to the most retruded position which is the same as centric relation position.

* Centric relation :is the [mandibular](https://en.wikipedia.org/wiki/Human_mandible) jaw position in which the [head of the condyle](https://en.wikipedia.org/wiki/Mandibular_condyle) is situated as far posteriorly and superiorly as it possibly can within the [mandibular glenoid fossa](https://en.wikipedia.org/wiki/Mandibular_fossa). at established vertical dimension of occlusion.

Vertical dimension of occlusion is very important key in establishing correct centric relation ; with every degree of separation between the upper and lower jaws, there

is a new position for the condyle, when the patient opens his mouth wide, the condyle rotates at the first portion of movement at its place, then it translates along the articular eminence in a downward forward direction, so the mandible is no more in the protrusive position, what we need to do is to keep the vertical dimension of occlusion stable .

* The satisfactory vertical dimension of occlusion is the correct vertical dimension of the patient ☺
* Note that when you have reduced vertical dimension of occlusion you see that the lower part of the face becomes very reduced , you see the chin approximating to the maxilla and the nose , and it gives the patient old age appearance .

When the vertical dimension and centric relation are correct , the patient’s phonetics are correct as a result √

* Extension of the denture till the postdam area : it has to be reaching the junction between the hard and the soft palate “ it’s the area where we can have compression against tissues so we have proper peripheral seal “ Anything less than that considered unacceptable and we should make rebasing in order to extend the base more posterior .
* Regarding the flanges , they should always be extended to the full depth of the sulcus “ reaching the functional depth “ .

Now we can talk about **the procedure of making rebasing or relining** , first of all we should make sure that the denture is becoming lose , all undercuts must be reduced , we reduce everything from the fitting surface “ using high speed burs “ , we remove any occlusal discrepancies , we make sure that the denture goes in and out without any friction against the tissues , then using the denture itself as a special tray to make an impression with , so we put the impression material “ ZO E “ at the fitting surface and we register the impression at the patient’s occlusal dimension “the patient is closing against the denture , that’s how we guarantee that the patient is closing on his own vertical dimension not with the help of the operator’s finger pressure “

* Keep in your mind that before taking the impression we need to register the borders extension with green stick to record the functional sulcus depth and width “ border molding “ .

Don’t’ forget that the patient must close his mouth everytime you put any segment of the border of the green stick in the mouth .. **ALL THE PRESSURE APPLIED TO THE UPPER DENTURE SHOULD BE MADE BY THE PATIENT’S OCCLUSAL VERTICAL DIMENSION .**

When all the borders are completed , we **reduce the fitting surface of the denture to allow a room enough for the impression material and usually the most common impression material used for relining is ZOE** ,some clinician prefer using light body silicone or medium , not the butty . anyway all of the mentioned materials need a space that’s why we should trim the fitting surface **about 1 mm** to allow the impression material to be accommodated within the fitting surface of the denture .

The impression itself is taken in two techniques , its called the close mouth impression techniques , that is in occlusion , the **first procedure** which is the one that’s **most commonly used by clinician is the static functional impression** ; It takes about 3 - 5 mins .

After the border molding is made we load the upper denture with the impression material and then we ask the patient to close in the inter cuspal position - ICP - ; patient should be in occlusion . please note that we should have freeway for the excess material to go out through , so what we do is we put two escape holes at the roof of the denture base near the rugae area with round large bur so the excess impression material can go down , we should inform the patient that there will be some impression material on the dorsum of the tongue while we are taking the impression .

So again as we said what we do is to make the patient close in centric “ ICP “ while the ZOE is setting inside the mouth so we take the impression under the patient’s own occlusal loads “ not under your finger’s pressure “ that’s why its called functional .

You should check the impression , if its acceptable , it should be poured IMMEDIATELY , don’t send it to the lab , you try to pour it in your clinic .

**\*\* its very important for viva exam to keep in your mind that we take the impression on the patient’s occlusal load & pouring the impression is done immediately and the cast should not be separated at all from the impression , it should be kept and flasked right away , only after flasking we can split the impression from the cast .**

The **second procedure**  its also functional but this time its more **dynamic** than static , , its taken in close mouth technique also , but here we will use a different material, which is **Soft Liner Material “Tissue Conditioner**” , powder and liquid , made up from a copolymer, and plasticizer , it stays soft for 2 to 3 weeks & at the stage of mixing it will become gel like material, which will get its initial set in short period of time, which is the time we ask the patient to perform the close mouth technique, then we get the impression out and remove the excess material over the polish surface, and replace it in the patient’s mouth, and send him back home for one day **“ 24 – 30 hours “** , during this period the material still recording details while the patient is using the denture in his routine daily life even sleeping with the denture , when the patient comes back, we take the impression out and pour it immediately.

\*\* Again ; The impression should not be separated from the cast for any reason, and then we go for flasking, at the time of opening the flask we can see the model, and if we need any further carving for the post dam area, and clean the old denture we can do it.

There is **a second stage of reduction** of the fitting surface , we really need to refresh the fitting surface before we apply the new PMMA , you remember **that we took about 1 mm before we took the impression in order to afford space for the impression material “ that was our first stage of reduction “** and now after cleaning the impression material **we need to expose the subsurface , so we remove about 0.5 mm from the denture because the subsurface layer is more reactive than the surface**. It has more methyl free radicals in it so it can react with the newly mixed dough of PMMA .By this way we make sure that there will be carbon carbon double bond between the new surface that’s applied and the freshen old surface of the denture **. So we have 2 reductions needed to be done during relining .**

In Rebasing ; remember that we remove the entire base , we need to trim the whole base but leaving a small layer of acrylic over the teeth to hold the teeth together, then we place the newly mixed dough, and continue the process to the end.

- by following the steps from the beginning to the end exactlly as we mentioned , we will make sure that the vertical dimension and the occlusion of teeth have not been changed at all, and the feature will continue to be satisfactory the same as the day of insertion.

* The two important things that the doctor kept mentioning “ taking impression on occlusion and not to separate the cast from impression “ ; both are done to keep the vertical dimension and the occlusion of teeth the same √

 Do Not give up ,

The beginning is always the hardest ☺