# *Sequelae of CD*

# *(Post insertion problems in complete denture)*

Loss of natural teeth &subsequent alveolar resorption has a significant impact on appearance &function. CD fabrication techniques, &placement of a CD are not the final steps in the treatment of a dentulous patients &patient's visit to the dentist continues long after that. Two third of denture wearers surveyed in a study reported that they were " very satisfied" with their maxillary denture as compared with 51% for mandibular dentures of the individuals who wore their dentures all day, 5% were " very dissatisfied" with at least one of their dentures. Many practitioners will experience a situation, when a patient with newly fabricated CD continues the experience difficulty in adapting to them; this can lead to a long period of appointments that may not result in resolution of the problem. So, there is some patient factors either age, gender, medical or psychological status that is hindering the success of treatment. Several authors cite the most frequent complaints with CD are those pertaining to aesthetics, retention &stability, comfort while eating, &the accumulation of food under the appliance. The factor that most often appears to have an impaction either success or failure of CD is aesthetics.

## Many factors may influence patient's satisfaction with their dentures:

1. Quality of bone/tissue.

2. Oral mucosa of denture bearing area, tissue changes that occur on denture bearing area due to alveolar ridge resorption lead to poorer denture retention &stability which consequently affects patients' satisfaction.
3. The adaptability of the neuromuscular mechanism.
4. Individual feeling of security by denture wearing.
5. Viscosity of saliva.
6. Patient's age.
7. Position of occlusal plane.
8. Occlusion.
9. Hygiene, type of food, etc.

## Post insertion problem classification:

1. Problem related to soft tissue.
2. Problem related to function.
3. Problem related to aesthetic.
4. Problem related to phonetic.

| **Problem related to soft tissue** | | |
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| **Sore spots- mandible** | | |
| **Complains/area** | **Causes** | **Treatments** |
| Peripheral areas | 1.Over extension | Adjust denture accordingly |
| | 2.Unpolished or sharp edge | Polish denture borders |
| | 3.herpetic or aphthous ulcer | Leave denture out as much possible &wait 7-10 days. |
| Crest of ridge | 1.bone spicules. | Identify the area in dentu with PIP & provide relief ov spicule &/or surgical remove spicule. |
| | 2.spinous ridge crest | Provide relief in the denture |
| | 3.pressure spots at time of impression. | Use PIP or indelible pencil determine the areas& adju accordingly |
| | 4.occlusal prematurities. | Correct occlusal defec recheck vertical dimensi &clinical remount. |

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| Side of ridge-anterior area | 1.over extension | Use PIP &adjust bord involved |
| | 2.maximium intercuspation not in harmony with centric relation (CR) | Enlarge centric area; gri mesial inclined planes maxillary teeth& dis inclined planes of mandibul teeth using a clinical remour |
| Side of ridge-bicuspid area | 1.lingual tori (nonyielding areas) | Provide adequate relief denture base. |
| | 2.pressure spots at time of impression | Adjust denture accordingly. |
| | 3.shrinkage of denture during processing | Rebase denture |
| | 4.errors in occlusion-occlusalprematurities. | Check occlusion on t opposite side of arch from t sore spot. |
| | 5.pressure on mental foramen if ridge is greatly resorbed. | Provide adequate relief. |
| Under lingual flange | Maximum intercuspation not in harmony with CR (drives mandibular denture forward) | Enlarge centric area &adju local area. |
| Under labial flange | 1.excessive overbite | Adjust anterior occlusion |
| | 2.habit-mastication in protrusive relation. | Train patient to masticate centric. |
| Generalized soreness &redness | 1.heavy biting force-strong musculature. | Reduce buccolingual width teeth; reduce VD;use s lining if necessary |
| | 2.excessive OVD | Reduce VD |
| | 3.locked occlusion | Enlarge centric area. |
| | 4.failure to provide freedom for Bennett movement (soreness usually on working side). | Reduce cusps to a no anatomic plane or reset teeth |
| | 5.Improperly processed base materials | Rebase denture. |
| **Sore spots- maxilla** | | |
| **Complains/area** | **Causes** | **Treatments** |
| Peripheral areas | 1.Over extension | Adjust denture accordingly |
| | 2.Unpolished or sharp edge | Polish denture borders |
| | 3.herpetic or aphthous ulcer | Leave denture out as much possible &wait 7-10 days. |
| Maxillary frenum | Over extension | Open a V-shaped notch f the labial frenum&widen t |

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| | | buccalfrenum area |
| Posterior border of denture | Sharp edge at the post dam area | Adjust sharp edge slight without reducing dam area |
| Midline of denture | Prominent mid suture or torus maxillaries | Provide some relief over t area |
| **Generalize discomfort** | | |
| 1.improper occlusion | | Correct occlusion (clinic reline) |
| 2.maximum intercuspation not in harmony with CR | | Enlarge centric area(clinic reline) |
| 3.excessive OVD | | Reduce VD(clinical reline) |
| **Burning sensation** | | |
| Maxillary anterior hard palate &ant. alveolar ridge area | Pressure on anterior palatine foramen | Relief area over foramen |
| Maxillary bicuspid area or molar tuberosity | Pressure on posterior palatine foramen | Relief area over foramen |
| Mandibular anterior region | Pressure on mental foramen | Relief area over foramen |
| Generalized | Improperly processed | Reline denture; replace much as possible ba material with **new** acrylic |
| Tongue | Allergic reaction/xerostomia | Treated according to t cause |
| **Redness** | | |
| Fiery redness-all tissue contacted by denture including tongue &cheeks | Denture base allergy (very unusual) | Remake denture and use metal base (after allergy test |
| Bearing tissues | Ill-fitting denture, avitaminosis | Remake or rebase denture Employ vitamin thera regimen. |
| **Tongue &cheek biting** | | |
| Thin or under extended periphery (base material does not provide enough support for the cheek) | Build out thin areas, or extend the sho periphery. | |
| Insufficient inter-arch clearance between distal parts of denture base. | Thin maxillary denture over tuberosity; if mo space is required, remove it from the retromol area of the mandibular denture. | |
| Inadequate amount of horizontal overlap in molar region. | Re-contour buccal surface of mandibular mola &bicuspid; eliminate the tight contact of t | |

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| | max. buccal cusps on the mand. buccal surface | |
| **Pain in TMJ** | | |
| Insufficient or increased OVD | correct OVD | |
| maximum intercuspation not in harmony with CR | Make new occlusal record, regrind &remou occlusion. | |
| Arthritis | Treat with analgesic | |
| Trauma | Treat with analgesic | |
| **Gagging** | | |
| Immediately upon insertion | 1.max. denture over extended or too thick in posterior border. | Adjust denture or th posterior border. |
| | 2.lack of retention | Reline denture. |
| | 3.Mand. denture too thick in distolingual flange. | Reduce thickness distolingual flange. |
| Delay (2weeks-2 months after insertion) | 1.incomplete border seal allowing saliva under denture. | Increase border seal with se curing acrylic resin (possib at the posterior palatal borde |
| | Improper occlusion causing denture to loosen & allowing saliva under denture. | Correct occlusion (clinic remount). |
| **Deafness** | | |
| Excessive OVD | Reduce OVD | |
| **Fatigue of the muscles of mastication** | | |
| Excessive OVD | Reduce OVD | |
| Insufficient OVD | Increase OVD | |
| **Problems related to function** | | |
| **Instability** | | |
| **Complains/area** | **Causes** | **Treatments** |
| Looseness of mandibular denture | 1.errorrs in occlusion (maximum intercuspation not in harmony with CR) | Correct faulty occlusion remount &regrind procedure |
| | 2.occlusion plane too high | Reset teeth at a lower plane. |
| | 3.under extension of periphery (inadequate impression). | Rebase denture providi proper extension. |
| | 4.inability of patient to master denture. | Use denture adhesives to he develop skill in handli denture (for a short tir only). |
| | 5.Tongue position (retracted tongue) | corrected by having patien **train** themselves to pla their tongue over the **groo** on the lingual surface of t denture |

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| Looseness of maxillary denture | Occasionally | under extension in some area | Correct with self-curi acrylic resin; first che with compound f diagnostic purpose. |
| | | Faulty occlusion | Correct occlusion |
| | | Overextension of peripheries | Adjust dentu accordingly. |
| | | Dehydration of tissue due to alcoholism | Remove the cause. |
| | | Displacement of flabby tissues when making impression | Correct surgically; modi impression technique change primary dentu stress-bearing area to t buccal shelf. |
| | When eating on either sides | Nonyeilding area in hard palate (ridge tissue yields under chewing stresses; denture rocks on hard area). | Provide relief chamb over non yielding area. |
| | | Incorrect tooth position (teeth may be set too far buccally off ridge). | Rebalance in later excursions; reset tee where natureshould ha had them. |
| | | Chewing resistant food | Instruct patient to mainta soft diet until mouth conditioned to weari denture. |
| | Approximately every 2hours | Heavy mucinous saliva | Prescribe astringent mou washes &regul scrubbing of dentu reduction of carbohydrat |
| | | Incorrect tooth position (teeth may be set too far buccally&labially | Correct surgically; chan primary denture stres bearing area to the bucc shelf. |
| | | Improper incising habits | Train patient to mastica in CR. |
| | When yawning or opening wide | Denture base too thick in buccal | Reduce thickness denture base. |

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| | | posterior area ,coronoid process exerts forward &downward force on posterior of denture upon opening | |
| | | Overextended in hamular notch | Shorten denture un pterygomaxillary ligame does not exert tension posterior border wh mouth is opened wide. |
| | | Inadequate PPS | Increase PPS with se curing acrylic resin. |
| | When talking | Inadequate PPS | Increase PPS with se curing acrylic resin. |
| | | Overextended in posterior region | Shorten posterior until so palate does not l upward& break conta with denture base |
| | When occluding in CR | Improper occlusion | Correct occlusion |
| | | Poor denture foundation (flabby tissues over ridge). | Correct surgically; chan primary denture stres bearing area to the buc shelf. |
| | | Incorrect tooth position (teeth may be set too far buccally. | Reset teeth. |
| | | maximum intercuspation not in harmony with CR | Enlarge centric area. |
| | | Nonyeilding area in hard plate. | Provide relief in area. |
| | Only a feeling of looseness (support &retention are present yet denture feels | Large area of non-yielding tissue in hard plate. | Provide relief chamb adequate to permit dentu to be properly seated. |

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| | suspended in mouth). | | |
| **Interference** | | | |
| When swallowing | Max. denture too thick or overextended in posterior region | Reduce thickness or adju posterior | |
| | Mand. denture too thick or overextended in posterior lingual flange area. | Reduce thickness or adju posterior lingual flange area. | |
| | Insufficient OVD | Increase VD | |
| | Excessive OVD | Reduce VD | |
| | Incorrect tooth position (posterior teeth set too far lingually- tongue crowded) | Reset teeth | |
| Clicking | Excessive OVD | Reduce VD | |
| | Ill-fitting dentures | New dentures | |
| | Overextended lower dentures | Reduce peripheral length | |
| **Problems related to esthetic** | | | |
| **Complains/area** | **Causes** | **Treatments** | |
| Fullness under nose | Labial flange of denture too long or too thick | Reduce length or thickness labial flange | |
| Depressed philtrum | Labial flange of mandibular denture too short | Increase length or thickness labial flange | |
| Upper lip sunken in | Max. anterior teeth set too far lingually | Reset anterior teeth labially. | |
| Too much of the teeth are exposed | Excessive OVD | Reduce OVD | |
| | Incisal plane too low | Reset teeth at higher plane | |
| | Cuspids&lateral incisors too prominent | Adjust accordingly | |
| Artificial appearance | Technique setup (teeth are too regular in alignment) | Individualize by rotating shortening some teeth | |
| | All teeth in same shape | Choose different b complimentary shades; u staining techniques | |
| | Lack of individualization of teeth | Grind incisal edges &angles | |
| | Lack of individualization of denture base | Individualize gingival conto & color of denture base. | |
| **Problems related to phonetic** | | | |
| **Complains/area** | **Cause** | **Treatments** | |
| Whistle on "s" sound | Air stream passes unimpeded or with inadequate impedance between the dorsal surface of the tongue &the anterior palate | Increase the palatal res convex contours lingual to t max. central incisors to impe the air stream passing betwe | |

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| | | the tongue &palate. Crea rugae if necessary. |
| Lisp on "s" sound | The air stream passing between the tongue &the anterior palate is excessively impeded, usually by rugae or excessive resin contour | Reduce OVD until premola no longer contact duri speech. |
| Max. &mand. incisors or premolars contact during sibilant (s,sh,z,ch)sounds | OVD too great | Reduce OVD until premola no longer contact duri speech. |
| Clinician observes that incisal edges of max. incisors contact the lower lip 1mm or more labial to the wet/dry junction of lower lip when "f"&"v" sounds are made. | Maxillary teeth may be set too far labially. | Evaluate lip support &over appearance of ant. teeth as th are positioned. Reset to a mo lingual position as neede Incisal edge of maxilla incisors should contact the w dry junction or just lingual to during production of the " &"v" sounds. |

A study done for CD complains, showed that the number of mand. denture requiring adjustment was significantly higher than maxillary dentures in all the post –insertion appointments. Most frequently injured max. areas were PPS area in the soft palate, in the mandible, the most frequently injured areas were retromylohyiod area, the least common locations for maxillary ulcerations were hard palate &mid- palatal suture(0%), then incisive papilla &rugae , then tuberosity, &buccal&labial sulci. The lowest frequency of lesions in the mandible was seen in the sublingual fold(0%), then labial sulcus &mylohyiod region of the lingual sulcus, then buccalfrenum&buccal shelf.

## LIMITATION OF DENTURES:

- Dentures are less efficient than natural teeth.
- Some people can eat all foods easily, but these are the exception.

- Generally the better the ridge form, the fewer problems are encountered. Patients with minimal ridges should be advised that their denture will likely move (especially the mandibular) & their efficiency will therefore be reduced.
- Patients with minimal ridges will likely encounter more sore spots than others.
- It is wise to point out these limitations to patients prior to the delivery appointment so that it is viewed as an explanation, rather than an excuse.

## ADAPTATION TO DENTURES

***Adaptability is affected by :***

1. Length of time wearing dentures
2. Amount of residual ridge remaining.
3. Degree of changes made in new denture.
4. Individual variation (e.g. patients with more acute oral sensory perception have more difficulty adapting).

## Adaptation to chewing may be affected if :

1. CO have been change to coincide to CR.
2. Tooth position (especially incisors) have changed.
3. Vertical dimension has changed.

These patients may experience initial decreased efficiency, cheek or lip biting. Adaptation may be improved by initially eating soft foods increasing to hard foods, cutting food into smaller pieces,& placing food towards the corners of the mouth. Adaptation may be accompanied by an initial, transitory increase in saliva. Patients should be advised of the

need to preserve while their neuromusculature adapts to the new prosthesis.

## Speaking may be affected by changes in :

1. Tooth position (especially incisors).
2. Tongue space (particularly if patients have been without dentures for some time).
3. Palatal contour.

Initial speaking problems are usually transitory, since the tongue is very adaptable- tooth positions must be close at delivery.

## Appearance may be changed in some individuals. These changes are usually due to:

1. Increasing length of incisors.
2. Changes in VD.
3. Improved lip support (not help with wrinkles).