Try-in of the Trial Denture by Dr. Mahmoud Ramadan

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Definition:

Preliminary insertion of complete denture wax up (trial denture) to determine the fit, esthetics, maxillomandibular relations ----etc.

Importance:

It is the last opportunity to evaluate many of the previous steps already accomplished.

It offers an excellent opportunity for patient education and facilitates the patient's acceptance of the finished prosthesis.

Objectives:

1- To check and verify the established maxillomandibular relationship:

A) Verify that centric occlusion and centric relation coincide.

B) Test for the acceptance of the established vertical dimension of occlusion.

2- To determine if the positions of the teeth and the contours of the denture bases are compatible with the surrounding oral environment.

A) To verify the occlusal plane level relative to the ala-tragus plane horizontally.

B) To assess the posterior arch width as it relates to the mandibular residual ridge, modiolus area, and buccal corridor.

3- To verify tooth selection and arrangement for proper esthetics and phonetics.

4- To make additional interocclusal maxillomandibular records if needed for further adjustment of the articulator e.g. protrusive interocclusal record.

The various aspects of the try-in procedure:

- Extraoral examination of the trial dentures.

 \neg Intraoral examination of the trial dentures. Extraoral examination of the trial dentures

1- On the articulators

The mounted case is checked for:

a) Maintaining of the vertical dimension of occlusion

? Top of the incisal pin is flush with the upper member of the articulator.

? The incisal pin is in contact with the incisal table.

b) The mounting rings are firmly screwed in their position

c) Moving of the articulator smoothly from centric to eccentric positions without cuspal interlocking.

d) When the articulator is locked in centric, no other movements are permitted other than simple hinge movement.

e) The trial denture bases lie properly on their casts and the teeth meet evenly in centric.

f) If the case is mounted on the adjustable articulator, the sagittal and lateral condylar guides should coincide with the readings obtained from eccentric jaw relation records. These reading are better registered on the upper cast.

2) The master cast:

As the finished denture is processed on the master cast. So the master cast should be:

A) Has good shape.

B) Free from air bubbles or scratches.

C) Free from wax debris which lead to improper adaptation of the trial denture bases leading to false relationships.D) If there are any undercuts present in the cast, these undercuts should be reviled to avoid scratching the cast by the trial denture bases.

3) The trial denture bases

Check the following:

9 The trial denture bases must be stable.

9 The borders of the trial denture base should be smooth, round, and have no sharp edges.

9 Also the border should be shaped to conform to the depth and width of the sulci.

4) The teeth

1. The dentist responsibility to select the proper shade, and mould of the teeth to determine that the teeth is stetted correctly.

Elimination of the excess wax to avoid the camouflages of the teeth relationships to overlook the occlusion.
 The relation of both upper and lower teeth to the opposing ridges must be checked: if there is excessive anterior tooth contact on the articulator, should be corrected to avoid the excessive forces on the maxillary anterior ridge which causing bone destruction in that area that is already a target for bone loss.
 denture occlusion:

The occlusion of the teeth on the articulator should meet the following in the class I jaw relationship:

 \leftarrow The upper anterior teeth overlap the lower anterior teeth by about 1 – 2 mm, in both horizontal and vertical planes. \leftarrow The mandibular incisors do not protrude beyond the labial vestibule, and should present a curve when viewed from the occlusal surface this curve depends on the shape of the underlying alveolus.

The lower posterior teeth should be set vertically on the ridge (not lingual to not interfere with the tongue), also the central grooves of mandibular posterior teeth should be on the crest of the ridge (better stability).

The posterior end of the occlusal plane should be located at the junction between the middle and the distal thirds
 of the retro molar pad; also the height of the occlusal plane coincides with the line joining the incisal tip of the
 mandibular canine to the retro molar pad.

⇐ Uniformly balanced occlusal contacts between the maxillary and mandibular posterior teeth, and maximum intercuspation between upper and lower posterior teeth when checked from both buccal and lingual aspects. After being satisfied with the case on the articulator:

Intraoral examination of the trial dentures

To reduce the risk of cross- contamination, the trial denture should in a suitable antiseptic solution, washing in running water, before inserted in patient mouth.

1) Checking the trial dentures separately:

a) Trying- in the upper denture.

b) Trying- in the lower denture.

2) Checking the upper and lower dentures together.

Denture base extension:

a) The labial and buccal extension:

? If marked overextension of the flanges, will stretch the sulcus tissues when denture inserted, leading to elastic recoil result in dislodgment of the denture, immediate denture displacement after its seating.

{Examination of the extension}:

Insert of the upper trial denture in its place with light pressure on the occlusal surface, move the check in functional movement. Release of the pressure, the denture will falls down. Need adjustment till little or no movement occurs P Also under extension of the upper trial denture, leading to poor physical retention. Correction will usually entail making a new final impression.

P Provision of the frena {labial and buccal} should be done to ensure that they have adequate clearance and the denture should be thinned and blended in these areas.

b) Posterior extension:

The posterior border of the upper trial denture base should extended from the hamular notch to the other along the vibrating line of the soft palate, and correctly placed on the master cast. If the p.p.s is not done before. It should be done at this stage.

Retention:

It is noted that the retention of the trial denture is less than that of completed denture, due to:

Absence of a posterior palatal seal.

Poor adaptation of the trial denture base to the tissues.

The trial denture should be stay in position when the mouth is opened. Looseness of the upper trial denture make it impossible to carry out an accurate assessment of the occlusion {may use denture fixative} especially, in patients with unfavorable anatomical factors.

How to test the retention of the upper denture?

- Seat the upper trial denture with a firm upward and backward pressure.
- Allow the tissues to settle around the denture
- Grip the labial and lingual surfaces of the upper denture teeth between the thumb and forefinger
- Apply a firm downward vertical pull to dislodge the denture away from the tissues, {if the retention is good,

dislodgment of the trial denture may be difficult}

The shape of the polished surface on the buccal surface should take the form of a gentle concavity to aid denture retention.

Retention contributing factors are:

- ↑ Absence of a border seal resulting from under extension of the denture base.
- ↑ Inadequate width of the flange
- ↑ Ineffective seal at the posterior border
- \uparrow A poor fit of the denture base.

Stability:

It is tested by applying pressure in a tissue ward direction with the ball of the index finger in the premolar and molar regions on each side alternately. This pressure must be directed at right angles to the occlusal surface where displacement does occur.

Causes of instability:

- Warpage of the denture base.
- · Posterior teeth set buccal to the underlying alveolar ridge
- Hard unrelieved area in the midline e.g. torus palatinus.

Orientation of the occlusal plane:

Properly oriented occlusal plane is important to:

- Patient esthetics.
- Patient comfort
- Chewing function
- Balance of occlusion

Orientation of the anterior end of the occlusal plane is determined by esthetics.

The amount of the upper anterior teeth that will be seen during speech and facial expression depends on length and movement of the upper lip. If the upper lip is relatively long, the natural teeth may not be visible when the lip is relaxed or even during speech. The reverse is true. The movement of the lips during function varies considerably among patient thus, when artificial teeth are placed in the same position as the natural teeth, the amount of the upper teeth that will be visible varies for each patient.

The lower lip is better guide for the vertical orientation of the anterior teeth than the upper lip. In most patients, the incisal edges of the natural lower canines and the cusp tips of the lower first premolars are located at the level of the lower lip at the corner of the mouth when the mouth is slightly open. When the lower teeth are above the lip at the corner of the mouth so it may be due to one or a combination of the following conditions:

- a) The plane of occlusion may be too high.
- b) The vertical overlap of the anterior teeth may be excessive.

c) The vertical space between the jaws may be excessive.

The posterior end of the occlusal plane should be at the level of the anterior two thirds of the retro molar pad. The final check of the occlusal plane level is to determine whether the plane of occlusion is appropriate cosmetically for the patient in general

{At rest, during speaking, and smiling}.

Denture base extension:

The lower trial denture extension should be tested with the patient mouth is opened no more than half opened position. To allow the surrounding musculature is in an acceptable state of relaxation.

- · Labial and buccal extensions are checked as for the upper trial denture.
- Lingual extension is checked as follows:

The distolingual area:

Ask the patient to protrude the tongue to moisten the lips. If the denture base lifts at the back so, the lingual pouch is overextended.

The lingual flange area:

Ask the patient to move the tongue to bring the tip of the tongue into contact with the check on each side so, any displacement of the trial denture which arises note the site which extent.

The under extension is determine by the intraoral examination as the depth of the sulcus will be greater than that of the denture flange.

The lingual frenum area:

Ask the patient to curl the tongue backwards to touch the posterior palatal tissues by the tongue tip; if the trial denture lifts in the front, it is overextended.

In all cases the denture flanges should be reduced in depth and / or thickness until displacement no longer arises. Posterior extension:

The lower denture should cover the retro molar pad to buttress the denture against the backward pressure of the lower lip.

Retention:

Usually the lower denture retention is poor when compared to the upper denture due to:

1. Small denture bearing area

2. The difficulty in obtaining an efficient border seal.

Testing of the lower trial denture retention:

a) Ask the patient to open his mouth slightly and let his tongue touch the cingula of the lower anterior teeth, support the chin of the patient with the left hand and pull the teeth straight upwards to check the retention of the anterior labial and lingual flanges.

b) Tilt the lower trial denture outward from the canine region to test the retention of the opposite retro molar pad.

Stability:

Stability of the lower trial denture is checked under occlusal stresses as for upper denture.

Also, observation of the relationship of the tongue to the occlusal surface of the lower denture, the lateral margins of the tongue should be seen to be lying over the occlusal surface of the posterior teeth.

Tongue space:

Natural teeth occupy a position in the mouth where the inward pressure of the lips and the checks is neutralized by an equal and opposite outward pressure of the tongue, and it is in this zone of neutral pressure that the artificial teeth must be set (neutral zone).

N.B. To check for the neutral zone in the patient s mouth, let the patient open his mouth half-way and touch the lower anterior teeth with the tip of his tongue, while his tongue is relaxed. Feel the amount of pressure exerted by the tongue and check on the lower teeth, using a plastic filling instrument. Pressure should be roughly equal on the lingual and buccal sides of the teeth.

Relation between neutral zone and ridge crest:

The crest of the edentulous ridge changes according to the pattern of ridge Resorption, while the position of the neutral zone remains fairly constant. In Case of excessive resorption of the ridge labially, the crest of the ridge may thus moves lingually. Setting of anterior teeth on the crest of the ridge may then interfere with the position of the neutral zone. This result in a sunken lip, Distorted facial appearance and crowing of the tongue.

The back teeth should lie in the neutral zone to avoid check and tongue biting. Naturally the upper posterior teeth overlap the lowers buccally. The upper buccal Cusps push the check away from the occlusal table, while the lower lingual cusps keep the tongue away from the occlusal table.

During chewing, the food lie on the occlusal surfaces of the lower teeth, as the mandible closes, the crushed food escape both to the buccal and lingual. The tongue and the buccinators muscles team up to push the food back onto the food table. If the teeth are too far buccally, the tongue cannot function properly; if the teeth too far lingually, the buccinators cannot function well and the food will pile up in the buccal pouch.

The tongue is more mobile than the checks will cause greater instability of the lower denture.

Lack of tongue space (cramped tongue):

Cramped tongue may be due to:

1. Posterior teeth set lingually to the neutral zone.

2. Posterior teeth tilted lingually

3. Posterior teeth too broad bucco-lingual.

Testing of the tongue space

As the patient to raise the tongue. If the tongue is cramped, the denture will begin to rise immediately. As the tongue moves it tries to expand laterally and whenever the tongue moves the denture will move. While the movement of the denture caused by lingual overextension will not be apparent until the tongue has risen some distance.

Height of the occlusal plane:

(A) (B)

(A) occlusal plane is high in relation to the plane of the tongue.

(B) Corrects height of the occlusal plane in relation to the tongue.

 \downarrow The height of the occlusal plane in relation to the tongue should be noted. Positioning the occlusal plane below the level of the tongue allows the tongue to perform the majority of its movement above the denture and so tends to keep the denture down in place.

 \downarrow When the tongue is relaxed it should rest on the occlusal surfaces of the teeth which will favor the retention of the lower denture

 \downarrow If the plane of occlusion is well above the tongue, the patient may have significant problems shifting food onto the occlusal surfaces of the teeth while eating. This impairs the patient's masticatory efficiency and comfort while eating. The greater the height of the lower denture, the longer will be the lower anterior teeth, so greater the surface exposed to the pressure of the lower lip.

 \downarrow If the occlusal plane is too low, then the tongue will completely overlap the lower teeth and cause tongue biting. To check the height of the lower occlusal plane:

Ask the patient to relax and place the tip of the tongue without undue pressure behind the lower anterior teeth which is the normal relaxed position of the tongue, and then opens his mouth without changing the position of the tongue. The height of the occlusal plane is acceptable when the relaxed tongue is seen to lie on the top of the lingual cusps of posterior teeth.

Checking both upper and lower dentures together

It is usually advisable to insert the lower trial denture first and then the upper because there is less chance of having the upper denture drop down.

A – Evaluation of the vertical dimension of occlusion:

To evaluate the vertical dimension,

The patient should be seated in an upright position.

• The patient head is not supported by the headrest (the headrest may effect the physiologic rest position of the mandible so, it effect the amount of interocclusal distance).

A combination of methods to evaluate the vertical dimension of occlusion would likely give a more accurate evaluation after the artificial teeth have been arranged.

Some of these measures include:

– Facial measurements

- Phonetics
- Esthetics
- \neg patient's proprioception

a - Facial measurement:

Instruct the patient to wet his lips, swallow, and then allow his mandible to rest. While the patient is in resting position, part his lips to see whether his teeth are touching, or there is adequate space between his teeth.

N.B before parting the lips caution the patient not to move any part of his mouth or jaw

If the teeth are in contact while the mandible is at rest, the vertical dimension of occlusion is high and need a new record of vertical dimension of occlusion.

B – Phonetics:

It is difficult to locate speech problems at the try-in stage because the tongue and lips do not react the same with the

wax as they do with the finished and polished denture base. But to accept the correct vertical dimension, the patient should put through a series of phonetic test.

1 - Evaluation of the "closest speaking space":

Ask the patient to say s,s,s or count from 50 to 60

E If the teeth make contact during speech, indicate that there is not enough interocclusal distance between the teeth. E If there is whistling during saying sss, so the vertical dimension of occlusion may need to be increased or the position of the anterior teeth changed.

E If the anterior or posterior teeth contact during speech, the vertical dimension of occlusion needs to be decreased. 2 – Instruct the patient to pronounce "j" "ch"

□ Because these sounds used as guides to the adequacy of the horizontal and the vertical overlap of the anterior teeth.

□ If there was inadequate space, the mandibular teeth might clash with the maxillary teeth.

3 - Instruct the patient to say "th"

{The tongue should protrude to occupy the interocclusal space}

 ϕ If the interocclusal space is less than 2 – 4 mm the anterior teeth may be placed too far anteriorly or the vertical overlap may be so great that there is insufficient space for the tongue to protrude between the teeth.

4 - Instruct the patient to pronounce "m" rapidly

The mandible should remain stationary while the lips contact each other to make sound.

5 - Instruct the patient to say "f" or "v"

To evaluate both the anterior – posterior and superior – inferior position of the maxillary teeth.

If the incisal edges of the upper anterior teeth contact the lingual side of the lower lip, so the upper anterior teeth are set too far lingually or the lower anteriors are set too far labially.

Construct between the lower lip and upper teeth usually indicates that the maxillary anteriors must be moved downward.

⇐ The upper teeth are placed too far inferiorly if the incisal edges depress the lower lip when the "f" and "v" sounds are formed.

6 – Instruct the patient to pronounce "t" and "d"

These sounds are farmed by contact of the tip of the tongue with the anterior palate and lingual surfaces of the upper anterior teeth.

 ϕ If the upper teeth are placed too far lingually the "t" will tend to sound like a "d".

 ϕ If the teeth are set too far labially, the "d" will sound like "t".

 ϕ There is over opening or over closing which will need to be corrected by determination of a new vertical dimension. C – Esthetics:

Facial form is an important guided to whether the patient is at the correct vertical dimension of occlusion

 \geq If the appearance of the patient from the front face and the lateral view when the mouth is closed is like an old man (approximation of the nose and the chin) this indicated low vertical dimension.

 \geq If the patient appear with his facial muscles are stretched, this indicated that there is high vertical dimension.

D – Patient's proprioception:

Ask the patient:

' If he has the feeling that the teeth touch before his jaws are closed far enough, this indicate high vertical dimension.

' If he feels that he closed too far before the teeth touch, this indicate low vertical dimension.

' If he feels that the teeth touch at about the right moment this means that it has correct vertical dimension. Correction of the vertical dimension of occlusion:

If the interocclusal distance is too large it may be corrected by adding appropriate thickness of wax to the occlusal surfaces of the posterior teeth of the lower denture, (adjusting the wax to produce an even occlusion at the desired occlusal face height and then recording the jaw relationship in centric relation).

If the interocclusal distance is too small or absent, posterior teeth will be removed from one of the trial dentures, and replaced with a new wax occlusion rim before a new record is made. However note should be taken of the relation between the upper and the lower anterior teeth, if it reached a point which prevent more closure, so the anterior teeth should be removed from the lower trial denture and replaced with wax occlusion rim {occlusal plane should be examined, if it is correct all alterations should be done on the lower occlusal plane, if it is not correct so a new one is made}. The wax occlusion rim is trimmed to occlude with the opposing teeth at the new vertical dimension.

Procedures:

 \rightarrow The trial dentures are inserted in the patient mouth; adjust the occlusion rim until the patient closes the mouth to bring the upper posterior teeth into contact with the occlusion rim on the lower trial denture in the centric jaw relation. When the new position of occlusion is achieved, adding softens wax to the occlusion rim and the patient is asked to close back in the correct centric position.

 \rightarrow After making the new registration, the lower cast is detached from the articulator and is remounted on the articulator by means of the new centric record.

N.B. if the case is mounted on an adjustable articulator with a kinematic face-bow, it may be possible to open or close the vertical dimension 1 - 2 mm on the articulator without taking new records from the patient, since such changes of vertical dimension occurring in the patient may be considered as a simple hinge-type movement

B – Evaluation of the centric occlusion position

/ If the maxillomandibular relation wax correctly recorded, the teeth should interdigitate in the mouth in exactly the same manner as they do on the articulator, when both condyles occupy their most posterior functionally unstrained position in the glenoid cavity.

/ If the opposing cusps fail to interdigitate, when the denture is inserted in the mouth, this will indicate that the previous centric jaw relationship record wax incorrect. In such a circumstance a new centric jaw relationship record will have to be recorded.

To check the centric occluding relation:

Ask the relaxed patient to touch the posterior edge of the upper denture base with the tip of his tongue and slowly close the teeth together.

This procedure puts the jaws in centric relation.

The lower trial denture can be stabilized in its place by placing the index fingers of both hands on the trial denture Flanges in the premolars region, while the thumbs are held gently under the lower border of the mandible. When the jaws are in centric relation, the teeth should interdigitate accurately and each cusp should be situated in its corresponding fossa. The tip of the cusp should meet the deepest part of its corresponding fossa. But the initial contact between teeth is cusp incline to cusp incline, an anteroposterior shift of the mandible or denture is affected. This means that the centric relation of the jaws is not in harmony with centric occlusion of the teeth.

If there will be an anteroposterior shift of the mandible or denture and the teeth seem to occlude properly. This is misleading and may get one of these possibilities:

 α The mandible will be shifted forwards or laterally out of centric relation position and the teeth occlude in centric occlusion. Here centric occlusion does not coincide with centric relation.

 α The lower denture will be shifted out of its place, while the mandible remains in centric relation. This is a wrong centric occlusion.

 α Anterior displacement of dentures is more likely to occur with the lower denture, as its retention is poor compared with that of the upper denture.

 α Both upper and lower dentures are shifted out of their places, while the jaws remain in centric relation. In this case the teeth are in centric occlusion, but the dentures are not properly seated on their supporting area. This is a wrong recording of centric occluding relation.

Correction of centric occlusion / relation disharmony

When errors of occlusion are noted at the try-in stage. A new recording of centric relation position should be obtained after the teeth from one of the dentures have been removed and replaced with a wax occlusion rim.

] If the teeth are not removed there is a danger that the cusps will guide the mandible back into an incorrect tooth position.

Before carrying out any modifications in the trial dentures the dentist should determine first whether or not the occlusal plane of the upper trial denture is correct.

] If it is, the alterations will be carried out on the lower trial denture. If the plane is not correct, the upper trial denture

will have to be modified by resetting the anterior teeth or replacing the teeth with a wax occlusion rim. Procedures:

- The trial dentures are returned to the articulator and all the posterior teeth from one of the dentures are removed and replaced by a new wax occlusion rim which should be trimmed to occlude with opposing posterior teeth without altering the original vertical dimension as set on the articulator.

- The trial dentures are then placed in the mouth and the patient is asked to close them together, thus, impressing the cusps of the opposing teeth into the soft wax.

- When correcting a lateral swing, care must be taken to ensure that the lower anterior teeth do not impinge on the upper anterior teeth, as this may cause the mandible to be guided into incorrect position, or the dentures to tilt.

- If any contact of the anterior teeth occurs the offending lower anterior teeth should be removed and the position is retaken.

- After making the new centric registration, the lower cast is detached from the articulator and is remounted with the new centric relation record.

- Dentures should then be checked at a subsequent visit of the patient for trying-in the dentures before processing them.

C - Evenness of occlusal pressure

P As the teeth come together, they should occlude evenly with equally distributed pressure all a round.

P However, local compression of the tissues creates the appearance of apparent equilibration of tooth contacts when they may not in fact exist.

Factors contributing to uneven occlusal pressure:

Unevenness of occlusal pressure may result from any of the following factors:

1- Unequal pressure on the record blocks during registration of the maxillomandibular relations.

2 – Errors in seating the record blocks on their respective master cast due to:

 \otimes Warpage of the record bases.

 \otimes Presence of wax debris on the master casts preventing proper seating of the record bases.

 \otimes The record bases are touching at the casts heals preventing the teeth from coming into occlusion.

3 – Errors in mounting the master cast on the articulator due to the presence of interference at their posterior region.

Such irregularity of occlusal pressure may not notice at the try – in stage according whether it is slight or considerable. If the denture is processed as such, the teeth will be held apart at the area of heavy pressure, this will require excessive grinding to equalize the uneven pressure.

Testing the evenness of occlusal pressure:

Several tests have been suggested to verify the evenness of occlusal pressure such as:

9 Place two pieces of thin celluloid strips between the posterior teeth on each side, ask the patient to close firmly and then try to pull the strips, any difference in the force required to remove the strips is interpreted in terms of difference in occlusal pressure.

9 Stabilize the upper and lower dentures with the thumb and index fingers of both hands. Request the patient to close gently and slowly, and to stop closing at the first tooth contact. Try to see the first contact and feel the dentures rise from their basal seats.

9 Gross error in recording the occlusal position may be tested by inserting the blade of the wax knife between the occluding surfaces of the upper and lower posterior teeth on both sides.

9 Excessive pressure in the molar region may be tested by inserting the point of a wax knife between the upper and lower incisor teeth and attempting to push the upper trial denture upwards and the lower trial denture down. This test will reveal whether the front part of the denture is rising slightly from the ridges when the posterior teeth are occluding.

Correction of unevenness of occlusal pressure:

If the error is slight:

K Gently soften the wax supporting the teeth of one denture on the offending side (heavy pressure side).

K Insert the trial dentures in the patient mouth, and hold the lower denture firmly in place.

K Ask the patient to close. The teeth on the side of heavy-pressure will sink slightly into the softened wax until the occlusion on the opposite side arrests them, thus equalizes the occlusal pressure.

K The trial dentures sent directly to the processing procedure without putting on the articulator. This method has the disadvantage that it will be difficult to carry out laboratory remounting and selective grinding.

If the error is gross

(A layer of softened wax is added between the occlusal surfaces of the teeth on the side of light or no occlusal contact and the patient is asked to close until the teeth on the opposite side will stop them, equalizing the occlusal pressure. This is followed by remounting of the lower cast and correcting the occlusion on the articulator. Or (The posterior teeth are removed from one denture and are replaced by a wax occlusion rim which should be trimmed to occlude with the opposing posterior teeth without altering the original vertical dimension of occlusion as set on the articulator. Then a new record of the retruded contact position is taken and the lower cast is remounted on the articulator for correction of the occlusal discrepancy.

D - Evaluation of esthetics:

One of the main objectives in complete denture prosthodontics is to produce a harmonious appearance of the denture when view the patient from the front face and lateral view when the mouth is closed and also in a half open position. To evaluate the teeth while the patient rests, speaks, and smiles. This assessment is important because dentures which have pleasant appearance may suddenly become unsuitable if the patient moves his lips during function.

To achieve the best esthetic results certain aspects of appearance have to be checked as a routine: The midline:

The midline of the upper and lower trial dentures is evaluated in relation to the midline of the patient's face. If it is incorrect, the upper and lower teeth will have to reset to correct it.

Smile line:

The incisal edges of the maxillary anterior, and premolars should form a smile line which is consistent with the age, sex, and personality of the patient. This curvature tends to decrease with age, and also tends to be flatter in men than in woman. When the patient's smiles, the maxillary teeth should just touch the lower lip and should follow its curvature. The reverse smile line or curvature should always avoid.

Corners of the maxillary arch:

• The maxillary canines should be located at the corners of the mouth.

• A buccal corridor should be evident between the teeth and the cheek.

• The patient must not exhibit an ear to ear smile.

Verify tooth selection:

7 The appearance of the denture includes the shade, mould, and size of the teeth, the orientation and level of the occlusal plane and hence, the amount of the tooth visible and the degree of lip support.

7 If the shade and arrangement appear unnaturally uniform, mixing shades and moulds may be indicated.

7 In some patients the upper labial flange will be visible during speech and smiling. In this case, a natural appearance will be achieved when the acrylic flange is contoured to resemble natural gum and the acrylic flange is slightly irregular or stippled to break up any reflections.

7 The upper portion of the labial flange should be thin, because an actual vestibule does not usually exist at the mucobuccal fold.

Regularity of anterior teeth:

The anterior teeth should not be placed so that the incisal edges are all at the same level.

Some form of crowding should be usually present in the arrangement of the anterior teeth. This may be varying from minimum irregularity to marked overlapping of the teeth.

Create the final appearance by detailed arrangement of the anterior teeth, shaping the gingival margins and, where necessary grinding the incisal edges.