



# **DIAGNOSIS AND TREATMENT PLANNING FOR COMPLETE DENTURE PATIENTS**

## **PART – I I**

To learn how to treat a disease one must  
learn to diagnose,  
The diagnosis is the best trump in the  
scheme of treatment.

-Charcot



# DIAGNOSTIC AIDS

- ✓ **DIAGNOSTIC CASTS**
- ✓ **RADIOGRAPHS**
- ✓ **PHOTOGRAPHS**
- ✓ **PRESENT PROSTHESIS**
- ✓ **ADVANCED DIAGNOSTIC AIDS**



# PRE-EXTRACTION RECORDS

- ❑ Photographs showing natural teeth.
- ❑ Old radiographs.
- ❑ Diagnostic casts
- ❑ Radiographs obtained from other dentist.



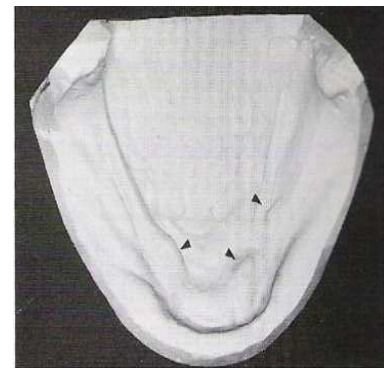
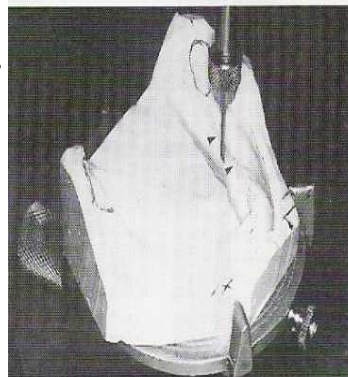
# DIAGNOSTIC CAST

- ❑ Better visualization of intraoral structures
- ❑ Act as pre extraction record, help in choosing size and shape of artificial teeth.
- ❑ Mounted casts - vertical dimension of occlusion.
- ❑ Aids in assessment of individual tooth before making decision of extraction.



# DIAGNOSTIC CAST

- Ridge relationship
- Diagnose missed findings
- Confirm clinical findings
- Measuring & determining relation to other structures
- Decision about preprosthetic surgery
- Undercut surveying.



# RADIOGRAPHIC EXAMINATION

- Panoramic radiographs are faster, have reduced patient exposure & images the entire maxilla & mandible.
- Panoramic radiographs aid in documenting the amount of ridge resorption.
- A panoramic radiograph should be advised routinely, and selective occlusal, periapical views should be used as adjunctive.



○ Pathologic Conditions In Edentulous Jaws Can Be Found In 34 To 37% Of Cases,

- Retained roots are most common
- Unerupted tooth, foreign bodies
- Inflammatory or neoplastic abnormalities
- Bone support of remaining teeth.
- Anatomical landmarks - maxillary tuberosity, genial tubercle, mental foramen etc.
- Condition of bone - density, surface texture



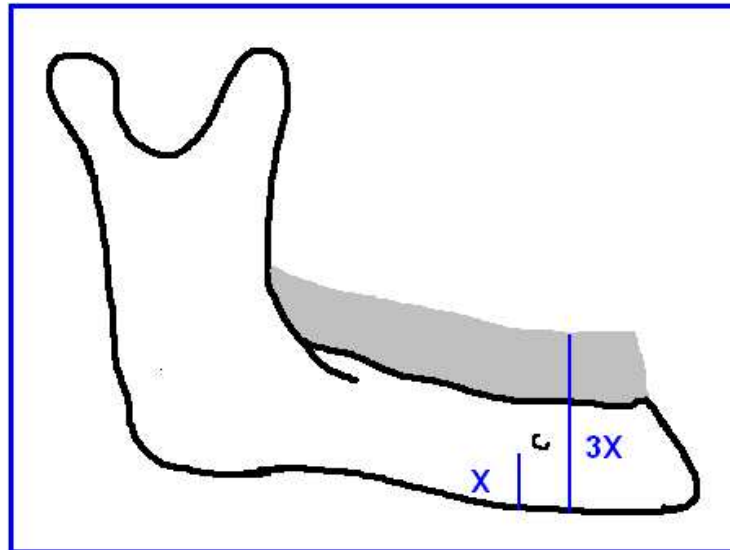
# INTERPRETATION OF OPG

## 5 step analysis(by Chomenco)

1. Screen jaws for defects in structures and reactive new bone formation, bone enlargement and displacement of jaw parts
2. Describe appearance of the lesion, as well as bony changes adjoining the lesion
3. Correlate the radiographic findings with clinical, historical and lab findings
4. Perform a differential diagnosis
5. Estimate the growth of the lesion by the appearance of the jaw structures bordering the lesion.

# WICAL AND SWOOPE ANALYSIS

- Actual bone height can be measured with a radiograph of mandible.
- Original bone height is three times the distance from lower border of mandible and inferior margin of mental foramen.



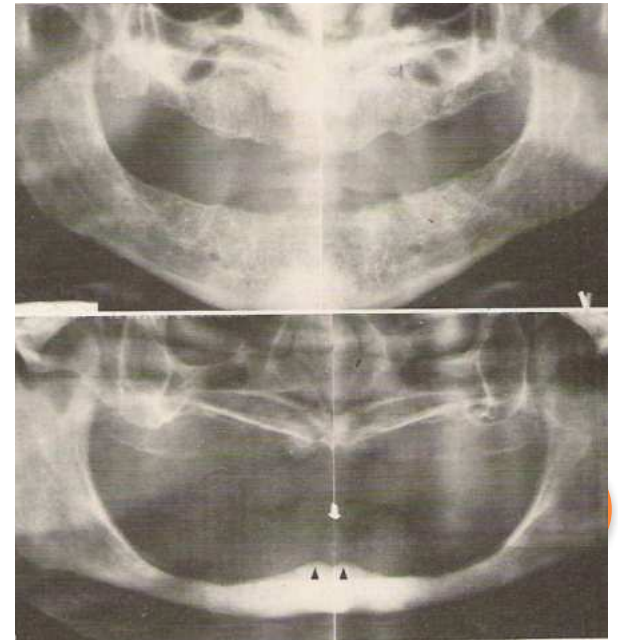
# RADIOGRAPHS

Wical and Swoop analysis—

**Class I-** Upto  $1/3^{\text{rd}}$  of original vertical height lost

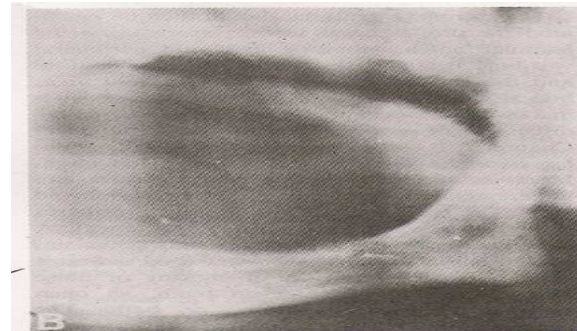
**Class II-**  $1/3^{\text{rd}}$  to  $2/3^{\text{rd}}$  of original vertical height lost.

**Class III-**  $2/3^{\text{rd}}$  or more original  
vertical height lost.



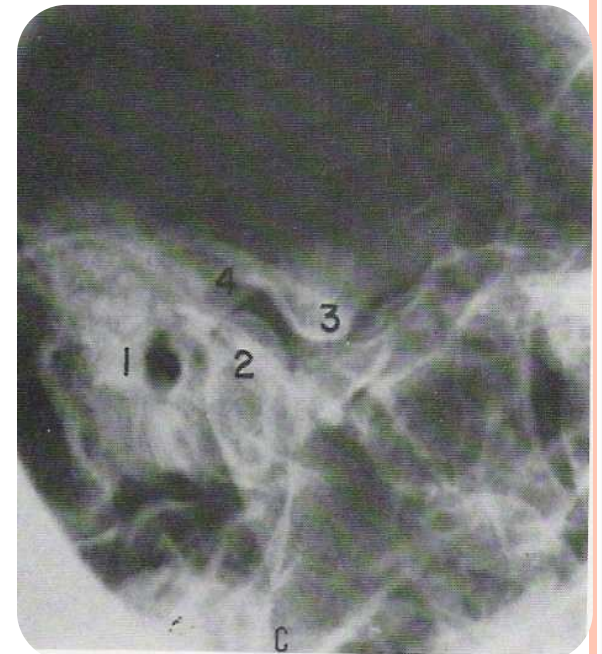
## Radiographic examination of the bone density by Misch.

- ❑ Dense cortical bone .
- ❑ Porous cortical bone.
- ❑ Coarse trabacular bone.
- ❑ Fine trabacular bone.



# RADIOGRAPHIC EXAMINATION TMJ

- Panoramic projection- bilateral view of condyle & fossa relation, oblique, posterior ,anterior view of the joint .
- Transcranial projection-lateral view of TMJ.
- Transorbital projection-medial & lateral surface.
- Submentovertex view-surface of condyles



# PHOTOGRAPHS

- ❑ Acts as a guide for harmonization of the denture with facial features of the patient.
- ❑ To select size, shape, color shade of artificial teeth.
- ❑ Characterize the arrangement of teeth.
- ❑ Establish lip support and contour.



# ADVANCED DIAGNOSTIC AIDS

- CT scan
- Magnetic resonance imaging
- Ultra sound probe
- Modified radiographs
- Bone densitometer



# OTHER INVESTIGATIVE PROCEDURES

- To Rule Out DM
  - RBS
  - FBS
  - PPBS
- Patient's BP should be recorded.
- BT,CT
- Hb gm%.
- If any Intra or Extra Oral lesion advise for Biopsy  
Histopathological Examination .



# TREATMENT PLANNING

Treatment planning



developing a course of action that encompasses the ramifications & sequelae of treatment to serve the patients need.

- Treatment planning is defined as the sequence of procedures planned for the treatment of a patient after diagnosis( GPT 8)

# TREATMENT PLANNING

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# TREATMENT PLAN

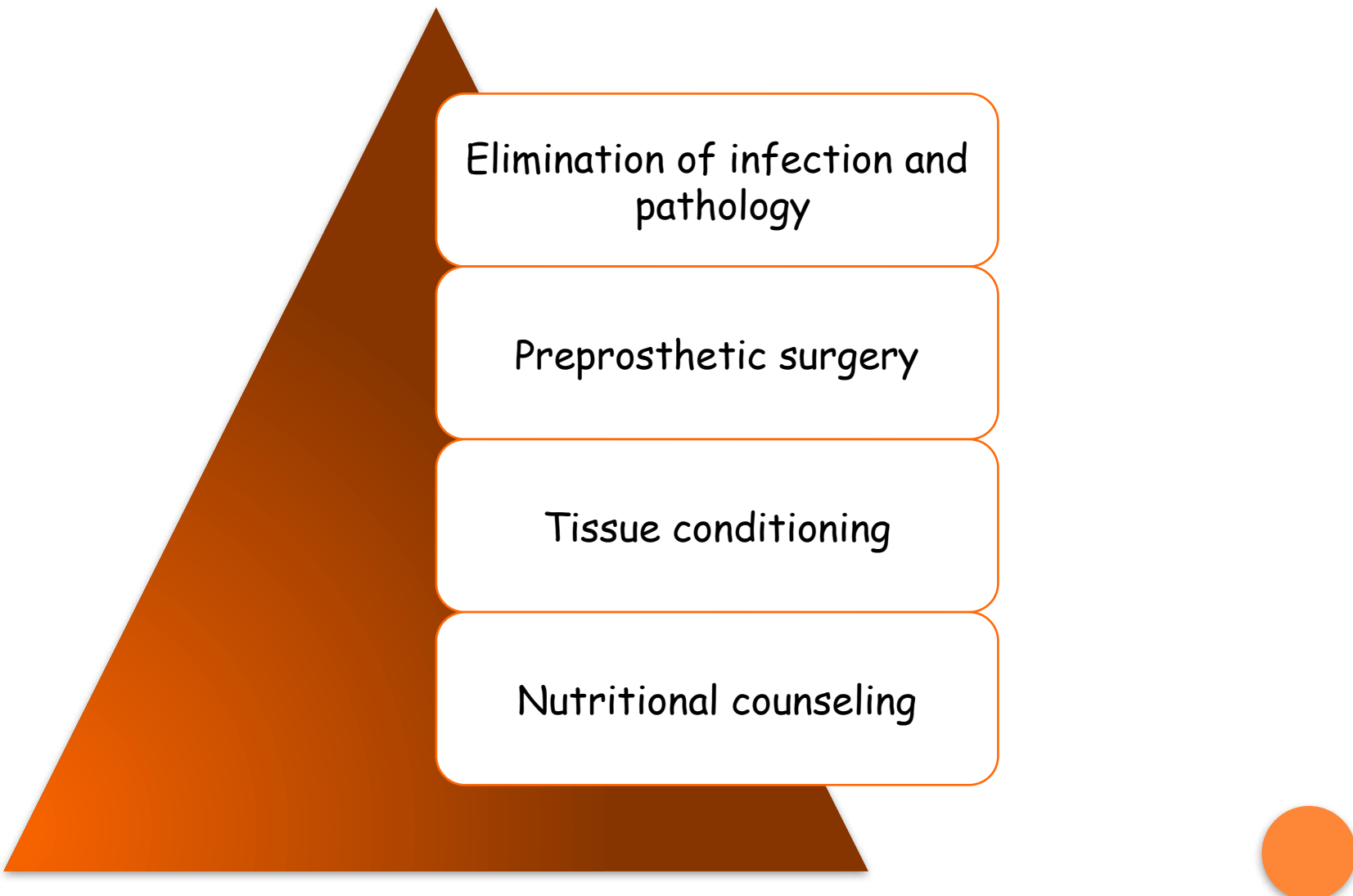
The treatment plan should specify regarding

- The treatment procedures
- Operating time
- Laboratory time
- Calendar time
- Fees

such that patient informed consent regarding the same can be  
obtained.



# ADJUNCTIVE CARE



Elimination of infection and pathology

Preprosthetic surgery

Tissue conditioning

Nutritional counseling

## Patient education:

- Information about their dental health & its effect on the treatment outcome.
- Limitation of complete denture.
- Problems associated with complete denture initially.
- Importance of oral & denture hygiene.
- Need for regular check up.
- Motivation of the patient.

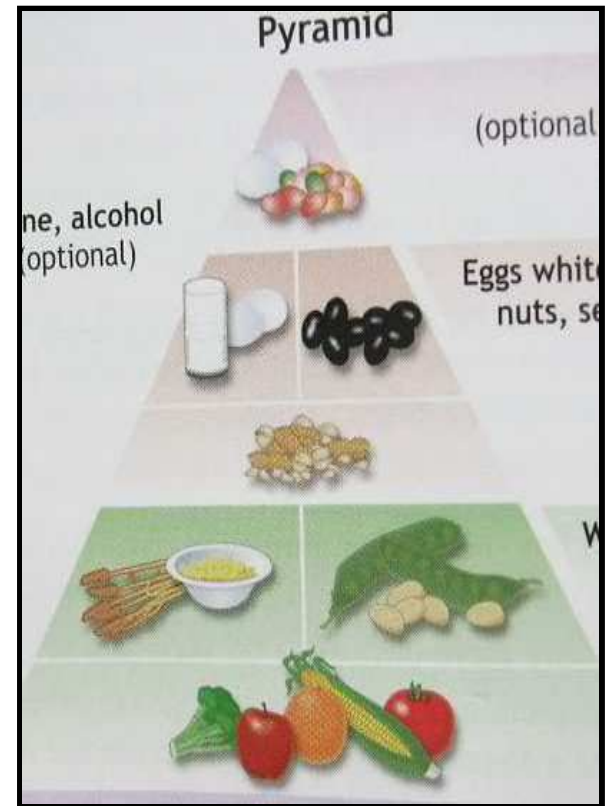


# STRATEGY FOR DIETARY SCREENING & MANAGEMENT IN DENTAL OFFICE

- **STEP 1-** determine dental, medical, personal & social history.
- **STEP 2-** observation for clinical signs of malnutrition-  
**Symptoms-** anorexia, abdominal discomfort, confusion, dyspepsia, insomnia, muscle pain, palpitations, increased susceptibility to infection.
- **STEP 3-** dietary history & evaluation.
- **STEP 4-** dietary diagnosis
- **STEP 5-** provide dietary guidelines.



- Variety of foods from the 4 food groups should be advised to combine at each meal.
- **Vegetable-fruit group**
- **Bread-cereal group- whole grain enriched flour products**
- **Milk-cheese group**
- **Meat, poultry, fish & bean group**
- Maintaining of ideal body weight.
- Avoid fat, saturated fat & cholesterol.



- **Diet counseling:**
- Diet rich in proteins, calcium, vitamins, minerals, low calorie diet.
- If required referred to dietician.



# NON SURGICAL METHODS OF TREATING THE ABUSED TISSUES

- ❑ Resting the denture supporting tissues.
- ❑ Regular massaging.
- ❑ Occlusal correction , establishing vertical height
- ❑ Refitting the dentures.
- ❑ Drugs to eliminate infection.
- ❑ Nutritional supplements.
- ❑ Advise for jaw exercise.



# SURGICAL METHOD

Correction of hyperplastic ridge tissue ,epulis fissuratum, papillomatosis ,hyperplastic pendulous tuberosity.

- no response to nonsurgical treatment procedures.
- interferes with stability .

Advise:

- Electro surgery.
- Excision of the tissues .



# FRENAL ATTACHMENTS

- ❑ Maxillary labial frenum( broad fibrous band)
- ❑ Lingual tongue tie
- ❑ Prominent buccal freni near to crest of ridge.

Treatment advised:

Frenectomy.

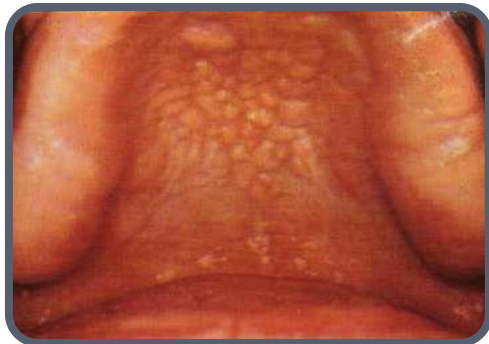


# HYPERPLASTIC TISSUE

**Epulis Fissuratum** (denture border),

**Papillary Hyperplasia** (under the denture base).

- Tissue rest, proper oral hygiene & tissue massage.
- Refitting of the existing dentures with tissue conditioners .
- If improvement does not occur-surgical correction



# Papillary Hyperplasia

a) Small lesion with sharp currettes:

sharp currettes, micro-abrasion  
electrosurgery.



b) Large lesion:

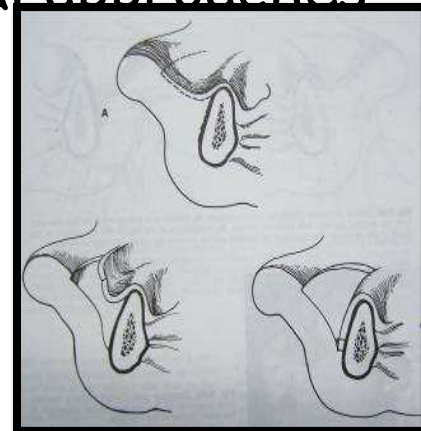
split thickness suprapariosteal flap



# Vestibuloplasty

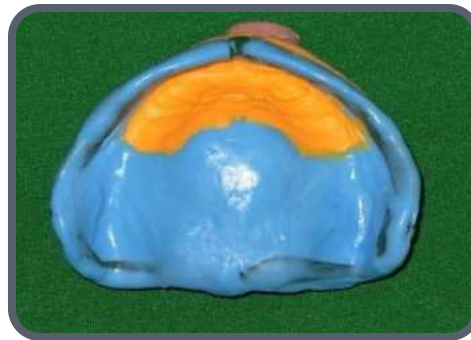
Surgical procedure designed to restore the alveolar ridge height and/or width by lowering the muscles attachments & attached mucosa.

Considered only when other non surgical approaches have been exhausted.



# FLABBY TISSUE

- Proper relief is to be provided.
- Alteration in impression materials and methods
- Tissue rest
- If very large and movable: surgical correction



**William Filler Technique**



**Zafrulla Khan Technique**

# OSSEOUS ABNORMALITIES

- Ridge undercuts.
- Prominent mylohyoid & Internal oblique ridge
- Prominent genial tubercle
- Residual ridge( sharp, spiny).
- Torus palatinus.
- Torus mandibularis.
- Discrepancies in jaw size.
- Ridge augmentation.



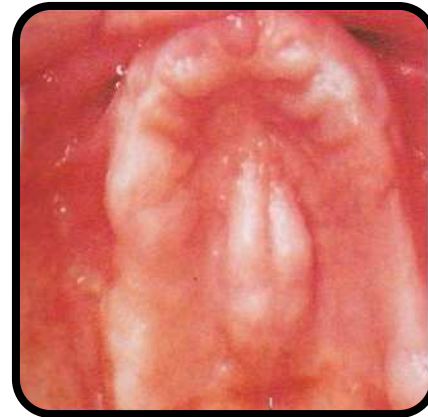
# TORUS PALATINUS

Bony enlargement at the midline of the hard palate.

Covered by thin less resilient tissue

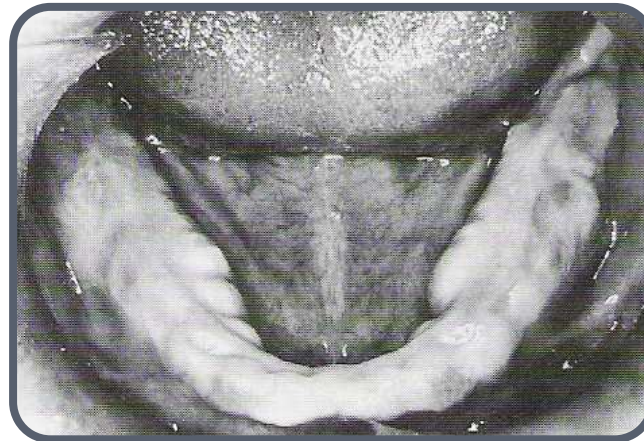
Surgical removal advised if-

- ❖ extend on PPS
- ❖ Interferes with speech
- ❖ Problem in stability due to fulcrum effect on dentures.



# TORUS MANDIBULARIS

Bony protuberance on lingual aspect of the mandible in the premolar region.



Surgical correction advised when it interferes with lingual seal.



# PROSTHODONTIC CARE

- Type of prosthesis
- Denture base material
- Tooth material
- Tooth shade/shape

Should be decided as a part of treatment planning.



# TYPE OF PROSTHESIS

- Conventional complete denture.
- Implant supported.
  - Previous h/o failures with conventional complete dentures
  - Good health, affordable.
  - Patient with compromised motor skills, residual ridge resorption.
  - Patient desire.



# HOW TO CARE FOR DENTURE

- 1- Denture should be kept clean
- 2- Denture shouldn't clean in boiling water → to avoid distortion of base.
- 3- Denture should be hold above a container of water during cleaning → to act as a cushion.
- 4- Denture should be clean after each meal using a brush & Dentifrice → not abrasive powder.



6- Denture should be removed at least 8 hours each 24hour for the reasons:

Pressure can interrupt blood supply → Bone resorption.

Continuous pressure → soft tissue damage → loose denture.

Best time during sleeping to aid in tissue& muscle relaxation.

7- When soreness occur → Pt. should return for examination → Soft liners are a temporary solution& cause an immediate relief.


8- Return to the dentist when denture become loose.



## SUMMARY

- History includes dental & medical history, expectation & the mental attitude of the patients
- Diagnosis involves examination right from patient enters the clinic, from the collection of personnel information and extra & intra oral hard & soft tissue examination.

**Diagnosis form the first important milestones for the successful accomplishment & favorable prognosis as the potential problems are identified & accordingly treatment plan is framed.**



# CONCLUSION

**"Treatment plan** is not scientific truth, but wisdom, the plan that a prudent clinician would develop to maximize benefit to the patient from the treatment procedures compared to both cost and risk.  
And **Diagnosis** is the source of that wisdom."



Spend more time in planning than doing,  
So that doing becomes easy.

-P.K. Thomas



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