Diagnosis & treatment planning for Removable Partial Denture
To achieve these goals the dentist should **collect data** from the patient.

- **How to collect data?**
  - History taking
  - Examination
Diagnosis

Covert Examination

History

Definitive Examination

Patient interview

Personal History

Mental Attitude

Medical History

Dental History

Clinical Examination

Extra Oral

Oral

Radiographic Evaluation

Study Casts
Personal data

- Name, age, sex, occupation, address, and telephone number

Positive identification and communication
philosophic

Exacting

Hysterical

Indifferent

Mental attitude
Philosophical Patients (Truth-seeking)

Best mental attitude -- Calm

Good prognosis

Exacting Patients (Demanding)

Good as philosophical - needs great care, effort & explanations -

Good prognosis
**Hysterical Patients** (Panic-stricken)

Unstable - Excitable

Poor prognosis

**Indifferent Patients** (Uncaring, cool)

Uninterested - depressed -
no cooperation -
unfavorable prognosis
## Medical history

<table>
<thead>
<tr>
<th>Some dangerous transmissible diseases</th>
<th>Some systemic diseases might affect the outline of treatment</th>
<th>Some other transmissible diseases but not dangerous</th>
<th>Some drugs might affect the outline of treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Jaundice</td>
<td>1) Cardiac patients</td>
<td>1) Influenza</td>
<td>1) Anticoagulants</td>
</tr>
<tr>
<td>2) AIDS</td>
<td>2) Diabetes</td>
<td>2) Rhinitis</td>
<td>2) Dilantin Na</td>
</tr>
<tr>
<td>3) TB</td>
<td>3) Osteoporosis</td>
<td>3) Bronchitis</td>
<td>3) Meduretics</td>
</tr>
<tr>
<td></td>
<td>4) Osteo-arthritis</td>
<td></td>
<td>4) Antihypertensive drugs</td>
</tr>
<tr>
<td></td>
<td>5) Hormonal disorder</td>
<td></td>
<td>5) Endocrine therapy</td>
</tr>
<tr>
<td></td>
<td>6) Neurologic disorder</td>
<td></td>
<td>6) Saliva inhibiting drugs</td>
</tr>
<tr>
<td></td>
<td>7) Skin disease</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Medical history:
- Jaundice
- AIDS
- TB

### Systemic diseases:
- Cardiac patients
- Diabetes
- Osteoporosis
- Osteo-arthritis
- Hormonal disorder
- Neurologic disorder
- Skin disease

### Other transmissible diseases:
- Influenza
- Rhinitis
- Bronchitis

### Drugs:
- Anticoagulants
- Dilantin Na
- Meduretics
- Antihypertensive drugs
- Endocrine therapy
- Saliva inhibiting drugs
Dental history

History about loss of teeth:
1-Reasons for extraction
2-Length of time since extraction.
3-Sequence of teeth extraction.
4-Diet & methods of home care.
5- Presence of any Para functional habits.
Denture history

1- **Age** of present denture & dentist evaluation to determine its suitability.

2- **Number** of previous dentures & degree of patient satisfaction.

3- **Evaluation** of present denture.

4- **Reasons** for requesting a new denture.
Clinical Examination

1. Extra-oral examination
2. Intra-oral examination
Extra-oral examination

1. Size of face.

2. Form & contour of face. (ovoid, rectangular, tapered)

3. Face color & symmetry.

4. Profile (class I, II, III)
5. Facial muscle tone, tense or flaccid.


7. TMJ examination to detect any abnormalities in jaw relation records.
1- Remaining natural teeth:

A- number & distribution
B- condition of teeth.

1. Caries involvement:
B- condition of teeth.

2. Existing restorations:
B- condition of teeth.

3. Periodontal involvement:

   1. Gingival inflammation
   2. Depth of periodontal pocket
   3. Degree of gingival recession
4. **Mobility of teeth**: may be due to:
   
i) Trauma from occlusion
   
   ii) Inflammatory changes
   
   iii) Loss alveolar bone support
B- condition of teeth.

5. Evaluation of the pulp:

**Electric & thermal pulp testing** should be used to assess the vitality the remaining teeth either normal, necrosed or pulpitis.
B- condition of teeth.
Evaluation of sensitivity to percussion:

All remaining teeth are tested for sensitivity to percussion:
- tooth movement by prosthesis or occlusion
- traumatic occlusion
- periapical or pulpal abscess
- acute pulpitis
- gingivitis or periodontitis
- cracked tooth syndrome
2-The condition of the edentulous area:

1. The form of the edentulous ridge:

2. Oral mucosa:

3. Shape of the vault:
3-Soft & hard tissue abnormalities:

Soft tissue

*Squamous cell carcinoma*

*Candidacies*
3-Soft & hard tissue abnormalities:

**Hard tissue:**

1. Torus palatinus
2. Torus mandibularis
3. Bony Exostoses
4. Bony undercut
4 - Tissue reaction to wearing a previous prosthesis

1. Palatal papillary hyperplasia
2. Epulis fissuratum
3. Denture stomatitis
5-Evaluation of the quantity & quality of saliva

6- The tongue:
Size & mobility are evaluated. Large tongue with excessive mobility causes great displacing force to RPD.
7- Occlusion of the natural teeth (static teeth relation):

a) *Minor* occlusal discrepancy:
   - **Deflective occlusal contact:**
     centric occlusion is not in the same position as the centric relation.
   - **Premature occlusal contact:**
7- Occlusion of the natural teeth (static teeth relation):

b) *Gross* occlusal discrepancy:

The occlusal plane is not uniform due to over eruption of teeth opposite to the edentulous space.
7- Occlusion of the natural teeth (static teeth relation):

c) Loss of occlusal stops:

the mandible closes as if the jaws are edentulous.
If there is **good balance** of teeth during **centric & excursion** movement, the artificial teeth should be set following this pattern by using **adjustable articulator & face bow transfer** to be in balance with the natural teeth.
9- Space for mandibular major connector:

If **8 mm** space is available from the free gingival margin to the position of elevated floor of mouth, **lingual bar** can be used, or you will have to use a **lingual plate**.
Evaluation of radiographic survey

- Periapical radiographs:
- Bite-wing radiographs:
- Panoramic radiographs:
The radiographic finding

- The presence of hidden caries
- The relation of the carious lesions to the dental pulp.
- Existing restorations are evaluated to determine their accuracy.
- Root fragment, foreign bodies & unerupted third molars are evaluated.
- Root canal fillings are evaluated.
Radiographic evaluation of prospective abutment teeth

1. Root length, size & form:

2. Crown/ root ratio:

3. Lamina Dura:

4. Periodontal ligament space
Radiographic evaluation of prospective abutment teeth

5. Bone index areas:

Positive bone factor
- Normal bone height
- Regular trabecular pattern
- Heavy cortical layer

Negative bone factor
- Loss of lamina dura
- Loss of bone height
- Thin cortical layer
- Irregular trabecular pattern.
Evaluation of study casts
Purpose for which the study cast are used:

1. Aid in **planning the design**.
2. To supplement the oral examination by permitting the **view from all directions**.
3. To permit **primary survey** of the study casts.
4. Used to fabricate **special tray**.
5. Used as a constant **reference** as the work progress.
6. **Patient education**.
Purpose for which the study cast are used:

7. As a permanent part of patient record
8. Mounted diagnostic casts can provide important information that may be difficult to obtain by intraoral examination alone as:
   i) Insufficient interarch distance
   ii) Irregular occlusal plane
   iii) Loss of occlusal stops
Prescribing the prosthetic service

There are different prosthodontics restorations
Indications:

- free end saddle cases.
- In extensive bone loss in the anterior region.
- Patient’s desire not to grind his natural teeth.
- When a successful long-term prognosis is expected.
- When fixed partial denture is not indicated.
- When cross-arch stabilization is needed.
Fixed partial denture

- **Advantages:**
  - Preferred by some patients.
  - Fixed.
  - Superior function.
  - Superior esthetic.
  - Minimal bulk.
  - Has splinting effect.
Fixed partial denture

- **Disadvantages:**
  - High standard of oral hygiene is needed.
  - Tooth grinding is imperative.
  - More chair-time, more lab-time, more expensive.
  - Difficult to repair & difficult in accepting additions.
  - The number of teeth that can be replaced is limited.
Fixed partial denture

- **Contraindications:**
  - Very young patients.
  - Very old patients.
  - Long spans.
  - Free-end saddle.
  - Extensive bone loss in the anterior part of edentulous ridge.
  - Weak abutments.
Complete upper &/or lower dentures

- **Indications:**
  - Advanced periodontal disease.
  - Gross extensive caries.
Over denture

Indications:

- When remaining teeth are few & distant, e.g. two canines or two molars.
- Patients should have good systemic & oral health.
- Abutment teeth with healthy periodotium.
Implant denture

**Indications:**
- Patients should have good general, oral & mental health.
- Healthy periodontium is essential for the remaining natural teeth.
Leaving the condition as it is

- As in:
  - Missing last molar.
  - Narrow edentulous space.
  - Severe periodontal disease.
  - Hysterical patients.
  - Too bad oral hygiene.