Sreevidya.

1, Major Connectors

- A part of a removable partial denture which connects the components on one side of the arch to the components on the opp side of the arch

major connector

maxillary major connector
- Single posterior palatal bar
- Double palatal bar.
- Single broad palatal plate
- palatal strap
- Horseshoe connector
- closed horseshoe
- Complete palate

mandibular major connector.
- lingual bar
- lingual plate
- mandibular cingulum bar
- Sublingual bar
- kennedy bar
- Labial bar.

Ideal requirements :-

→ Rigidity - major connector should not be flexible. It should be rigid enough to uniformly distribute the occlusal forces acting on any portion of prosthesis.

→ It should provide vertical support & protect soft tissues

- It should provide a means of indirect retention whenever required
- It should be comfortable to the patient
- It should not allow any food accumulation
- It should be self - cleansing.

2) factors affecting abutment selection

1) parafunction
   - bruxism
   - clenching
   - tongue thrust & size

ii) masticatory dynamics
   - diet
   - dynamics
   - physical states
   - age & sex

3. position within the arch
4. arch length
5. arch curvature
6. span length
7. crown length
8. crown-root ratio
9. PDL area & surface area
10. Root configuration
11. long axes relationship
12. mesially tilted molar
13. occlusal anatomy
14. Buccolingual dimension of teeth
15. mobility
16. age of patient
17. Endodontically directed abutments
18. pic abutment
19. Vertical force causes the component to rotate.

3) Impression techniques in CD

a) Amount of pressure used.
   i) Pressure technique
   ii) minimal pressure technique
   iii) selective pressure technique

b) Based on the position
   i) Open mouth
   ii) close mouth

c) Based on method of manipulation
   1. hand manipulation
   2. functional movements.

① mucostatic
② mucocompressive
③ selective pressure.

Mucostatic Impression Technique:-

- Introduced by Richardson & henry page
- materials used are POP & alginate
- utilizes an oversized tray
- can be used in medially compressed. excessive resorption of ridges
- These dentures will have good stability but poor retention

Mucocompressive Impressive technique

- Proposed by carlow Zones
- In materials used : Impression compound & ZOE
- Records oral tissues in a functional & displaced form
- good retention
- residual ridge resorption is more often

4. Obturators :-

It is used to close congenital tissue opening, especially hard palate

uses of obturators

- It reduces oral contamination
- permits deglutition
- It reduces the period of hospitalization
- Reduces the period of hospitalization

Types of obturators

- Interim obturators
- definitive obturators
- palatal obturator

functions of an obturator

- It can help to reshape the defect
- It also improves speech possible
- It can benefit the mark of patients wd maxillary defects

When degulition & mastication are impaired, it can be used to improve functions

It can be used to keep the wound clean

t can enhance the healing of traumatic surgical defects

5) Swing lock dentures

- It consists of a labial / buccal retaining bar, hinged at one end & locked with a latch at the other, together with the a reciprocating lingual plate to gain a max retention & stability

Indications

- Too few remaining natural tooth for a RPD of conventional clasp
- Remaining teeth too mobile to serve as abutment teeth to conventional design
- Position of remaining teeth not favourable for a conventional design.
- To retain prosthesis for patients who has lost large segments of teeth & alveolar ridge through traumatic injury

Contraindications :-

- post irradiation of the head & neck regions
- systemic conditions that effect healing.
- Cardiac / Endocrine gland disturbances
- psychological disorders.

Fabrication of swing lock partial Denture

- Surveying & design
- making the impression
- occlusal development
- insertion
- post insertion care
- framework fabrication
- tray selection
- Jaw relations
- Selection of Impression material.

Name:- Sushma

1, Survey lines

A survey line is defined as "a line drawn on a tooth (or) teeth of a cast by means of a surveyor for the purpose of determining the positions of the various parts of a clasp (or) clasps

A survey line can also be defined as "A line produced on a cast of a tooth by a surveyor (or) scriber making the greatest wt of contour in relation to the choosen path of insertion of a planned restoration- GPT

- It marks the height of contour of the tooth

classification

1, High survey line

High survey line passes from the occlusal 3 in the near zone to the occlusal third in the far zone

- It is commonly found in inclined teeth & in teeth with a larger occlusal diameter compared to its diameter at the CEJ

2, Medium Survey line

It posses from the occlusal third in

the near zone to the middle 3rd in the far zone
- Aker's clasp is preferrable

3, low Survey line
This Survey line is closer to the cervical 3rd of the tooth in both near & far zone
- A modified T-clasp is used for teeth with low survey lines

4, Diagonal survey lines
- this survey line runs from the occlusal third of the near zone to the cervical third of the far zone.
here a reverse circlet clasp is used

2, post insertion problems in complete denture
a, the use of complete denture is not free of trouble the denture. can produce Sererse side effects, which is left untreated will produce
1, Destabilization of occlusion
2, loss of retention
3, Decreased masticatory efficiency
4, poor aesthetics
5, Increased ridge resorption
6, Tissue injury

Direct sequaleae of wearing complete dentures

1, Denture stomatitis

pathological reaction of the palatal portion of the denture it is commonly known as "Denture induced stomatitis" Denture sore mouth"

It is classified as Type-1 → localised simple infection

Type-2 → Generalized simple type

Type-3 → Granular type

2, Flabby ridge

the alveolar ridge may become mobile extendy resilient due to replacement of bone by fibrous tissue

3, Traumatic ulcer

commonly known as "sore spots". they usually develop within 1 to 2 days after placement of new dentures

4, Denture irritation hyperplasia

It is a hyperplastic reaction of the mucosa occuring along the border of the denture

5, oral cancer in denture wearers.

cases showing oral carcinoma in relation to chronic irritation of mucosa due to ill fitting denture

6, Burning mouth syndrome
characterized by burning sensations in the structures in contact with the denture without any visible changes on the mucosa

7, Gagging: The gag reflex is normal in healthy patients

8, Residual ridge resorption
It is pathological / physiological change which produce severe alteration in complete denture

9, over denture abutment
caries & periodontal disease
- the teeth support the complete dentures are called over denture abutments.

3, occlusal rest & rest seats
An occlusal rest can be defined as a rigid extension of a partial denture which contacts the occlusal surfaces of the tooth

function of an occlusal rest
- Transmit stress along the long axis of tooth

- Assist in distribution of occlusal load
- Sometimes, contributes to indirect retention

Design considerations

- The occlusal rest seat is a triangular shaped depression with its base at the marginal ridge & apex at the centre of the tooth
- Its margins should be smooth & gently curved
- The rest seat can also be prepared on restorations like cast gold & amalgam
- Cast gold restorations on an abutment tooth can be used to prepare rest seats for permanent prosthesis

pontic design

The success of a flo depends on the proper design of the pontic. if the pontic is not designed to restore function & aesthetics

3 important factors that control the design of the pontic

- space available for the placement of pontic
- the contour of the residual alveolar ridge

Edentulous ridge

The space is created due to the loss of a tooth is usually sufficient for the fabrication of a good pontic

Residual ridge contour

During treatment planning the diagnostic cast should be examined thoroughly the contour of the ridge & texture of the soft tissue should be observed during intraoral examination

occlusal load on the pontic

- the functional relationship of the cusps of pontic & the opposing teeth is the most critical consideration in the design of the pontic

5. Balanced occlusion

The simultaneous contacting of maxillary & mandibular with on right if left in posterior & anterior occlusal areas in centre & centric positing developed to lesser limit tipping a rotating of denture bases in relation to supplying structures

characteristic requirement

- All teeth of working side should glide evenly against the opposing teeth

Types

- unilateral balanced occlusion
- Bilateral balanced occlusion
- protrese balanced occlusion
- lateral balanced occlusion

unilateral

- seen on occlusal surfaces of teeth on 1side when they occlude simultaneously witha smooth unit guide

Bilateral

- seen when simultaneous contact occurs on both sides in centre & centric position

protrime balanced occlusion
- It is present when mandible moves in forward

PROSTHODONTIC EXAM

Prajwala

~~1) Abutment selection in FPD~~

1) Major connectors

- A part of a removable partial denture which connects the components on one side of the arch to the components on the opp side of the arch

Major connector

Maxillary major connector	Mandibular Major connector
↓	
- Single posterior palatal bar	- Lingual bar
- Double palatal bar	- Lingual plate
- single broad palatal palate	- Mandibular circulum bar
- palatal strap	- Sublingual bar
- Horseshoe connector	- Kennedy bar
- closed horseshoe	- Labial bar
- complete palate	

Ideal requirement

- Rigidity - Major connector should not be flexible It should be rigid enough to uniformly distribute occlusal force acting on any portion of prosthesis
- It should provide vertical support & protect soft tissues
- It should provide a means of indirect retention whenever required
- It should be comfortable to the patient
- It should not allow any food accumulation
- It should be sub-cleanting

Palatal bar

: Narrow, half oral
Thickest point at centre

Indication

: class IV

Palatal strap: Most versatile
Ap dimension should not be less than 8mm

Indication: kennedy is class-II

Antero-posterior palatal bar:-
- palatal bar + palatal strap
- 2 bars joined by a flat longitudinal element

Horse shoe connector
- consists of a thin band of metal
- should be symmetrical equal height on both sides

Design:
outline ↑ shear bearing area → outline non bearing areas → outline of connectors area → selection of connected type ↓ verification

2) obturators:
It is used to close congenital tissue opening, especially hard palate

uses of obturators
- It reduces oral contamination
- permits deglutition
- It reduces the period of hospitalization
- Reduces the period of hospitalization

Types of obturators
- Interim obturators
- definitive obturators
- palatal obturator

Functions of an obturator
- It can help to reshape the defect
- It also improves speech possible
- It can benefit the mass of patient

maxillary defects
- when deglutition & mastication are impaired, it can be used to improve functions
- It can be used to keep the wound clean
- It can enhance the healing of traumatic surgical defects

3) Swing Lock dentures

- It consists of a labial/ buccal retaining bar, hinged at one end & locked and a latch at the other, together with the a reciprocating, lingual plate to gain a max retention & stability

Indications

too few remaining natual tooth for a RPD of conventional clasp
- Remaining teeth too mobile to serve as abutment teeth to conventional design
- position of remaining teeth not favourable for a conventional design
- to retain prosthesis for patients who has lost large segments of teeth & alveolar ridge through traumatic

contraindications

- post irradiation of the head & neck region
- systemic conditions that effect healing
- cardiac / endocrine gland disturbances
- psychological disorders

Fabrication of swing Lock partial Denture

- Surveying & design
- Making the impression
- occlusal development
- Insertion
- post insertion care
- framework fabrication

- Tray selection
- Tray relation
- Selection of impression material

4) Impression techniques in CP
a. Amount of pressure used
   i. pressure technique
   ii. Minimal pressure technique
   iii. Selective pressure technique
b. Based on the position
   i. open mouth
   ii. close mouth
c. Based on method of manipulation
   1. hand manipulation
   2. Functional movements
   ① Mucostatic
   ② Mucocompressive
   ③ Selective pressure

Mucostatic Impression Technique:
- Introduced by Richardson & henry Foy
- Materials used are POP & alginate
- utilizes an oversized tray
- can be used in medially compressed Edentulous resorption of ridges
- True denture will have good stability but poor retention

Mucocompressive Impressive technique
- proposed by Carlson Jones
- Impression material used: Impression compound & ZOE
- Records oral tissue in a functional & displaced form
- Good retention
- Residual ridge resorption is more often

5) Factors affecting abutment selection:-

1) parafunction
   - Bruxism
   - clenching
   - tongue thrust & size.
2) Masticatory dynamics
   - axial
   - dynamics
   - physical states
   - ~~Age~~ ed
3) position with in the arch
4) arch length
5) arch curvature
6) Span length
7) crown length
8) crown-root ratio
9) PDL area and surface area
10) Root configuration
11) Long axis relationship
12) Mesially tilted molar
13) Occlusal anatomy
14) Buccolingual dimension of the teeth
15) Mobility
16) Age of the patient
17) endodontically treated abutments
18) pc abutment
19) Vertical force causes the component to rotate

Anoop staines

PROSTHODONTICS TEST

1) Occlusal rest and rest seat :

→ An Occlusal rest can be defined as 'A rigid extension of a partial denture which contacts the occlusal surface of the tooth.

Functions of an occlusal rest :

→ Transmit stress along the long axis of the tooth.
→ Assist in distribution of occlusal load.
→ prevent extrusion of the abutment
→ provide resistance to 'alter displacement.
→ Sometimes contributes to indirect retention.
→ Helps to build up the occlusal plane of a tilted tooth.
→ Avoid plunging of food between the tooth and the clasp.

→

Design Considerations :

→ The occlusal rest seat is a triangular-shaped depression, with its base at the marginal ridge and apex at the center of the tooth.

→ Its margins should be smooth and gently curved.
→ The size of the occlusal rest should be
- One half the buccolingual width between the cusp tips
- One third to one half the mesiodistal width of the tooth.

→ If it is more than 90°, the forces acting on the prothesis will not be transmitted.

→ Hence, the prosthesis will slip from the abutment tooth.

→ The rest seat can also be prepared on restorations like cast gold and amalgam

→ Rest seat on amalgam can be used only for interim/ temporary partial dentures.

→ Cast gold restorations on an abutment tooth can be used to prepare rest seats for permanent prosthesis.

② Survey lines

A survey line is defined as "A line drawn on a tooth or teeth of a cast by means of a surveyor for the purpose of determining the positions of various parts of clasp (or) clasps".

→ A survey line can also be defined as "A line produced on a cast of a tooth by a surveyor (or) scriber making the greatest ht of contour in relation to the chosen path of insertion of a planned restoration". - GPT

→ It marks the height of contour of tooth.

Classification

1) High survey line:

high survey line passes from occlusal third in the near zone to the occlusal third in the far zone.

→ When a high survey line is present, the undercut will be deep and hence a wrought clasp which is more flexible should be used.

→ It is commonly found in inclined teeth and in teeth with a larger occlusal diameter compared to its diameter at the CEJ.

2) Medium survey line :

It passes from the occlusal third in the near zone to middle third in far zone.

→ Aker's (or) Roach clasp is used for teeth with medium survey line.

→ Aker's clasp is preferable

→ During survey the cast should be tilted such that maximum number of teeth have a medium survey line.

3) Low survey line :

This survey line is closer to the cervical third of the tooth in both near and far zone.

→ A modified I-clasp is used for teeth with low survey lines.

→ It is common in teeth with marked mesial inclination, when it is associated with a high survey line on opposite side.

4) Diagonal survey line :

This survey line runs from the occlusal third of the near zone to cervical third of far zone.

Here, a reverse circlet clasp is used.

→ It is more common on Buccal surfaces of canines and premolars.

→ It can be managed by using reverse action (Hairpin) or ring type Aker's clasp (occlusally approaching) (or) L (or) T-type roach clasp (gingivally approaching).

3) Balanced occlusion:

→ The simultaneous contacting of maxillary and mandibular with on right if left in posterior and anterior occlusal areas in centre and centric positions, developed to lesser of limit tipping a rotation of denture bases in relation to supplying structures.

Characteristic requirements:

→ All teeth of working side should glide evenly against the opposing teeth.

→ No single tooth should produce any influence/ disocclusion of other teeth.

→ There should be simultaneously contact during protrusion.

Types:

- Unilateral balanced occlusion
- Bilateral balanced occlusion
- protrusive balanced occlusion

→ Lateral balanced occlusion

unilateral

- seen on occlusal surface of teeth on one side when they occlude simultaneously with a smooth, unit glide.

Bilateral balanced occlusion

→ seen when simultaneus contact occurs on both sides in center or centric position.

protrime balanced occlusion

→ It is present when mandible moves in forword
→ There will be minimal simultaneous three-point contact present during lateral movement of mandible.

4) pontic design

The sucess of a FPD depends on proper design of the pontic if the pontic is not designed to restore function and asthetic the change of failure are dramatically increases.

Three important factor that control the design of pontic

→ Space available for the placement of pontic
→ The contour of residual alveolar ridge
→ Amount of occlusal load that is anticipated for that patient.

Edentulous space

The space created due to the loss of a tooth is usually sufficient for the fabrication of a good pontic.

→ But in many cases, due to along period of edentulouness the adjacent teeth to be tilted/ drifted towards the space in such case on proper pontic cannot be placed and the design on the pontic

Residual ridge

→ During treatment planning the diagnostic cast should be thoroughly examined.

→ The contour of ridge and texture of soft tissues should be solved during intraoral examination.

Occlusal load on pontic

→ According to Stan the base requirement of a pontic is that it should be able to restore Proper function.

⑤ Post insertion problem in complete denture:

The use of complete dentures is not free of trouble The dentures can produce severe side effects, which is left will produce

(i) Destabilization of occlusion
(ii) Loss of retention
(iii) Decreased masticatory efficiency
(iv) poor aesthetics
(v) Increased ridge resorption
(vi) Tissue injury.

1) Denture stomatitis: It is the pathological reaction of the palatal portion of denture bearing mucosa. It is commonly known as "denture induced stomatitis" denture sore mouth", denture stomatities, inflammatory papillary hyperplasia (or) chronic atrophic conditions.

It is classified as Type-I - localised simple infection
Type-II - Generalized simple type
Type-III - Granular type

2) Flabby ridge:

The alveolar ridge may become mob mobile and extremely resilient due to replacement of bone by fibrous tissue

→ It is more commonly seen in anterior part of maxilla opposing natural mandibular anterior teeth.

3) Traumatic Ulcers

→ Commonly known as "sore spots" they usually develop within 1 to 2 days after placement of new dentures.

4) Denture irritator hyperplasia:

It is a hyperplastic reaction of mucosa occuring along border of denture, These lesion result from trauma due to unstable dentures with thin denture flanges.

5) Oral cancer in denture wearers:

Cases chewing oral carcinoma in relation to chronic irritation of mucosa due to ill-fitting denture they usually manifest as non-healing ulcers.

6) Burning mouth syndrome:

Characterized by burning sensation in structures in contact with dentures without any visible changes in mucosa.

7) Gagging: The gag reflex is normal in healthy patients.

In sensitive pts, new dentures may stimulate gagging but it will disappear as the patient adapts to denture.

8) Overdenture abutments ; Carries of periodontal diseases the teeth support the 'Complete denture are called over denture abutments.

→ The over-denture abutments have high rat to carries of periodontal diseases.

Name:- ADAM'S
PROSTHODONTICS TEST:-

① occlusal rest and Rest seat:-

→ An occlusal rest can be defined as a rigid extension of a partial denture which contacts the occlusal surface of tooth.

Functions of occlusal Rest:-

- Transmit stress along the long axis of the tooth
- Assist in distribution of occlusal load.
- Prevent extension of the abutment
- Provide resistance to filter displacement
- sometimes contributes to indirect retention.
- Helps to buildup the occlusal plane of filled tooth
- Avoid Plunging of food blw the tooth and clasp

Design considerations:-

→ The occlusal rest seat is triangular-shaped depression, with its base at marginal ridges apex at centres of teeth.

→ It's margin should be smooth & gently curved

→ The size of occlusal rest should be

→ one half the Buccolingual with blw cusp tips.

- one third to one half the mesiodistal width

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the tooth

→ If it is more than 90°, the forces acting on the prosthesis will not be transmitted.

→ Hence, the prosthesis will slip from from the abutment tooth.

→ The rest seat can also be prepared on restorations like cast gold & amalgam.

→ Rest seats on amalgam can be used only for interim/temporary partial dentures.

→ cast gold restorations on abutment tooth. can be used to prepare rest seats for permanent prosthesis.

② Survey lines.

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- A survey line can also be defined as "A line produced on a cast of a tooth by a surveyor (or) scriber making the greatest ht of contour in retention to choosen path of insertion of planned restoration - GPT.

→ It marks the height of contour of tooth

classification:

1. High survey line:

Passes from occlusal third in the near zone to occlusal third in far zone.

→ when a high survey line in present, the undercut will be deep & hence a wrought clasp which is more flexible should be used.

- It is commonly found in Inclined tooth & in teeth with a larger occlusal diameter compared to its diameter at CEJ.

2. Medium survey line:

It passes from the occlusal third in the near zone to the middle third in far zone.

→ Akers (or) roach clasp is used for teeth with medium survey line.

→ Aikers clasp is preferable

→ During survey the cast should be tilted such that maximum number of teeth have a medium survey line.

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3. Cross survey line:-

→ This survey line is closer to cervical third of tooth in both near & far zone.

→ A modified T-clasp is used for teeth with cross survey line.

→ It is common in teeth with marked inclination, when it is associated with high survey line on the opposite side.

4) Diagnoal survey line:-

This survey runs from occlusal third of near zone to cervical third of far zone. Here, a reverse circlet clasp is used.

→ It is more common in buccal aspect surfaces of canines & premolars.

→ It can be managed by using Reverse action (or) ring type Aker's clasp (occlusally approaching) (or) I-type roach clasp. (gingivally approaching).

(3) Post insertion problems in complete dentures

(A) The use of complete dentures is not free of trouble.

The dentures can produce severe side

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effects, which is left unchecked will produce

(i) Destabilisation of occlusion
(ii) Loss of retention
(iii) Decreased masticatory Efficiency
(iv) Poor aesthetics
(v) Increased ridge resorption
(vi) Tissue injury

Direct sequelae of wearing complete denture:-

(1) Denture stomatitis:-

It is the pathological reaction of Patal Portion of the Denture bearing mucosa It is commonly knowns as denture induced Indirect stomatitis is induced stu "denture sore mouth".

Denture stomatitis" Inflammatory papillary Hyperplasial chronic atrophic candiadisis.

It is classified as- Type-I - Localised simple
II - Generalised type
III - Granular Type

(2) Flabby Ridge:-

The Alveolar ridge may become mobile & Extremely resilent due to replacement of bone by Fibrosis tissue.

→ It is more commonly seen in anterior part of mouth

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opposing natural maxillary teeth.

3. traumatic ulcers:

Commonly known as "sore spots". They usually develops within 1 to 2 days after placement of new dentures.

4. Denture irritation Hyperplasia (Epulis Fissuratum)

It is a hyperplastic reaction of mucosa occuring along the borders of denture. These lesions result from trauma due to unstable dentures with ill denture flanges.

5. oral cancer in denture wearers

Cases showing oral carcinoma in relation to chronic irritation of mucosa due to ill-fitting denture. They usually manifest as non-healing ulcer.

6. Burning mouth syndrome (BMS)

Characterised by burning sensation in structures in contact with dentures without any visible changes of mucosa.

7. Gagging:

The gag reflex is normal in Healthy patients. In sensitive pts, new dentures may stimulate gagging but it will disappear as the patient adapts to denture.

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3. Residual ridge resorption:

It is Pathological change which Produce severe alteration in complete denture treatment

2. over denture abutments:

Caries & Periodontal diseases the teeth support the complete denture are called over denture abutments

- The over-denture abutment have high risk to caries & Pdl diseases

4) Ponitic designs.

The sucess of a RPD depends on the Proper design of Ponitic. If the Ponitic it not designed to restore function and aesthetics. the cause of failure of diagnostically in

3, important features that control the design of Ponitic

- space available for placement of Ponitic
- The contour of residuced alveolar ridge
- Amount of occlusal load that is anticipated for that Patient

Edentulous space:

The space is created due to loss of tooth is usually sufficient for the fabrication of a

and ponitic

- But in many cases due to along period of edentulous the adj teeth tend to be tilted or drifted towards this space. In such cases a proper ponitic cannot be placed & the design of ponitic should be compromised

Residual ridge contour.

- During treatment planning the diagnostic cast should be thoroughly examined. The anat of the ridge & texture of soft tissue should be Involved during Intra oral examination occlusal load on the ponitic.

- According to skinner the basic requirement of ponitic is that is should be able to restore proper function

The functional relationship of cusps of the ponitic and the opposing teeth is the most clinical consideration in the design of ponitic

- Hence to restore proper function the ponitic should contain the sense occlusal pattern as the remaining dentition.

5) Balanced occlusion

→ The stimulataneous contacting of maxillary & mandibular with on right if left.

→ In posterior & Anterior occlusal area in centre.

→ Centric positions, develops to lower(or) limit tipping a rotations of denture bases in relation to supporting structures.

Characteristic requirements:-

- All teeth of working side should glide evenly against the opposing teeth.
- No single tooth should produce any influenced dislocation of other teeth
- There should be simultaneously contact during protrusion

Types:-

- unilateral balanced occlusion
- Bilateral balanced occlusion
- Protuse balanced occlusion
- Lateral balanced occlusion

unilateral:

- seen on occlusal surfaces of teeth on the one side when they occlude simultaneously with smooth.

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Bilateral balanced occlusion

- seen when simultaneous contact occurs on both sides in centre & centric position

Protrusive balanced occlusion

- It is present when mandible moves in forward
- There will be bilateral simultaneous three point contact present during lateral movement of mandible.

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Prosthodontics test

Sandhya Rani

Major Connectors

- A part of a Removable partial denture which the components on one side of the arch to the components on the opposite side of the arch

Major Connectors

Maxillary major connectors
- Single posterior palatal bar
- Double palatal bar
- Single broad palatal plate.
- palatal strap
- horseshoe connecta.
- Closed horseshoe
- Complete palate

Mandibular major connectors
- lingual bar
- lingual plate.
- mandibular Cingulum bar
- Sublingual bar
- Kennedy bar
- labial bar

Ideal Requirements:
- Rigidity- major connectors should not be flexible. It should be Rigid Enough to uniformly distribute the occlusal forces acting on any portion of prosthesis
- It should provide vertical support & protect soft tissues
- It should provide a means of indirect Retention whenever Required
- It should be Comfortable to the patient.
- It should not allow any food accumlation
- It should be Sub cleanzing

Palatal bar : Narrow, half oval
Thickest point at centre

Indications : Class-III

Palatal Strap: most versatile
Ap "dimension should not be less than 8mm

Indications : Kennedy's Class-II

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Antero-posterior palatal bar:
- palatal bar + palatal strap
- 2 bars joined by a flat longitudinal Element

Horse shoe Connector:
- Consists of a thin band of metal
- Should be Symmetrical - Equal height on both sides

Design:

Outline primary stress bearing areas → Outline non bearing areas → Outline of Connectors Equal → Selection of Connector type ↓ Verification

2) Abutment Selection in fpd:

Factors Effecting abutment Selection

1) parafunction
   - bruxism
   - Clenching
   - torque-thrust &
2) Masticatory dynamics
   - diet
   - dynamics
   - Physical Status
   - age & Sex
3) position within the arch
4) arch length
5) arch Curvature
6) Span length
7) Crown length
8) Crown-root ratio
9) PDL area & Surface area
10) Root Configuration

3)

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11) long axis relationship
12) mesially tilted molar
13) Occlusal anatomy
14) Buccolingual dimension of teeth
15) mobility
16) age of patient
17) Endodontically directed abutments
18) Pic abutment
19) ~~Ver~~ Vertical force causes the component to rotate

3) Impression technique in C.D:

a) Amount of pressure used
   i) pressure technique.
   ii) minimal pressure technique
   iii) Selective pressure technique

b) Based on the position
   1) Open mouth
   2) Close mouth

c) Based on method of manipulation
   1) hand manipulation
   2) functional movements

① mucostatic
② mucocompresive
③ Selective pressure.

mucostatic impression technique:
- Introduced by Richardson & henry page.
- material used are POP & alginate
- Utilizes an oversized tray
- Can be used in medically Comprised Excessive resorption of ridges
- These dentures will have good stability but poor retention

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Mucocompressive impression technique
- Proposed by Various Zones
- In materials used impression Compound & ZOE
- Records Oral tissues in a functional & displaced form
- Good Retention
- Residual Ridge Resorption is made often

d) Obturators
- It is used to close Congenital tissue opening Especially hard Palate.

Uses of Obturators
- It Reduces Oral Contamination
- permits deglutition
- It Reduces the period of hospitalization
- Reduces the period of hospitalization

Types of Obturators
- Interim Obturators
- definitive Obturators
- palatal Obturators

Functions of an Obturator
- It Can help to Reshape the defect
- It also improves Speech possible
- It Can benefit the mask of patients with maxillary defects
- When deglutition & mastication are impaired it Can be used to improve function
- It Can be used to Keep the wound Clean
- It can Enhance the healing of traumatic Surgical defects

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5) Swing lock

- It consists of labial/buccal retaining bar lined at one end & locked with a latch at the other together with the reciprocating lingual plate to gain a mandibular retention & stability

Indications

- Too few remaining natural tooth for a RPD of Conventional Clasp
- Remaining teeth too mobile to serve as abutment teeth to Conventional design.
- position of remaining teeth not favourable for a Conventional design
- To retain prosthesis for patients she has lost large segments of teeth & alveolar ridge through traumatic injury

Contraindications

- post irradiation of the head & neck regions
- Systemic conditions that Effect healing
- Cardiac/Endocrine gland disturbance
- psychological disorders

Fabrication of Swing lock partial denture:

- Surveying & design
- making the impression
- Occlusal development
- insertion
- post insertion care
- framework fabrication
- Tray selection
- Jaw relations
- selection of impression materials

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Roji

Major connector

A part of the removable partial denture which connects the components on one side of the arch to the components on the opp. side of arch.

Major connector (M.C)

Maxillary M.C
- Single posterior palatal bar
- Double palatal bar
- Single broad palatal plate
- palatal strap
- Horse shoe connector
- closed horse shoe
- complete palate

Mandibular M.C
- Lingual bar
- Lingual plate
- Mandibular cingulum bar
- Sublingual bar
- Kennedy bar
- Labial bar

Ideal requirements :-

Rigidity - major connector should not be flexible. It should be rigid enough to uniformly distribute the occlusal forces acting on any portion of prosthesis

It should provide vertical support & protect soft tissues

It should be comfortable to the patient

It should not allow any food accumulation

It should be self cleaning

It should provide means of indirect retention when required

palatal bar: Narrow, half oval
Thickest point at centre

Indications: class III

palatal Strap: most versatile
A-P dimension should not be < 8mm

Indica^{n}: kennedy's class II

Antero-posterior palatal bar:
palatal bar + palatal strap
2 bars joined by a flat longitudinal element

Horse shoe connector:
consists of a thin band of metal
should be Symmetrical - equal height on both sides.

Design:

outline primary Stress bearing area → outline non-bearing areas → outline of connectors areas → selection of connector type → unification.

Abutment selection in FPD

factors affecting abutment selection.

1, parafonction
- bruxism
clenching
tongue thrust & sic

2, Masticatory dynamics
- diet
dynamics
physical status
Age & Sex

3, position within the arch.

4, Arch length.

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5, Arch curvature
6, Span length
7, Crown length
8, crown-root ratio
9, PDL area & Surface area
10, Root configuration
11, Long axis relationship.
12, mesially filled molal
13, Occlusal anatomy
14, Buccolingual dimension of teeth.
15, mobility
16, Age of patient
17, Endodontically directed abutment.
18, pic abutment.
19, Vertical force causes the component to rotate

Impression techniques in CD

- Amount of pressure used
  - pressure technique
  - minimal pressure technique
  - Selective pressure technique.
- Based on the position.
  - open mouth.
  - closed mouth.
- Based on method of manipulation.
  - Hand manipulation.
  - functional movement
- Mucostatic
- Mucocompressive
- Selective pressure.

Mucostatic impression technique:

Introduced by Pickerdon & Hery page.

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materials used are POP & algenate
utilizes an accesized tray.
can be used in medically comprised.
excessive resorption of ridges.
these dentures will have great hability but poork retention

Muc compressive impression technique:-

proposed by various zones
In materials used impression compound & ZOE
Records oral fissures in a functional & displaced form
Good retention.
Residual ridge resorption is more often

Obturators:-

It is used to close congenital tissue opening especially hard palate

Uses of obturators:-

It reduces oral contamination
permit deglutition
It reduces the period of hospitalisa^n
~~Reduce the period of~~

Type of obturators:

Interim
Definitive
palatal

functions:

Help to reshape the defect
Improve speech possible

can benefit the mark of patients with max. defect
when deglution & mastication are impaired it can be used to improve functions

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used to keep wound clean
can enhance the healing of traumatic surgical defect

c, Swing lock dentures:

It consists of labial / buccal retaining bar, lingual bar one end is locked and a latch at the other, together with the reciprocating lingual plate to gain a mass retention and stability

Indications:

few remaining natural teeth for RPD of conventional
Remaining teeth too mobile to serve as abutment teeth to conventional design
position of remaining teeth not favourable for conventional design
To retain prosthesis for patients who has lost large segment of teeth & alveolar ridge through ~~trauma~~ traumatic injury.

contraindications:

post indication of the head & neck region
Systemic condition that effect healing
Cardiac / Endocrine gland disturbances
psychological disorder.

fabrication:-

Surveying & design
making the impression
Occlusal development
Insertion
post insertion care
frame work fabrication
tray selection
Jaw relation Selection of impression material.

Ujwala

1. Major connectors
2. Abutment selection in FPD
3. Impression techniques in CD.
4. obturator.
5. Swing lock Dentures

2. Factors affecting abutment selection:
   1. Parafunction
      - bruxism
      - clenching
      - Tongue thrust & size
   2. Masticatory dynamics
      - dynamics
      - Physical states
      - age and sex
   3. Position within the arch
   4. Arch length
   5. Arch curvature
   6. span length
   7. Crown length
   8. PDL area & surface area
   9. Crown-root ratio
   10. Root configuration
   11. Long axis relationship
   12. Mesially tilted molar
   13. buccolingual dimension of Teeth
   14. Mobility

15. Age of patient
16. Endodontically Treated abutment
17. Pier abutment
18. Vertical force causes the component to rotate

3. Impression Techniques in CD:

a. Amount of pressure used
   1. Pressure Technique
   2. Minimal pressure Technique
   3. Selective Pressure Technique

B. Based on position
   1. open mouth
   2. close mouth

C. Based on method of manipulation
   1. hand manipulation
   2. functional movements

1. Mucostatic
2. Mucocompressive
3. Selective pressure

Mucostatic impression Technique

- Introduced by Richardson Shenny, 1971
- Materials used are POP & alginate
- Utilizes an oversized tray.
- Can be used in Medially compromised Patients & excessive resorption of ridges
- Intimate contact of dentin is achieved

- These dentures will have good stability but poor retention

Muco compressive Impression Technique

- Proposed by Carlos Jones
- The materials used: Impression Compound & ZOE
- Records oral tissues in a functional & displaced form
- good retention
- residual ridge resorption is more often

4. Obturator

It is used to close congenital tissue opening, especially hard palate

Use of obturators

- It reduces oral contamination
- Permits deglutition
- It reduces the period of hospitalization

Types of obturators

- Interim obturators
- definitive obturators
- palatal obturators

Function of an obturator

- It can help to reshape the defect
- It also improves speech possible
- It can benifit the patients with maxillary defects

- When deglutition and mastication are impaired it can be used to improve function.
- It can be used to keep wound clean
- It can enhance the healing of Traumatic Surgical defects

5. Swig lock dentures:

It consists of a labial/buccal retaining bar, lingual at one end and locked with a latch at other, together with the a reciprocating lingual plate to gain a max. retention and stability.

Indication

- Too few remaining natural teeth for RPD of ~~Crown~~ Conventional design
- Remaining teeth too mobile to serve as abutment teeth ~~for~~ conventional design
- Position of remaining teeth not favourable for a ~~Cr~~ conventional design
- To remain prosthesis for patients who have lost large segments of teeth [alveolar ridge through traumatic injury

Contraindication

- Past irradiation of head & neck region
- Systemic conditions that affect healing
  - Cardiac / endocrine gland disturbances
  - Psychological disorder

Fabrication of swing lock partial Denture:

- surveying and design
- Making the impression
- Occlusal development
- insertion
- post insertion care
- framework fabrication.
- Tray selection.
- Jaw relations
- Selection of impression material

1. Major connectors

A part of a RPD which connects the components on one side of arch to components on opposite side of.

Major connectors

Maxillary Major connectors

- Single posterior palatal bar
- double palatal bar
- Single broad palatal Plate
- palatal Strap
- Horseshoe Connector
- Closed horseshoe
- Complete palate

Mandibular major Connectors

-> lingual bar
-> Lingual bar
-> mandibular Cingulum bar
-> Sublingual bar
- Kennedys bar
- labial bar

Ideal Requirements

- Rigidity - Major Connectors should be flexible, It should be rigid enough to uniformly distribute the occlusal forces acting on any portion of prosthesis
- It should provide Vertical support & protect soft tissues
- It should provide a means of indirect retention whenever required
- It should be comfortable to patient
- It should not allow any food accumulation
- It should be self-cleansing

Palatal bar:

Narrow, half oval

Thickest point of center.

Indications: class IV

Palatal Strap: Most Versatile

AP dimension shouldn't be less than 8mm

Indications: Kennedy's class IV

anteroposterior palatal bar:

Palatal bar + Palatal strap

- 2 bars focused by a flat longitudinal element

prosthodontics Name: Gayathri Bhai

1) major Connectors?
2) Abutment Selection in FPD?
3) Impression techniques in CD?
4) Obturators?
5) Swing Lock Dentures?

4) Obturator:

It is used to close congenital tissue opening, especially hard palate.

Uses of obturator:

- It reduces oral contamination.
- permits deglutition
- It reduces the period of hospitalization.
- Reduces the period of hospitalization.

Types of Obturators:

- Interim obturators
- definitive obturators
- palatal obturator.

functions of an Obturator:

- It can help to reshape the defect
- It also improves speech possible.
- It can benefit the morale of patients with maxillary defects
- when deglutition and mastication are impaired, it can be used to improve functions.
- It can be used to keep the wound clean
- It can enhance the healing of traumatic surgical defects

5) Swing lock denteres:

- It consists of a labial / buccal retaining bar, hinged at one end and locked wit a latch at the other, together with the a reciprocating lingueal plate to gain a max. retention and stability.

Indications:

- Too few remaining natural teeth for a RPD of conventional design
- Remaining teeth too mobile to serve as abutment teeth for conventional design.
- Position of remaining teeth not favourable for a conventional design.
- To retain prosthesis for patients who have lost large segments of teeth and alveolar ridge through traumatic injury.

contra Indications:

- Post irradiation of the head and neck regions.
- Systemic conditions that affect healing
- Cardiac / endocrine gland disturbances
- psychological disorders.

Fabrication of Swing lock Partial Dentures:

- Surveying and design.
- making the impression.
- occlusal development
- insertion
- Post insertion care
- framework fabrication.
- Tray selection.
- jaw relations
- Selection of impression material.

3) Impression techniques in CD.

a) amount of pressure used

1. pressure - technique
2. minimal pressure technique
3. Selective pressure technique.

b) Based on the position:

1. Open mouth
2. Close mouth

c) Based on method of manipulation

1. hand manipulation
2. functional movements.

① muco static
② muco compressive
③ Selective pressures.

muco static Impression technique-

- Introduced by - Richardson & Henry page.
- materials used are POP & alginate
- utilizes an oversized tray
- can be used in medically compromised patients & in excessive resorption of ridges.
- Intimate contact of the tissue & denture is achieved.
- These dentures will have good stability but poor retention.

muco compressive Impression technique:

- proposed by various zones.
- Tx materials used : Impression compound & zoe
- Records oral tissues in a functional & displaced form
- good retention.
- residual ridge resorption is more often

(2) Factors affecting abutment selection :

1) parafunction :
   - bruxism
   - clenching
   - tongue thrust & size
2) masticatory dynamics
   - diet
3)
   - dynamics
   - physical status
   - age and sex
4) position within the arch
5) arch length
6) arch curvature
7) span length
8) crown length
9) crown - root ratio
10) PDL area and surface area
11) Root configuration
12) long axis relationship
13) mesially tilted molar
14) Gingival anatomy
15) Gingival dimension of the tooth
16) mobility
17) age of the Patient
18) Endodontically treated abutments
19) Pier abutment
20) Vertical force causes the component to rotate

(1) major Connectors:

A part of a RPD which connects the components on one side of the arch to the components on the opp side of the arch.

major connectors

maxillary major connectors
- Single posterior palatal bar
- double palatal bar
- single broad palatal plate
- palatal Strap
- horseshoe connector
- closed horseshoe
- complete palate

mandibular major connectors
- lingual bar
- lingual plate
- mandibular cingulum bar
- Sublingual bar
- kennedy bar
- labial bar

Ideal Requirements:

→ Rigidity - major connector shouldn't be flexible. It should be rigid enough to uniformly distribute the occlusal forces acting on any portion of prosthesis.

- It should provide vertical Support & protect soft tissues
- It should provide a means of indirect retention wherever required.
- It should be comfortable to the patient
- It should not allow any food accumulation.
- It should be self-cleansing.

palatal bar: Narrow, half oval
Thickest point at centre

Indications: class IV

Palatal strap: most versatile
AP dimension shouldn't be less than 8 mm

Indication: kennedy's class IV

anteroposterior palatal bar: palatal bar + palatal strap
- 2 bars joined by a flat longitudinal element

Venkata pavan Kalyan

PROSTHODONTICS TEST

1. Survey lines:-

A Survey line is defined as "A line drawn on a tooth [or] teeth of a cast by means of a Survey or for the purpose of determining the positions of the various parts of a clasp [or] clasps".

— A survey line can also be defined as "A line produced on a cast of a tooth by a survey [or] scriber marking the greatest ht of contour in Relation to the chosen path of insertion of a planned Restoration" — GPT

— It marks the Height of Contour of the Tooth

Classification

1. High survey line:-

— High Surveyline passes from the occlusal third in the nearzone to the occlusal third in the far zone

→ When a high survey line is present; the undercut will be deep & hence a wrought wire clasp which is more flexible should be used

→ It is commonly found in Inclined teeth & in teeth with a larger occlusal diameter Compared to its diameter at the CEJ.

2. Medium Survey line:-

— It passes from the occlusal third in the near zone to the middle third in the far zone

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→ Aker's (or) Roach clasp is used for teeth with medium surveyline

→ Aker's clasp is preferable

→ During survey the cast should be tilted such that maximum number of teeth have a medium survey line.

iii) Low Surveyline:-

→ This surveyline is closer to the cervical third of the tooth in both near & farzone

→ A modified I-clasp is used for teeth with low surveylines

→ It is common in teeth with marked Inclination, when it is associated with a high survay line on the opposite side

iv) Diagonal Surveyline:-

→ This survey line runs from the occlusal third of the nearzone to the cervical third of the farzone Here; A reverse circlet clasp is used.

→ It is more common on the Buccal surfaces of Canine & premolars

→ It can be managed by using Reverse Action (Hairpin) or ring type Aker's clasp [occlusally approaching), a 2(or) T-type roach clasp [gingivally approaching]

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Q. Post insertion problems in complete denture?

A. The use of complete dentures is not free of trouble The dentures can produce severe side effects, where it is left unchecked will produce

(i) Destabilization of occlusion

(ii) Loss of Retention

(iii) Decreased Masticatory efficiency

(iv) poor Aesthetics

(v) Increase Ridge Resorption

(vi) Tissue Injury

Direct sequalae of wearing complete dentures:

1. Denture Stomatitis → It is the pathological Reaction of the palatal portion of the Denture-bearing mucosa. It is commonly known as "Denture Induced Stomatitis", "Denture Sore Mouth", "Denture Stomatitis", "Denture Sore Mouth", "Denture Induced stomatitis", "Inflammatory Papillary Hyperplasia" (or) Chronic Atropic Candidiasis"

→ It is classified as:- — Type I → Localised Simple Infection

Type II → Generalised Simple type

Type III → Granular Type

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(2) Flabby Ridge:-

→ The Alveolar ridge may become mobile & extremely resilient due to replacement of bone by fibrous tissue.

→ It is more commonly seen in the Anterior part of maxilla opposing natural mandibular Anterior teeth

3) Traumatic Ulcers:-

→ Commonly known as "Sore spots"; They usually develop within 1 to 2 days after placement of new dentures

4) Denture Irritation Hyperplasia [Epulis Fissuratum]

→ It is a Hyperplastic reaction of the mucosa occuring along the borders of the denture. These Lesions result from trauma due to unstable dentures with thin Denture flanges.

5) Oral cancer in Denture wearers:-

Cases showing oral carcinoma in relation to chronic irritation of Mucosa due to ill-fitting denture. They usually manifest as non-healing ulcer.

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6) Burning Mouth Syndrome (BMS):-

→ Characterized by burning sensation in the structures in contact with the dentures without any visible changes in the Mucosa

7) Gagging:-

→ The Gag reflex is normal in Healthy patients In Sensitive pts; new dentures may stimulate gagging but it will disappear as the patient adapts to the denture

8) Residual Ridge Resorption:-

→ It is pathological physiological change which produce Severe Alteration in Complete denture treatments

→ It is most common & Important Sequel of wearing Complete dentures

(9) Overdenture Abutments:-

Caries & peridontal diseases

— The teeth support the Complete denture are called Overdenture Abutmes.

→ The over-denture Abutments have high risk to cancer & peridontal diseases

Indirect Sequalae of wearing Complete dentures

1) Atrophy of Masticatory Muscles

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3. Balanced occlusion:-

→ The Simultaneous Contacting of Maxillary & mandibular with an Right it left & in posterior & Anterior occlusal Areas in Centre & Centric positions, developed to Lesser or limit tipping a rotation of denture bases in relation to supplying Structures

Characteristic Requirements:

→ All teeth of working side should glide evenly against the opposing teeth

→ No single tooth should produce any influence distolution of other teeth

→ There should be Simultaneous Contact during protrusion

Types:-

— Unilateral balanced Occlusion
— Bilateral balanced Occlusion
— Protrusive balanced occlusion
— Lateral balanced occlusion

Unilateral

— Is seen on occlusal surfaces of teeth on one side when they occlude simultaneously with

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a smooth unit glide.

Bilateral balanced occlusion:-

→ Seen when simultaneous contact occurs on both sides in centre & centric position

Protrime balanced occlusion:-

→ It is present when mandible moves in forward

→ These will be minimal simultaneous three-point contact present during lateral movement of the mandible.

(4). Pontic design:-

→ The success of FPD depends on the proper design of the pontic. If the pontic is not designated to restore function & Aesthetic the chance of failure are dramatically increases

Three important factor that control the design of the pontic

→ Space Available for the placement of the pontic

→ The contour of the residual Alveolar Ridge

→ Amount of occlusal load that is anticipated for that patient

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Edentulous Space

→ The space created due to the loss of a toothis usually sufficient for the fabrication of a good pontic

→ But in many cases; due to a long period of edentulousness; the adjacent teeth should be tilted drifted towards the space in such case a proper pontic connot be placed & the design of the pontic.

Residual Ridge

— During treatment planning the diagnostic cast should be thoroughly examined

— The contour of the Ridge & texture of the soft tissues should be solved during IntraOral examination

Occlusal load on the pontic

→ Acc to stan the basic requirement of a pontic is that it should be able to restore proper function.

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5. Occlusal Rest and Rest Seat

→ An occlusal rest can be defined as "A rigid extension of a partial denture which contacts the occlusal surface of the tooth

Functions of an Occlusal Rest

→ Transmit stress along the Long axis of the tooth
→ Assist in distribution of occlusal load.
→ Prevent extrusion of the Abutment
→ Provide Resistance to alter displacement
→ Sometimes contributes to indirect retention
→ Helps to build up the occlusal plane of a tilted tooth
→ Avoid plunging of Food b/w the tooth & clasp

Design Considerations:-

→ The occlusal Rest seat is a triangular-shaped depression; with its base at the marginal ridge & Apex at the center of the tooth
→ It margins should be Smooth & gently Curved
→ The Size of the occlusal rest should be one half the buccolingual with b/w the Cusptips
→ One third to one half; the Mesiodistal width of the tooth
→ If it is more than 90°; the forces acting on the prosthesis will not be transmitted

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→ Hence; The prosthesis will slip from the Abutment tooth

→ The rest seat can also be prepared on Restorations like cast gold and Amalgam

→ Rest seats on Amalgam can be used only for Interim/temporary partial dentures

→ Cast gold Restorations on an Abutment tooth can be used to prepare rest seats for permanent prosthesis.

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Prosthodontics test

Name:- Aruna prathyusha

(1) Survey line:-

A Survey line is defined as "A line drawn on a tooth (or) teeth of a Cast by means of a Surveyor for the purpose of determining the positions of the various parts of a clasp (or) clasps".

- A Survey line Can also be defined as "A line produced on a Cast of a tooth by a Surveyor (or) Scriber making the greatest circumference of contour in relation to the chosen path of insertion of a planned restoration" - GPT.
- It marks the height of Contour of the tooth.

Classification:

(1) high Survey line:-

high Survey line passes from the occlusal 3 in the near zone to the occlusal third in the far zone.

- When a high Survey line is present, the undercut will be deep & hence a wrought wire clasp which is more flexible should be used.
- It is commonly found in Inclined teeth & in teeth with a large occlusal diameter compared to its diameter at the CEJ.

(2) medium Survey line

It passes from the occlusal third in the near zone to the middle 3rd in the far zone

- Aker's (or) roach clasp is used for teeth with medium Survey line.
- Aker's clasp is preferable.
- During Survey the Cast should be tilted such that maximum number of teeth have a medium Survey line.

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(iii) low Survey line

This Survey line is closer to the Cervical third of the tooth in both mesial & distal Zone

- A modified T-clasp is used for teeth with low Survey lines.
- It is common in teeth with marked Inclination, when it is encircled with a high Survey line on the opposite side

(iv) Diagonal Survey line:

- This Survey line runs from the occlusal third of the mesial Zone to the Cervical third of the distal Zone.

Here a reverse circlet clasp is used.

- It is more Common on the buccal surfaces of Canines & Premolars.

(2) post insertion problems in complete denture.

(a) The use of complete denture is not free of trouble the denture can produce several side effects, which is left untreated will produce.

(i) Destabilization of occlusion.
(ii) Loss of retention
(iii) Decreased masticatory Efficiency
(iv) poor aesthetics
(v) Increased ridge resorption
(vi) Tissue injury

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Direct Sequelae of wearing Complete dentures

(1) Denture stomatitis:

Pathological reaction of the palatal portion of the Denture bearing mucosa. It is commonly known as "Denture Induced stomatitis". Denture sore mouth".

It is classified as Type I → localised simple infection.
Type II → Generalized simple type
Type III → Granular type.

(2) Flabby Ridge:-

The alveolar ridge may become mobile & extremely resilient due to replacement of bone by Fibrous tissue.
- It is more commonly seen in anterior part of maxilla opposing natural mandibular anterior teeth.

(3) Traumatic ulcer:-

commonly known as "sore spot". They usually develop within 1 to 2 days after placement of new dentures.

(4) Denture Irritation hyperplasia (Epulis Fissuratum)

It is a hyperplastic reaction of the mucosa occurring along the border of the denture. These lesions result from traumatic to ill-fitted dentures with the denture flanges.

(5) Oral Cancer in Denture wearers.

Cases showing oral carcinoma in relation to chronic irritation of mucosa due to ill-fitting denture. They usually manifest as non-healing ulcer

Scanned with CamScanner

(6) Burning mouth Syndrome:-

Characterized by burning sensation in the structures in contact with the dentures without any visible changes in the mucosa.

(7) Gagging:- The gag reflex is normal in healthy patients. On sensitive pts, new dentures may stimulate gagging but it will disappear as the patient adapts to the denture.

(8) Residual ridge resorption

It is pathological / physiological change which produce several alteration in complete denture

- It is most common & important sequela of using complete denture.

(9) Overdenture abutment:-

Caries & periodontal disease.

- The teeth support the complete dentures are called over-denture abutments
- The over-denture abutments have high risk to Caries & Periodontal disease.

(13) occlusal rest and rest seats.

- An occlusal rest can be defined as 'A rigid Extension of a partial denture which contacts the occlusal surfaces of the tooth.

function of an occlusal rest

- Transmit stress along the long axis of tooth.
- Assist in distribution of occlusal load.
- prevent Extrusion of the abutment
- provide resistance to alter displacement

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- Sometimes contributes to indirect retention
- helps to build up the occlusal plane of a tilted tooth
- avoid plunging of food between the tooth and the clasp

Design Considerations

- The occlusal rest seat is a triangular-shaped depression, with its base at the marginal ridge & apex at the center of the tooth.
- Its margin should be smooth & gently curved
- The size of the occlusal rest should be one half the buccolingual width between the cusp tips
- one third to one half the mesiodistal width of the tooth
- If it is more than 90°, the forces acting on the prosthesis will not be transmitted.
- Hence, the prosthesis will slip from the abutment tooth.
- The rest seat can also be prepared on restorations like cast gold and amalgam.
- rest seats on amalgam can be used only for interim/ temporary partial dentures.
- Cast gold restorations on an abutment tooth can be used to Prepare rest seats for permanent prosthesis.

Scanned with CamScanner

(4) pontic design

The success of a FPD depends on the proper design of the pontic. If the pontic is not designed to restore function & esthetics. The chance of failure are drastically increased.

3 important factors that control the design of the pontic.

- Space available for the placement of pontic
- The contour of the residual alveolar ridge.
- Amount of occlusal load that is anticipated for that patient.

Edentulous space:-

The space is created due to the loss of a tooth is usually sufficient for the fabrication of a good pontic.

- do

residual ridge contour

During treatment planning the diagnostic cast should be thoroughly Examined. The contour of the ridge and texture of the soft tissue should be observed during intra oral Examination

Occlusal load on the pontic

- The functional relationship of the cusps of the pontic and the opposing teeth is the most critical consideration in the design of the pontic.
- hence, to restore proper function, the pontic should contain the same occlusal pattern as the remaining dentition.

Scanned with CamScanner

(5) Balanced occlusion:

- The simultaneous contacting of maxillary & mandibular with on right if left & in posterior and anterior occluded dent in centre & centric position developed to lower limit tipping & rotating of denture bases in relation to supplying structures.

Characteristic requirement

- All teeth of working side should glide evenly against opposing teeth.
- No style bone should provide any influence/ dimolish of other teeth
- There should be simultaneous contact during protrusion.

Types:

- unilateral balanced occlusion
- bilateral balanced occlusion
- protrusive balanced occlusion
- lateral balanced occlusion

Unilateral

- Seen on occlusal surfaces of teeth on one side when they occlude simultaneously with a smooth, unifguide.

Bilateral

- Seen when simultaneous contact occurs on both sides in centre & centric position.

protrusive balanced occlusion

- It is present when mandible moves in forward.
- There will be minimal simultaneous three-point contact present during lateral movement of mandible.

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Satish Kumar

1. Partial designs:- Occlusal rests:-

→ An occlusal rest can be defined as "A rigid extension of a partial denture which contacts the occlusal surface of the tooth"

Functions:

→ Transmit the stress along the long axis of tooth
→ Assist in distribution of occlusal load.
→ Prevent extrusion of abutment
→ Avoid plunging of food b/w tooth & clasp
→ Provide resistance to lateral displacement
→ Helps to build up the occlusal plane of a tilted tooth

Design considerations:-

→ Occlusal rest seat is a triangular shaped depression with its base at marginal ridge & apex at the centre of tooth
→ Its margins should be smooth & gently curved.
→ It shouldn't follow the contour of mesial [distal marginal ridge & triangular fossa.
→ Size of occlusal rest should be:-
  * 1 1/2 the buccolingual width b/w cusp & tips.
  * 1/3rd - 1/2 mesiodistal width of tooth.
→ Angle b/w the line drawn along the proximal surface of tooth & floor of rest seat should be less than 90°.
→ Rest seat can also be prepared on restorations like cast gold & amalgam.
→ Rest seats on amalgam can be used only for interim / temporary partial dentures.

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2. Balanced occlusion:

"The simultaneous contacting of maxillary and mandibular teeth on right & left & in posterior and anterior occlusal areas in centric & eccentric positions, developed to lessen or limit tipping & rotating of denture bases in relation to supporting structures.

Characteristic requirements:

→ All teeth of working side should glide evenly against the opposing teeth.
→ No single tooth should produce any interference/ disocclusion of other teeth.
→ There should be simultaneous contact during protrusion.

Types:

→ Unilateral balanced occlusion
→ Bilateral balanced occlusion
→ Protrusive balanced occlusion
→ Lateral balanced occlusion.

Unilateral balanced occlusion:-

→ Seen on occlusal surfaces of teeth on one side when they occlude simultaneously with a smooth, uninterrupted glide.

Bilateral balanced occlusion

→ Seen when simultaneous contact occurs on both sides in centric & eccentric positions.

Protrusive balanced occlusion:

→ It is present when mandible moves in forward

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direction of occlusal contacts are smooth & simultaneous anteriorly & posteriorly

Lateral balanced occlusion:-

→ There will be minimal simultaneous three-point contact present during lateral movement of mandible.

3) Survey line:-

→ A line drawn on a tooth or teeth of a cast by means of a surveyor for purpose of determining the positions of various parts of clasp a clasps

→ A survey line can also defined as "A line produced on a cast of a tooth by a surveyor making the greatest ht of contour in relation to the chosen path of insertion of a planned restoration.

Classification:-

1. High survey line:-

→ It passes from occlusal third in the mesial zone to occlusal third in distal zone.

→ When high survey line is present, the undercut will be deep & hence a wrought wire clasp which is more flexible should be used.

2) Medium survey line:-

→ It passes from the occlusal third in the mesial zone to the middle third in distal zone.

→ Aker's / Roach clasp is used for teeth with medium survey line.

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3) Low survey line:-

→ It is close to cervical third of tooth in both near & far zone.

→ Common in teeth with marked inclination.

4) Diagonal survey line:-

→ Runs from the occlusal third of near zone to cervical third of far zone.

→ Hence, a reverse circlet clasp is used.

(Q.) Pontic design:-

→ The success of FPD depends on proper design of pontic. If pontic is not designed to restore function & aesthetics the chance of failure are dramatically increase.

→ 3 important factors that control the design of pontic

- space available for placement of pontic.
- Contour of residual alveolar ridge.
- Amount of occlusal load that is anticipated for that patient.

Edentulous space:- The space created due to the loss of a tooth is usually sufficient for fabrication of good pontic.

→ But in many cases, due to long period of edentulousness the adjacent teeth tend to be tilted / drifted towards space.

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Residual ridge contour:-

→ During treatment planning the diagnostic cast should be thoroughly examined. The contour of the ridge & texture of soft tissue should be observed during intra oral examination.

Occlusal load on pontic:-

→ The functional relationship of cusps of pontic & opposing teeth is the most critic & consideration in design of pontic.

→ Hence to restore proper function, the pontic should contain the same occlusal pattern as the remaining dentition.

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① Survey line

A survey line is defined as "a line drawn on a tooth (or) teeth of a cast by means of a surveyor for the purpose of determining the position of the various parts of a clasp (or) clasps".

- A survey line can also be defined as "a line produced on a cast of a tooth by a surveyor (or) scriber making the greatest ht of contour in relation to the chosen path of insertion of a planned restoration" - GPT

Classification:

i) High survey line:

- This passes from the occlusal third in the near zone to the occlusal third in the far zone
- When a high survey line is present, the undercut will be deep & hence a wrought wire clasp which is more flexible should be used.

ii) Medium survey line:

- It passes from the occlusal third in the near zone to the middle third in the far zone
- Akers (or) Roach clasp is used for teeth with medium survey line.
- Akers clasp is preferable.

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iii) low Survey line.

- This survey line is closer to the cervical third of the tooth in both mesio-distal zone.
- A modified C-clasp is used for tooth with low survey lines

iv) Diagonal Survey line

This survey line runs from the occlusal third of the mesial zone to the cervical third of the distal zone.

Here, a reverse circlet clasp is used.

- It is more common on the buccal surface of canine and premolars
- It can be managed by using reverse action (Ackers pin)

(2) Pontic design

- The success of a FPD depends on the proper design of the pontic. If the pontic is not designed to restore function and aesthetics, the chances of failure are dramatically increased.

3 important factors that control the design of the pontic

- Space available for the placement of the pontic
- The contour of the residual alveolar ridge
- Amount of occlusal load that is anticipated for that patient

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Edentulous space:

The space is created due to the loss of a tooth is usualy sufficient for the fabrication of a good pontic. But in many cases, due to a long period of edentulousness the adjacent teeth tend to be tilted or drifted towards this space. In such cases proper pontic cannot be placed and the design of the pontic should be compromised.

Reduced ridge contour:

During treatment planning the diagnostic cast should be thoroughly examined. The contour of the ridge and texture of the soft tissues should be observed during intraoral Examination.

Occlusal load on the pontic

According to Stein "the basic requirement of a pontic is that it should be able to restore proper function".

The functional relationship of the cusps of the pontic and the opposing teeth is the most critical consideration in the design of the pontic

- thence, to restore proper function, the pontic should contain the same occlusal pattern as the remaining dentition.

Balanced occlusion

The simultaneous contacting of maxillary and mandibular teeth (on) right and left if it posterior and anterior occlusal areas in centric & eccentric position, developed to lesser a limit tipping or rotating of denture base in relation to supporting structures.

Characteristic requirements:

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- There should be simultaneous contact during protrusion.

Types:

- Unilateral balanced occlusion
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- protrusive balanced occlusion
- Lateral balanced occlusion

Unilateral balanced occlusion

- Seen on occlusal surfaces of teeth (or) one side when they occlude simultaneously with a smooth, uninterrupted glide.

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Bilateral balanced occlusion:

- Seen when simultaneous contact occurs on tooth sides in centric and eccentric positions

Protrusive balanced occlusion

- It is present when mandible moves in forward direction of occlusal contacts are smooth & simultaneous anteriorly and posteriorly.

Lateral balanced occlusion

- There will be minimal simultaneous three point contact present during lateral movement of mandible

(4) Occlusal Rest:

- An occlusal rest can be defined as 'A rigid extension of a partial denture which contact the occlusal surface of the tooth'.

Function of an occlusal rest

- Transmit stress along the long axis of the tooth
- Assist in distribution of occlusal load
- Prevent extrusion of the abutment
- provide resistance to tilter displacement
- Sometimes contributes to indirect retention
- helps to build up the occlusal plane of a tilted tooth

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Design consideration:

- The occlusal rest seat is a triangular shaped depression, with its base at the marginal ridge and apex at the center of the tooth.
- The margins should be smooth and gently curved.
- The size of the occlusal rest should be one half the Buccolingual width between the cusp tips.
- One third to one half the mesiodistal width of the tooth.
- If it is more than 90°, the forces acting on the prosthesis will not be transmitted.
- Hence, the prosthesis will slip from the abutment tooth.
- The rest seat can also be prepared on restorations like cast gold and amalgam.
- Rest seat on amalgam can be used only for interim/temporary partial dentures.
- Cast gold restorations on an abutment tooth can also be used to prepare rest seat for permanent prosthesis.

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(1.) Major connectors :

A part of a removable partial denture which connects the components on one side of the arch to the components on the opposite side of the arch

Major connector

Maxillary major connector.

- Single posterior palatal bar.
- Double palatal bar
- Single broad palatal plate
- palatal strap.
- Horseshoe connector
- closed horseshoe
- complete palate

Mandibular Major connector.

- lingual bar
- lingual plate
- Mandibular cingulum bar.
- sublingual bar
- kennedy bar.
- labial bar

Ideal requirements :

- Rigidity - major connector should not be flexible It should be rigid enough to uniformly distribute the occlusal forces acting on any portion of prosthesis.
- It should provide vertical support & protect soft tissues.
- It should provide a means of indirect retention wherever required.
- It should be comfortable to the patient
- It should not allow any food accumulation.
- It should be sub. cleansing.

→ Palatal bar - Narrow, half oval
Thickest point at centre

Indication : class - III

→ Palatal strap - most versatile
A-P dimension should not be less than 8mm

Indication : Kennedy's class - II

→ Antero posterior palatal bar -
palatal bar + palatal strap
2 bars joined by a flat longitudinal element

Horse shoe connector :-
- consists of a thin band of metal
- should be symmetrical equal height on both sides

Design :

Outline primary stress bearing area → Outline non bearing areas → outline of connector areas → selection of connector type → unification

(2) Abutment selection in FPD :

factors effecting abutment selection.

1) path of function - Incisors
- clenching
- tongue thrust & bite

2) Masticatory dynamics. - Diet
- Dynamics.
- physical status.
- age & sex.

3) Position within the arch.

4) arch length

5) arch curvature.

6) span length.

7, crown length
8, clean root ratio
9, PDL area & surface area
10, Root configuration.
11, long axis relationship.
12, mesially tilted molar
13, occlusal anatomy
14; Buccolingual dimension of teeth
15, mobility.
16, age of patient
17, Endodontically directed abutments
18, Pic abutment
19, vertical force cause the component to rotate.

(3) Impression techniques in CD

a.) Amount of pressure used
- Pressure technique
- minimal pressure technique
- Selective pressure technique

b.) Based on the position.
- open mouth.
- close mouth.

c.) Based on method of manipulation.
- hand manipulation
- functional movement.

1. Mucostatic
2. Mucocompositive
3. Selective pressure.

Mucostatic Impression Technique:

- Introduced by Richardson & henry page
- materials used are POP & alginate.
- utilises an oversized tray.
- can be used in medically compromised ex: severe resorption of ridges.
- These dentures will have good stability but poor retention.

Muco compressive Impressive technique

- Proposed by various zones.
- In materials used Impression compound & ZOE
- Records oral tissues in a functional & displaced form.
- good retention.
- residual ridge resorption is more often.

(4.) Obturators:

It is used to close congenital tissue openings especially hard palate.

uses of obturators:

- It reduces oral contamination.
- Permits deglutition.
- It reduces the period of hospitalization.
- Reduces the period of hospitalization.

Types of obturators:

- Interim obturators.
- definitive obturators:
- palatal obturator.

Functions of an obturator

- It can help to reshape the defect
- It also improves speech possible
- It can benefit the mark of patients with maxillary defects.
- When deglutition & mastication are impaired, it can be used to improve functions.
- It can be used to keep the wound clean.
- It can enhance the healing of traumatic surgical defects.

(5.) Snap lock dentures,

- It consists of lobial / buccal retaining bar, hinged at one end & locked with a latch at the other together with the reciprocating lingual plate to gain a max retention & stability.

Indications,

- Too few remaining natural tooth for a RPD of conventional claps.
- Remaining teeth too mobile to serve as abutment teeth to conventional design.
- Position of remaining teeth not favourable for a conventional design.
- To retain prosthesis for patients who has lost large segments of teeth & alveolar ridge through traumatic injury.

Contraindications,

- Post irradiation of the head & neck regions.

- Systemic conditions that effects healing.
- cardiac / endocrine gland, ~~disease~~ disturbances
- Psychological disorder.

Fabrication of ring lock partial Denture

- Surveying & design.
- making the impression.
- Occlusal development
- insertion
- Post insertion care
- frame work fabrication.
- tray selection.
- Jaw relations.
- Selection of impression material.

Name :- Tejaswi panigrahi

Major connectors:-

A part of a removable partial denture which connects the components on one side of the arch to the components on the opp side of the arch.

General Ideal Requirements for Maxillary and Mandibular Major Connectors.

- Rigidity
- It should provide vertical support and protect soft tissues
- It should be comfortable to the patient
- It should not allow any food accumulation
- It should be self cleansing.

- Design consideration for all Major connectors
- Maxillary Major connectors.

Major connector

- Maxillary Major connector
  - Single posterior palatal bar
  - Double palatal bar
  - Single broad palatal bar
  - palatal strap
  - Horse shoe connector
  - Closed horse shoe
  - Complete palate
- Mandibular Major conductor
  - Lingual bar
  - Lingual plate
  - Mandibular cingulum bar
  - Sublingual bar
  - Kennedy bar
  - Labial bar.

Single posterior palatal bar:-

Narrow half oval cross-section, thickest at the centre

Indication:- For interim partial denture

disadvantages :- It cannot be used anterior to the premolar region due to interference to the tongue

Palatal strap

Most versatile Major connector

This strap Extends over 3 planes namely:-

Vault (or) horizontal plane

Right and left saterosslopes of the palate

Indications:-

Unilateral distal Extension partial denture

Advantages:-

very thin metal is present

disadvantages:-

large palatal coverage

Single broad palatal Major connector

called as anatomic replica palatal major connector.

- palate that covers the area b/w two or more edentulous space

Indications:- Cases with v(or) U shaped palate

Adv:- provides good vertical support

disadv:- Can cause papillary hyperplasia

Anteroposterior or Double palatal Bar:-

- The Margins of the strap should lip lie on the valley and not On the crest of the rugae.
- The anterior strap is narrower than a Conventional palatal strap.

Indications:

Cases with large inoperable palatal torus

Adv:- Rigid
Strong

disadv:- Limited support from palate

(2) Obturator:-

It is used to close congenital tissue growing, especially hard palate

Uses of obturator:-

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- permits deglutition
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- Reduces the period of hospitalization

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- It consists of a labial / buccal retaining bar, lingual at one End and locked a taken at the other, together with the reciprocating lingual plate to gain a Max. Restoration and Stability

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- To retain prosthesis for patients who have lost large segments of teeth and alveolar ridge through traumatic injury.

Contraindications

- post irradiation of the head and neck region
- Systemic conditions that affect healing

Fabrication of Swing lock partial denture

Surveying and design
Making the Impression
Occlusal development
post insertion care
tray selection
Jaw relations

4. Factor affecting abutment selection

1. parafunction
   - Bruxism
   - clenching
   - tongue thrust & size
2. masticatory dynamics
   - diet
   - dynamics
   - physical status
   - age & sex
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4. arch length
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6. Span length

7. Crown length
8. Crown - root ratios
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① mucostatic
② mucocompressive
③ selective pressures

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