1. Implant Supported Fixed Partial Denture

Implant Supported Fixed Partial Denture

Nopsaran Chaimattayompol, DMD, MPH
Assistant Professor and Division Head of Fixed Prosthodontics and Implant Dentistry

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2. Predictable Implant Prosthesis

Predictable Implant Prosthesis

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3. Implant FPD Workflow

Implant FPD Workflow

- Treatment planning
- Implant-level impression
- Abutment selection
- Abutment connection
- Provisionalization
- Abutment-level impression
- Fabrication of working cast/ record base
- Framework/porcelain try in
- Delivery and recare

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4. Outline

Outline

- Treatment Planning/Type of prosthesis
- Space analysis
- Radiographic/Surgical templates
- Implant impression
- Implant abutments and how to select
- Case presentations

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5. Treatment Planning

Treatment Planning

Pre-implant surgery
- Provide appropriate tx options
- Occlusal analysis
- Space analysis
- Implant selection—size and system

Post-implant surgery
- Review previous tx plan—sometime need revision
- Occlusal analysis
- Space analysis

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6. Space Analysis

Space Analysis

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7. Implant Impression

Implant Impression

- Implant-level impression
- Abutment-level impression

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8. Implant Impression

Implant Impression

- Pick up type
- Transfer Type

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9. Implant Abutments+AAAs-based on type of prosthesis

**Implant Abutments**

*based on type of prosthesis*

**For screw retained prosthesis**

For cement retained prosthesis

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10. Abutment Selection

**Abutment Selection**

**Extraoral**
- Require implant level-impression
- Allow clinician to select appropriate abutment
- Allow clinician to fabricate provisional prosthesis before clinical appointment

**Intraoral**
- Require high level of experience
- Less time consuming but may not always achieve predictable outcome

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11. Abutment Selection Criteria

Abutment Selection Criteria

- P=Position
- A=Angulation
- I=Interocclusal distance
- T=Tissue depth and contour

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12. Session 5 Implant FPD: Slide 14

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13. Session 5 Implant FPD: Slide 15

14. Session 5 Implant FPD: Slide 16
15. Session 5 Implant FPD: Slide 17

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16. Session 5 Implant FPD: Slide 18

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17. Case #1 Pre-Implant surgery+AAs-Treatment Planning

Case #1 Pre-Implant surgery
Treatment Planning

- Mounted diagnostic cast
- Diagnostic wax up
- Radiographs
- Consultation

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18. Diagnostic set up/wax up

Diagnostic set up/wax up

- To fabricate radiographic and surgical template

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19. Method to fabricate radiographic/surgical template

Method to fabricate radiographic/surgical template

- Use denture duplicator
- Use thermoplastic template

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20. Session 5 Implant FPD: Slide 22

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21. Session 5 Implant FPD: Slide 23

22. CAT Scan

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CAT Scan

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23. Session 5 Implant FPD: Slide 25

24. Session 5 Implant FPD: Slide 26
25. Session 5 Implant FPD: Slide 27

26. Session 5 Implant FPD: Slide 28
29. Session 5 Implant FPD: Slide 31

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30. Session 5 Implant FPD: Slide 32

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31. Abutment Selection

Abutment Selection

- Multi unit Abutment (for screw retained prosthesis)

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32. Custom Abutment

Custom Abutment

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33. Multi Unit Angled Abutment

Multi Unit Angled Abutment

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34. Session 5 Implant FPD: Slide 36

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35. Abutment Connection

36. Abutment Level Impression
37. **Abutment Level Impression**

**Abutment Level Impression**

<table>
<thead>
<tr>
<th>Tapered impression coping</th>
<th>Square impression coping</th>
</tr>
</thead>
<tbody>
<tr>
<td>• One-piece impression coping</td>
<td>• Two-piece impression coping—coping and guide pin</td>
</tr>
<tr>
<td>• Must reposition coping in the impression</td>
<td>• Coping stays in the impression</td>
</tr>
<tr>
<td>• Easier</td>
<td>• Relatively difficult in the ‘limited access’ area</td>
</tr>
<tr>
<td>• Suitable for short inter-arch distance</td>
<td>• Must use open top tray</td>
</tr>
<tr>
<td>• Must use close top tray</td>
<td></td>
</tr>
</tbody>
</table>

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38. **Session 5 Implant FPD: Slide 40**
39. ‘Send Patient Home with Protective Cap’

40. Forming simulated soft tissue implant working cast (at abutment-level)
41. Forming simulated soft tissue implant working cast (at abutm...)

**Forming simulated soft tissue implant working cast (at abutment-level)**

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42. Verification Cast Technique

**Verification Cast Technique**

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43. Verification Cast

Verification Cast

44. Fabrication of Implant Provisional Prosthesis

Fabrication of Implant Provisional Prosthesis

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45. Session 5 Implant FPD: Slide 47

46. Framework Try in

Framework Try in

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47. Intraoral Soldering

Intraoral Soldering

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48. Cast Modification

Cast Modification

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49. Porcelain Application

Porcelain Application

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50. Porcelain Try in

Porcelain Try in

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51. **Delivery**

**Delivery**

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52. **Complete Arch Implant Supported FPD**

**Complete Arch Implant Supported FPD**

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53. Complete Arch Implant Supported FPD

Complete Arch Implant Supported FPD

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54. Complete Arch Implant Supported FPD

Complete Arch Implant Supported FPD

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55. Complete Arch Implant Supported FPD

Complete Arch Implant Supported FPD

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56. Session 5 Implant FPD: Slide 58

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Complications

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