

The All-on-4® Treatment Concept:

10 years of Successful Patient Care & What We've Learned Along the Way

CONTOURS
ORAL SURGERY

Reena Talwar, DDS PhD FRCD(C)
Oral & Maxillofacial Surgeon
Associate Clinical Professor – University of Alberta

1

Treating the Edentulous (or soon to be) Patient

2

Patient Population

- *Denture or partial denture wearer for *10 + year*
- *Empty Nester – *Divorced*– Widow/Widower
- *Wants to improve *Esthetics & Function*
- *Looking to improve their *Quality of Life*

3

The Initial Consult

- *Heard about implants from a *friend or family* member
- *Curious about *Timeline & Cost*
- *Knows very little about *"All"* of the options
- *Worried about *not having teeth* during entire process
- *Loves the idea of a *"One-Stop-Shop"*
- *Appreciative of a *"Fixed Cost"* approach

4

Digital Implant Diagnosis & Treatment planning

- * In-office 3D imaging (i-CAT CBCT)
- * Assessing available bone volume
- * Identifying anatomical limitations
- * Intraoral Scanning
- * Chairside treatment planning
- * Demonstrating treatment options to the patient

"a picture is worth a thousand words"

5

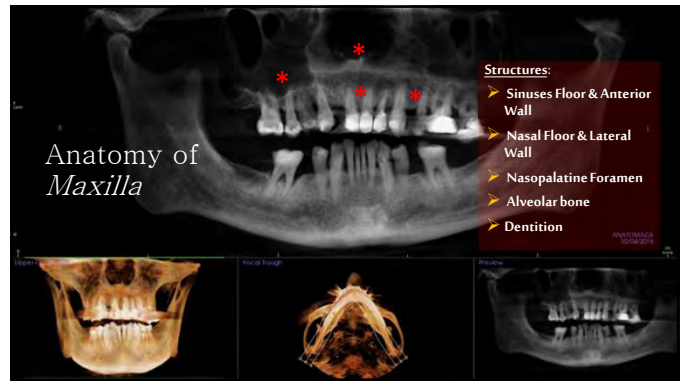
Anatomy of Maxilla

© Primal Pictures 2011

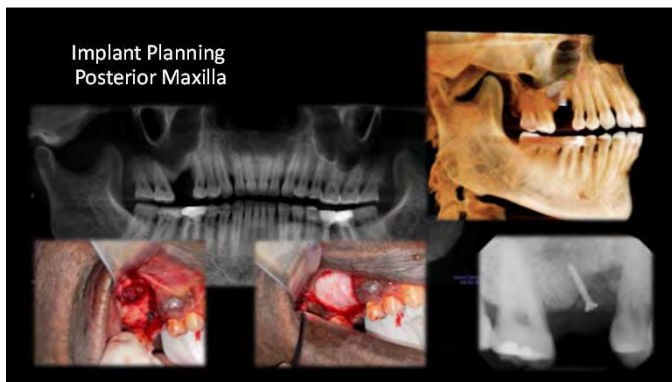
6



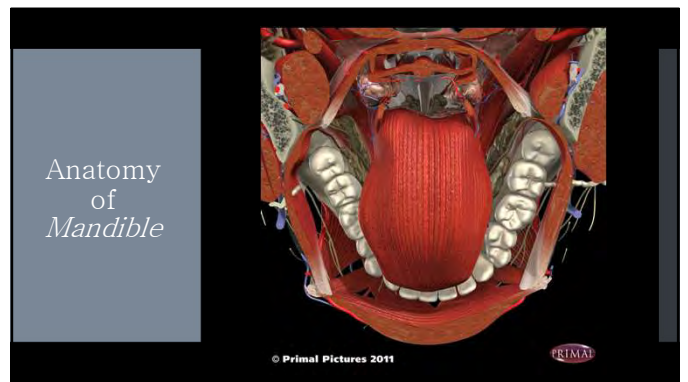
7



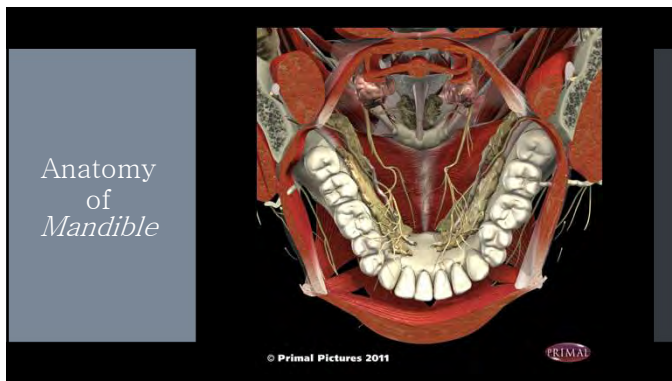
8



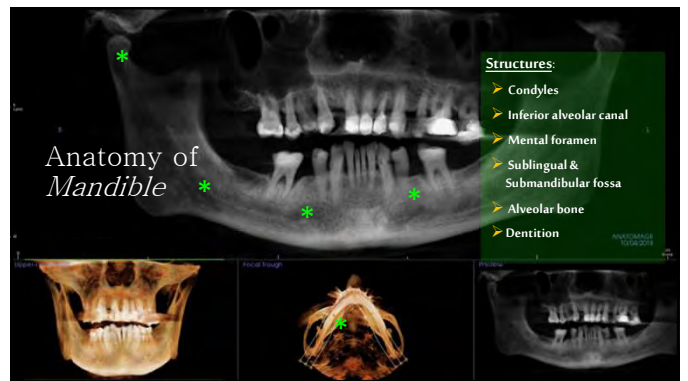
9



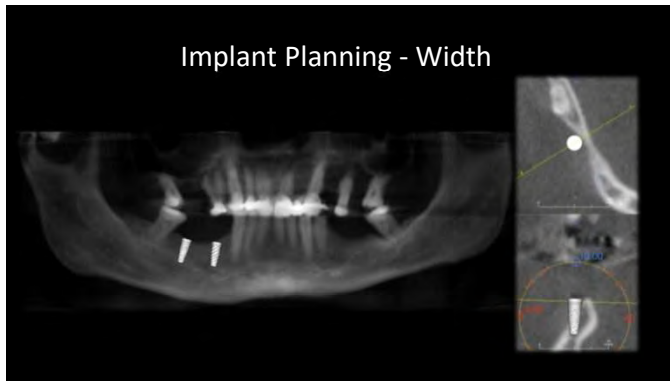
10



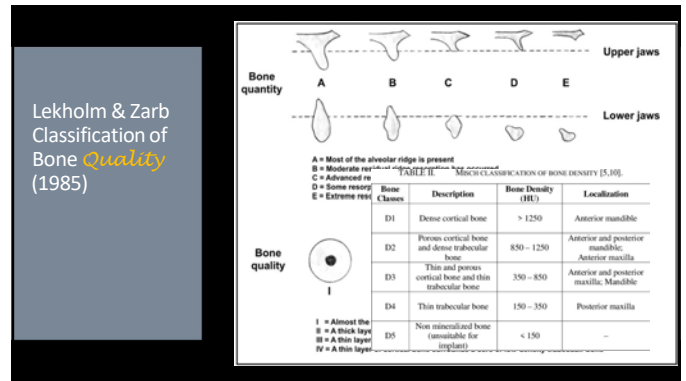
11



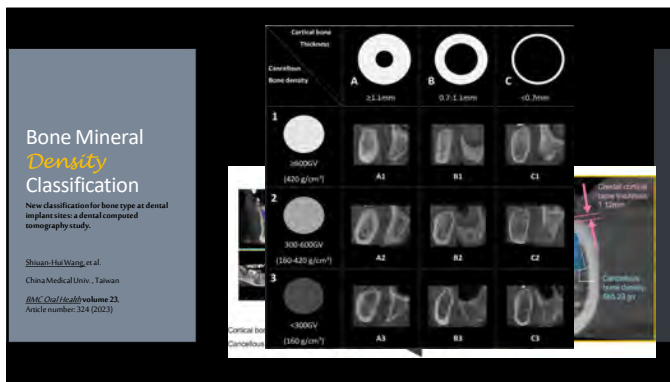
12



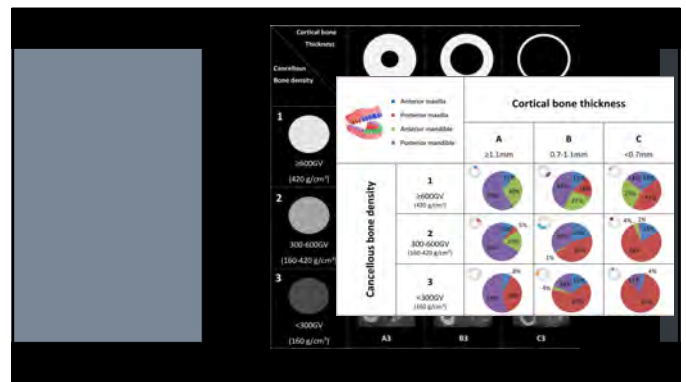
13



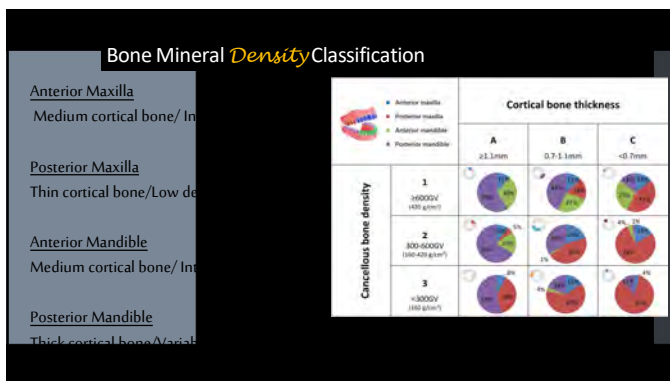
14



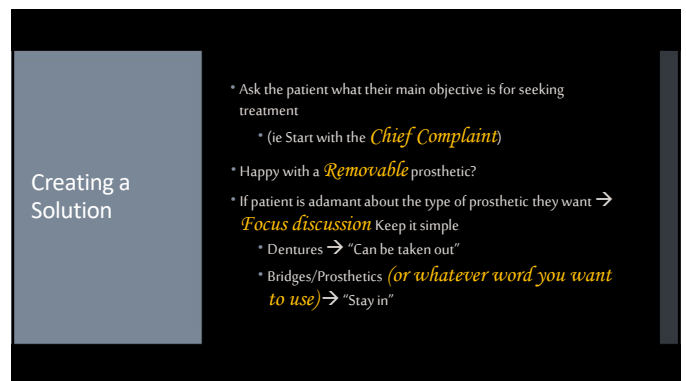
15



16



17

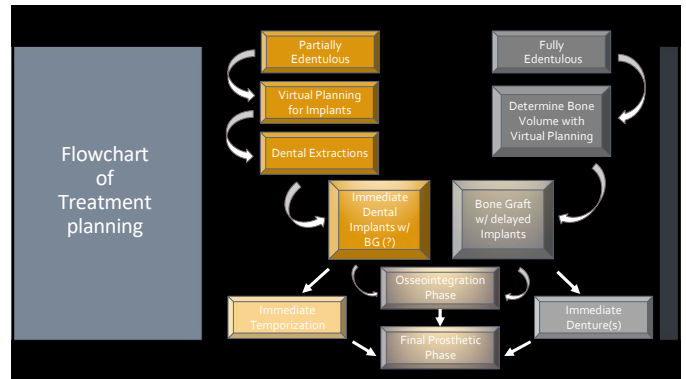


18

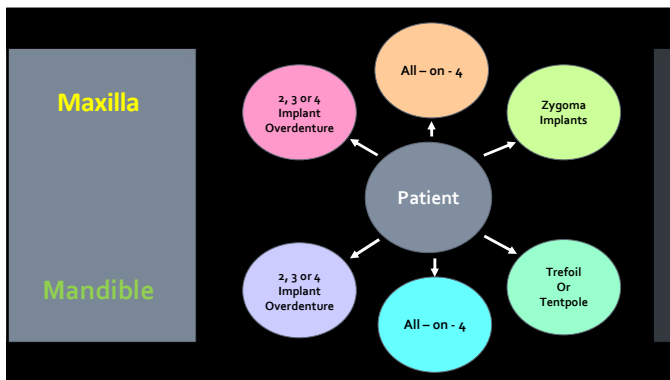
Creating a Solution

- Show them models or images of various treatment plan options
 - Best to have a *powerpoint pdf or flipchart* ready for viewing
 - Avoid "graphic" images
- Give them literature or a website for reference
 - <https://www.nobelbiocare.com/content/patient/international/en/home.html>
- Schedule them for a "Part II Consult" – no charge
- Have your *Implant Coordinator* stay in touch with the patient

19



20



21



22

All-on-4® Treatment Concept

Developed by Dr. Paulo Malo, the All-on-4® treatment concept is a revolutionary approach to full-arch dental restoration. It allows patients to receive a complete, fixed, and functional dental arch with **only four implants**.

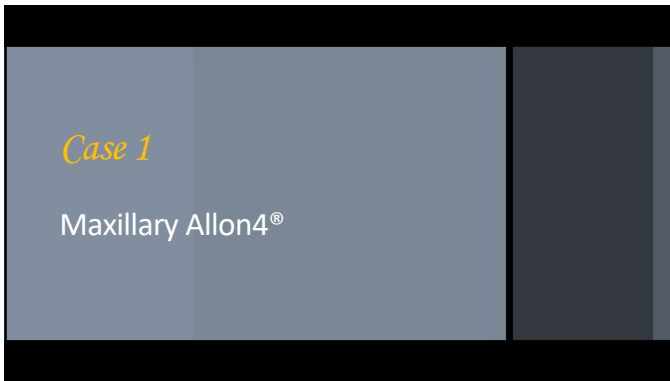
23

All-on-4® Treatment Concept

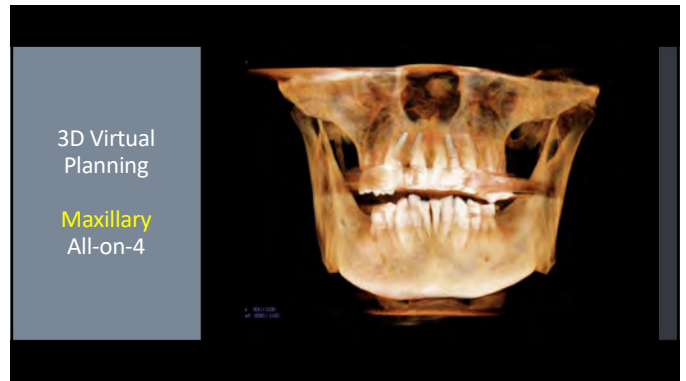
Benefits of the Vertical and Angled orientation:

- "Trussing Effect"
- Avoiding vital structures
- No Bone Grafting
- Increased Restorable Arch Length

24



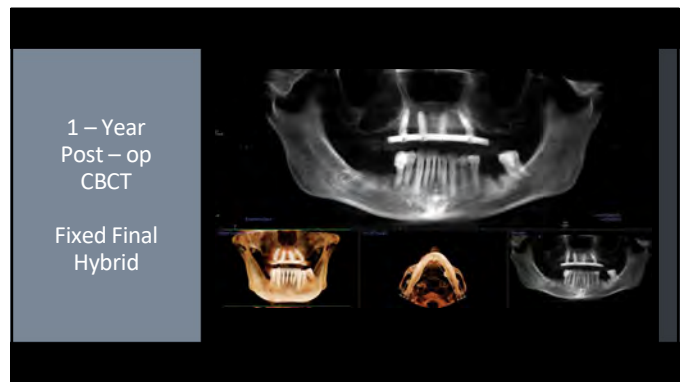
25



26



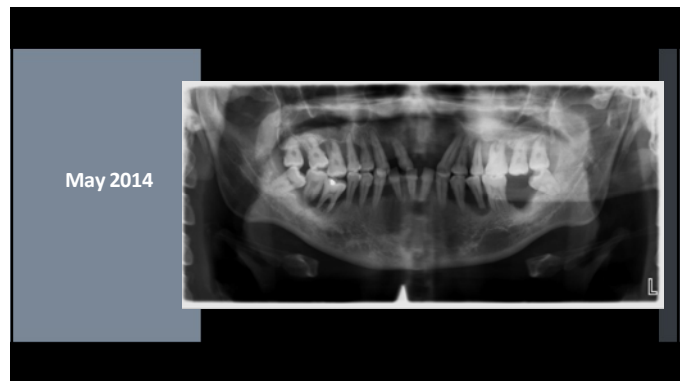
27



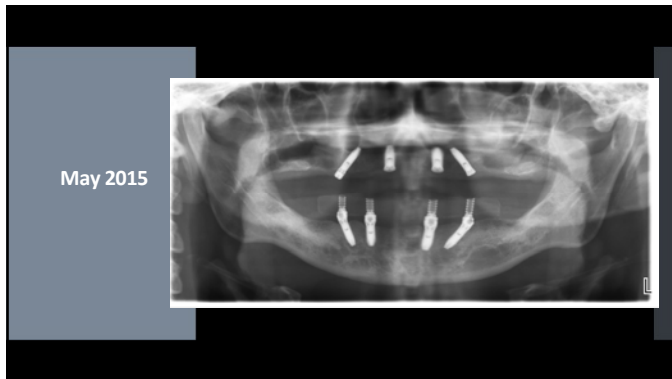
28



29



30



31



32



33

How is it *Similar* to other fixed options?

- *Final Prosthetic is a fixed hybrid
- *Prosthetic is *retained by implants* and *in close contact* with soft tissues
- *Screw retained prosthetic design
- *Excellent *function and esthetics*

34

Why its *Different* from other fixed options?

- *Requires only 4 standard implants
- **Trussing* effect improves cross arch stability and distribution of forces
- *Multiple design options for the final prosthetic
- **Acrylic teeth* on a Titanium bar *final prosthetic* allows for ease of repair

35

Prosthetic Solutions for the All-on-4®

36


All-on-4®
Zirconia Bridge

Pros:

- Esthetics

Cons:

- Cost
- Weight
- Difficulty with Repair
- Opposing Dentition Wear



37


All-on-4®
Titanium Bar – Acrylic Teeth

Pros:

- Cost (fabrication & repair)
- Light Weight
- Durable

Cons:

- Wear/Fracture of Prosthetic Dentition



38


All-on-4®
Implant Bridge Titanium

Pros:

- Esthetics
- Durability

Cons:

- Cost of Fabrication & Repair



39


All-on-4®
Implant Bar Overdenture

Pros:

- Cost
- Ease of Fabrication & Repair
- Support & Esthetics

Cons:

- Hygiene
- Wear/Fracture of Prosthetic Dentition

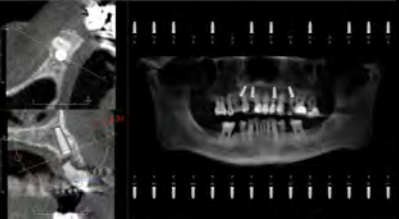


40

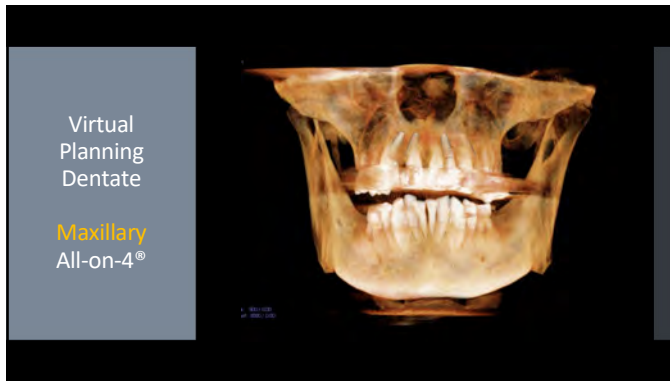
Virtual Planning Allon4®

41

Virtual Planning
Maxillary All-on-4®



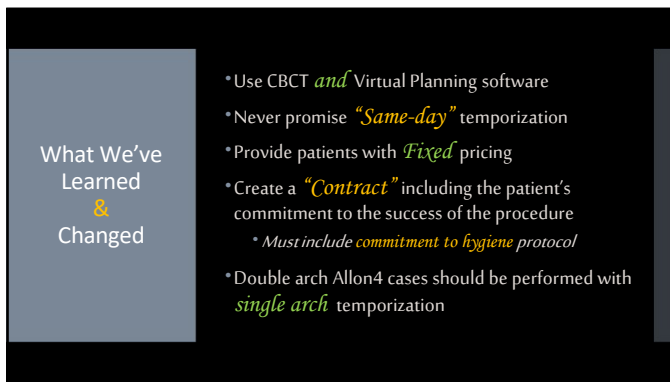
42



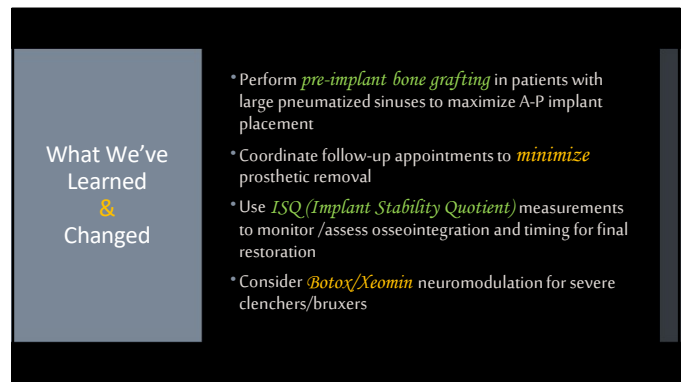
43



44



45



46



47



48

What We've Learned ... *Surgery*

49

What We've Learned & Changed

* Use *Internal connections* with *Platform Shift* Design

50

What We've Learned & Changed

- * Maintain a *variety* of implant sizes and types
- * Communication regarding *bone* reduction
- * Use *Intravenous (neuroleptic) sedation/ General Anesthesia* to maximize the patient's comfort
- * *Non-resorbing, Teflon Sutures* reduce inflammation and are less likely to lock into impression material
- * Administer *neuromodulator* at/before implant surgery appointment

51

Allon4® Immediate Temporization

"Same-day Conversion"

52

Determine & Verify *Vertical Dimension*

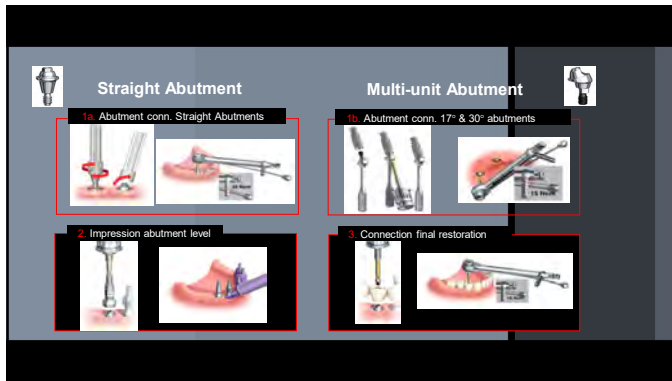
53

Select Appropriate Abutment

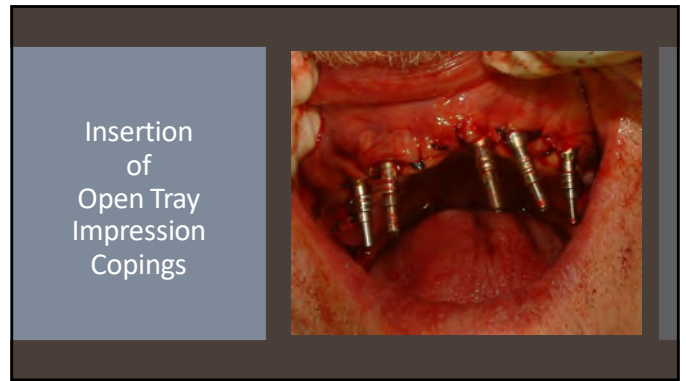
Straight (1-5 mm)

Angled 17° or 30° (2-5mm)

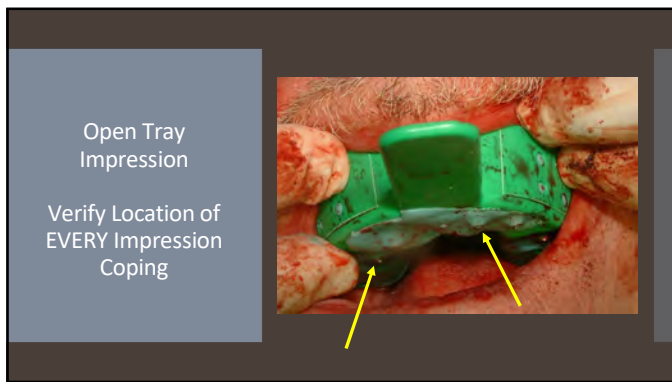
54



55



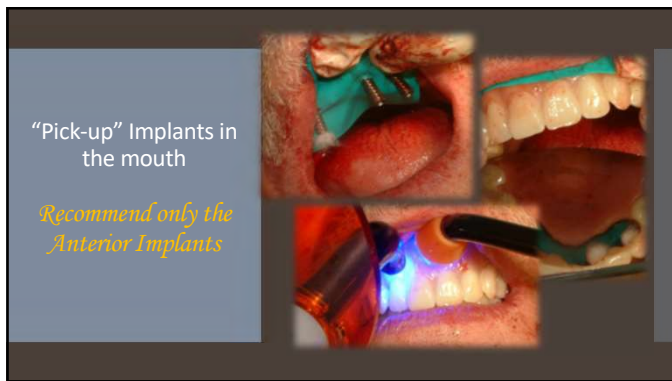
56



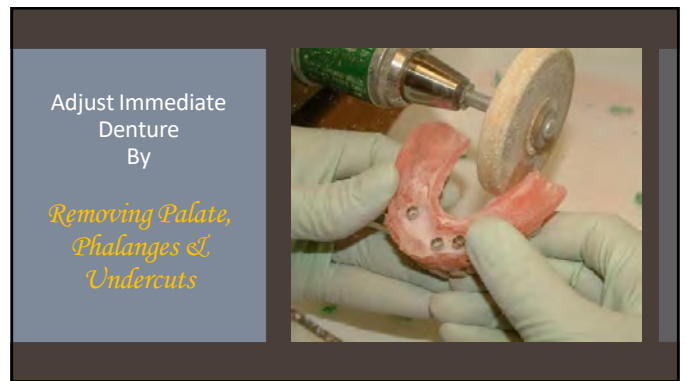
57



58



59



60

Convert Denture to Fixed Temporary Full Arch Prosthetic

Ovate Pontic Design for Tissue Contouring

61

Insertion of Temporary Fixed Prosthetic & Occlusal Adjustment

Fill Abutment Screw Access Holes

62

What We've Learned ...

Prosthetics

63

What We've Learned & Changed

- * Select *prosthetic design* based on Anatomy, Function, Esthetics and Dexterity
 - * Removable vs. Fixed?
 - * With/without phalange (*Lip Support*)
- * Fabricate *new immediate dentures* for the procedure
- * Prepare the patient for a *shorted occlusal arch*
- * Prepare for *same day* or *within 48-hour* occlusal check and soft relines

64

What We've Learned & Changed

- * Utilize *Fiber Force®* (SYNCA) to reinforce the temporary hybrid prosthetic
- * Use *T-scan technology or similar* to assess bite forces and adjust occlusion
- * *Prosthetic reline* monthly until
- * *ISQ testing* on op and final p

65

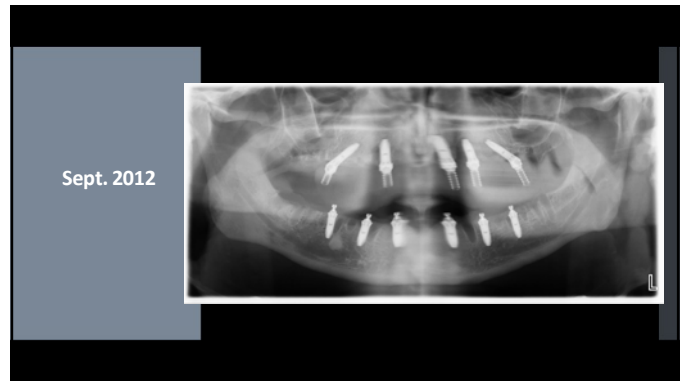
What We've Learned & Changed

- * Utilize *Fiber Force®* (SYNCA) to reinforce the temporary hybrid prosthetic
- * Use *T-scan technology or similar* to assess bite forces and adjust occlusion
- * *Prosthetic reline* monthly until

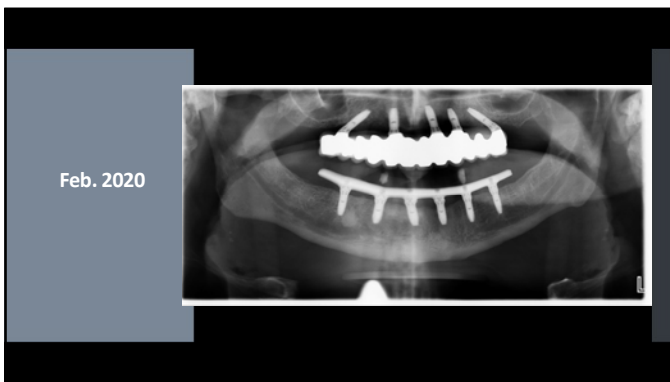
66

Case 2
Maxillary Allon4®
&
Mandibular 6-implant Hybrid

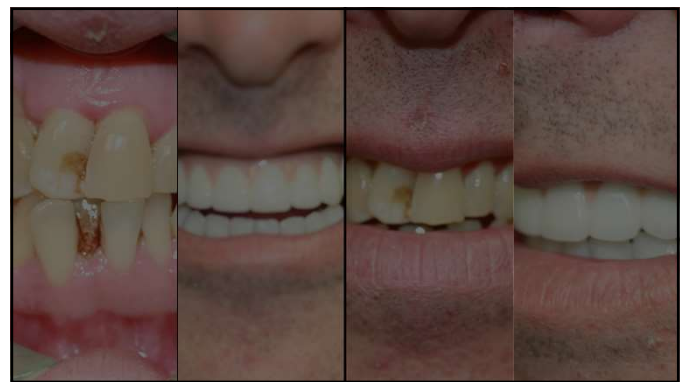
67



68



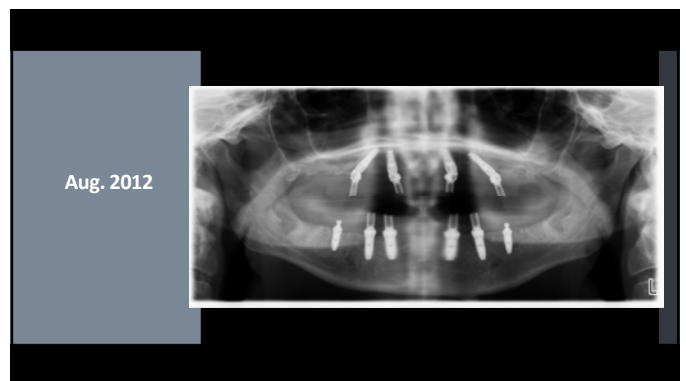
69



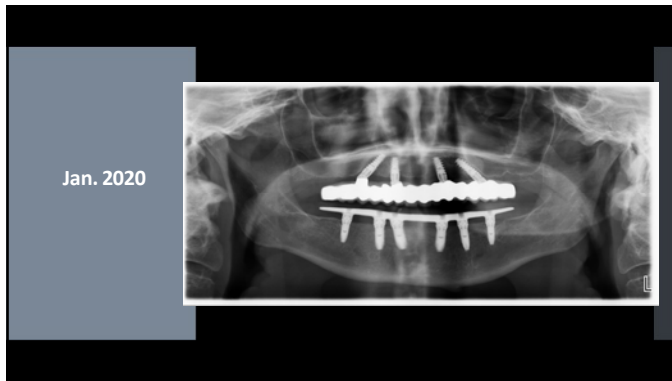
70

Case 3
Maxillary Allon4®
&
Mandibular 6-implant Hybrid

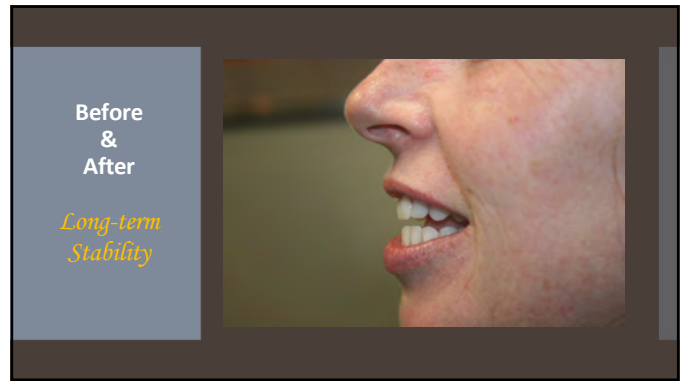
71



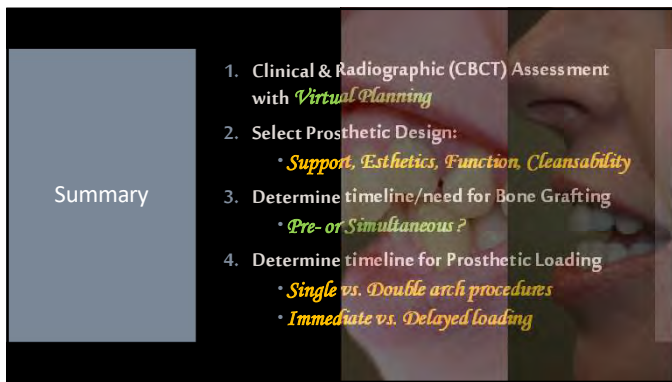
72



73



74



75



76



77