Deep Class II with severe anterior wear case full mouth reconstruction Reference Points to Provisionals

PT: Nicholas
Dr. Login

Learning points from this Case

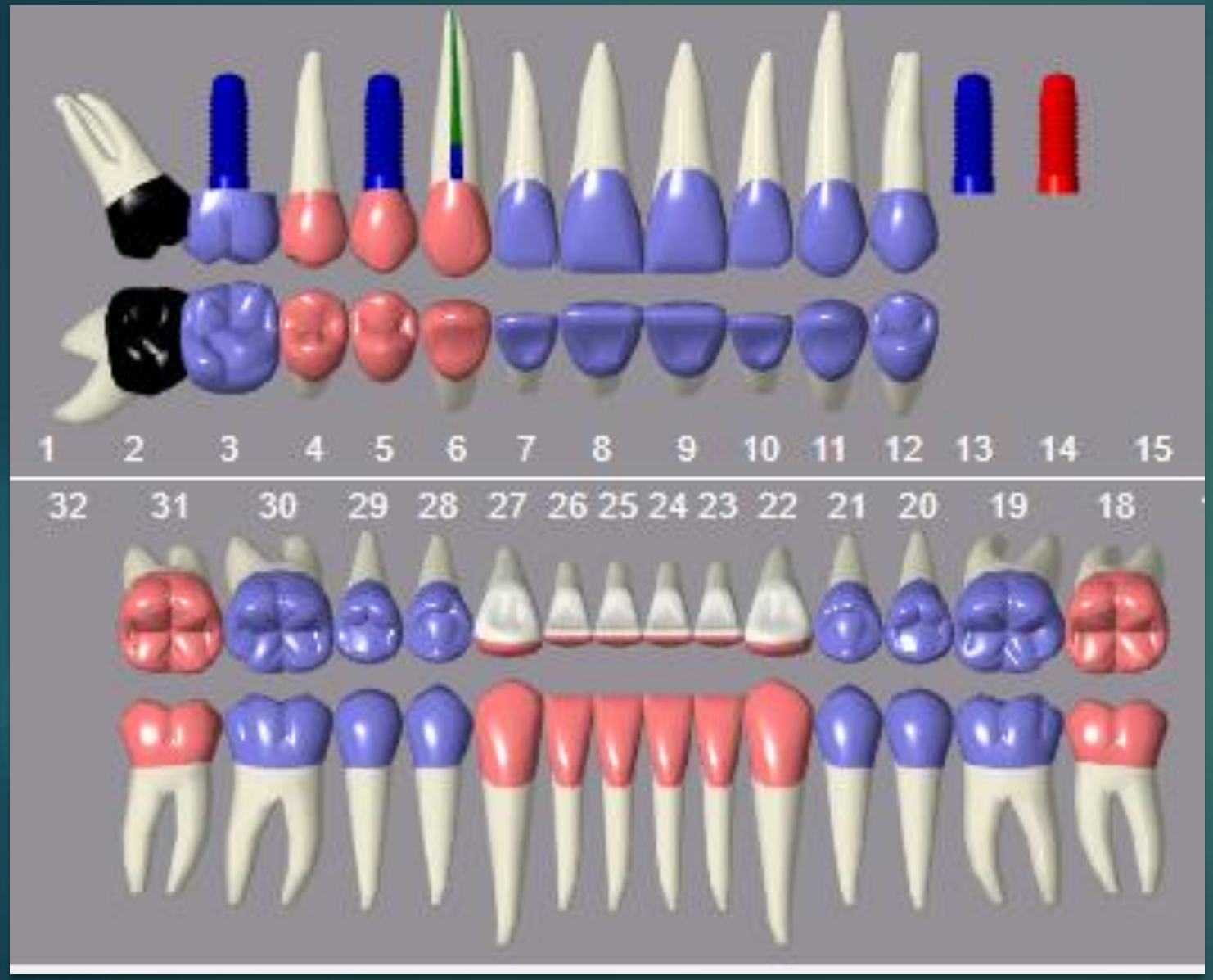
1. Diagnosis: advanced wear of anterior teeth (>50% tooth height loss)
2. Dental Class II Deep Anterior Overbite- class II
3. Restoring functional planes of occlusion (curve of spee)
4. increase in VDO
5. Implant surgery

6. Documentation: Records visit, Prep Design, cosmetic crown lengthening, Functional Provisionals . Definitive restorations to be completed following integration of implants

7. FMR complexity Level 4

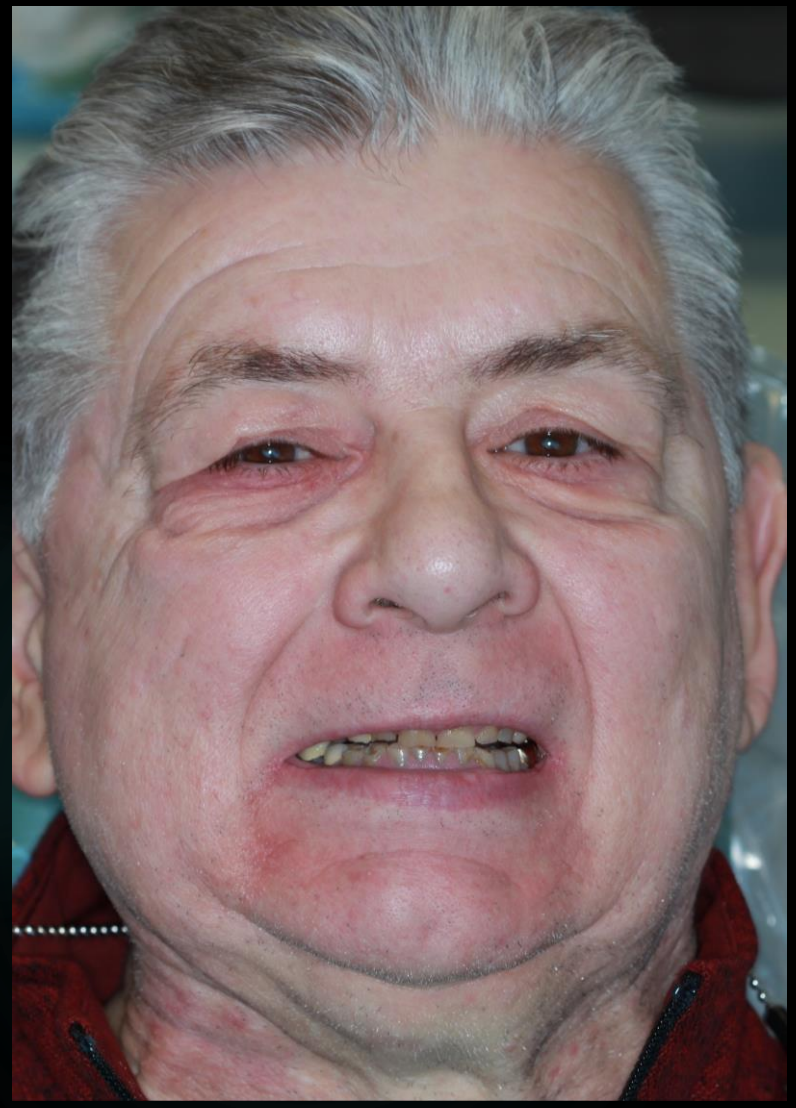
Visualizing this Treatment Plan

- Reference Points: (Document with calipers and Photos)
  - Identify anterior and posterior vertical stops (with artis foil)
  - Ideal central incisor length – relationship to lips
  - Gingival and Incisal Edge Heights of Contour, symmetry, smile line
  - Bite Relationship at initial and proposed VDO (CEJ to CEJ)
    - flowable composite- level curves of Spee
    - Black magic marker level curve of Wilson
- New view Preview or wax rims- initial proposal
- Study models and Diagnostic Wax up



Proposed Treatment:

4 implants, crowns, veneers



Full Face and Lateral Headshots

Records Visit:
1/7/2019

Chief Complaints from January 2019

- “I want to be able to smile proudly”
- “I have a history of dry mouth and grinding”
- “I didn't take care of my teeth before and I want to now”
- “I don't want dentures or fake teeth”
- “I am interested in bridges or other options”
- “I wear a device for sleep apnea at night and I wear a night guard”

Follow up concerns

- "My upper right bridge has been coming loose and about a month ago Dr. L put it back in and it came loose again. About 2 weeks ago, while eating my upper right partial came loose along with the tooth in the middle and I swallowed it whole. There is still a part of the tooth left in my gums. I have no pain in that area."

Smile Photos and Retracted View

Pre-Treatment Occlusal and Buccal Views

Buccal View

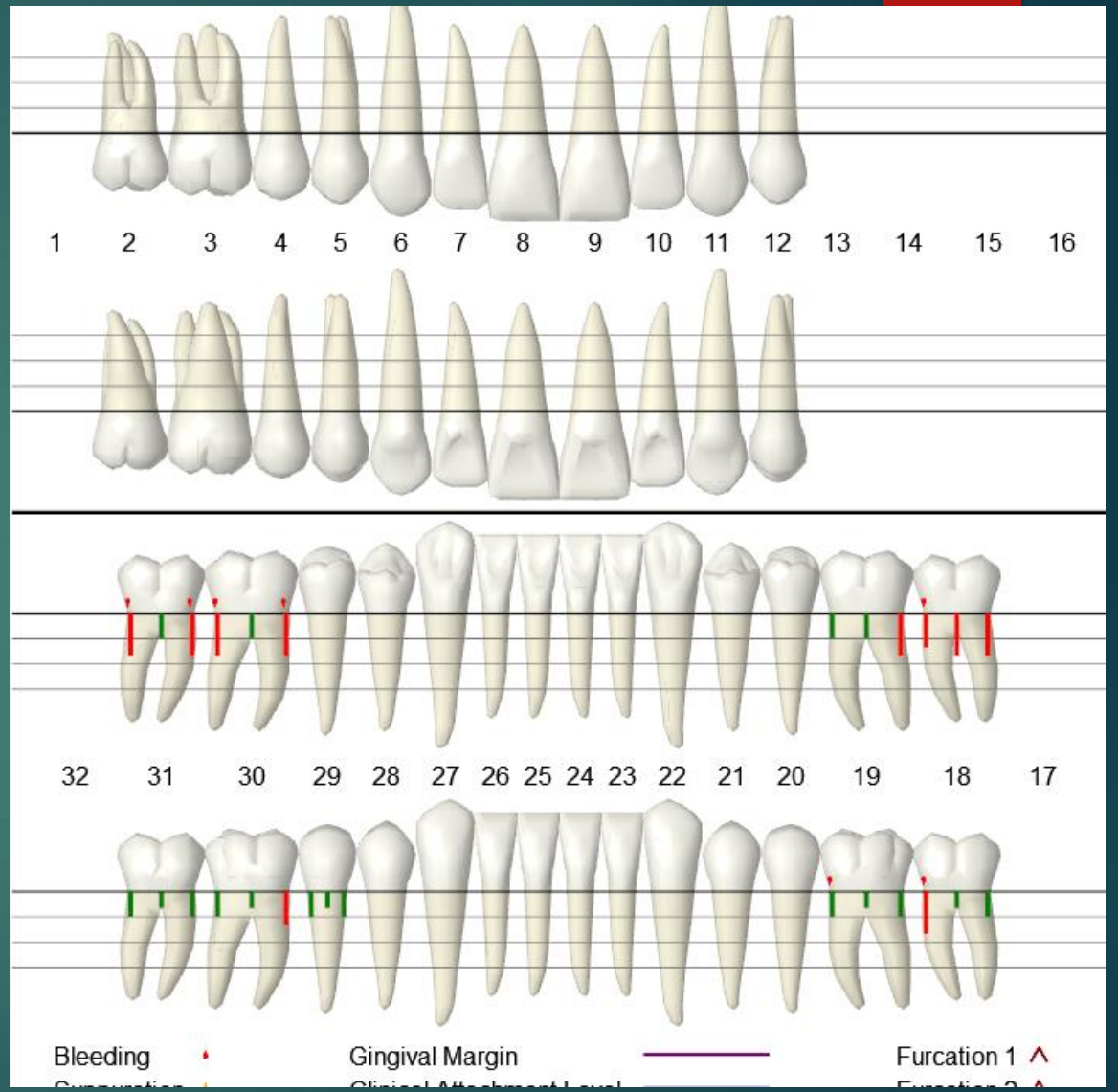
Occlusal Views

Buccal View

Periodontal Evaluation

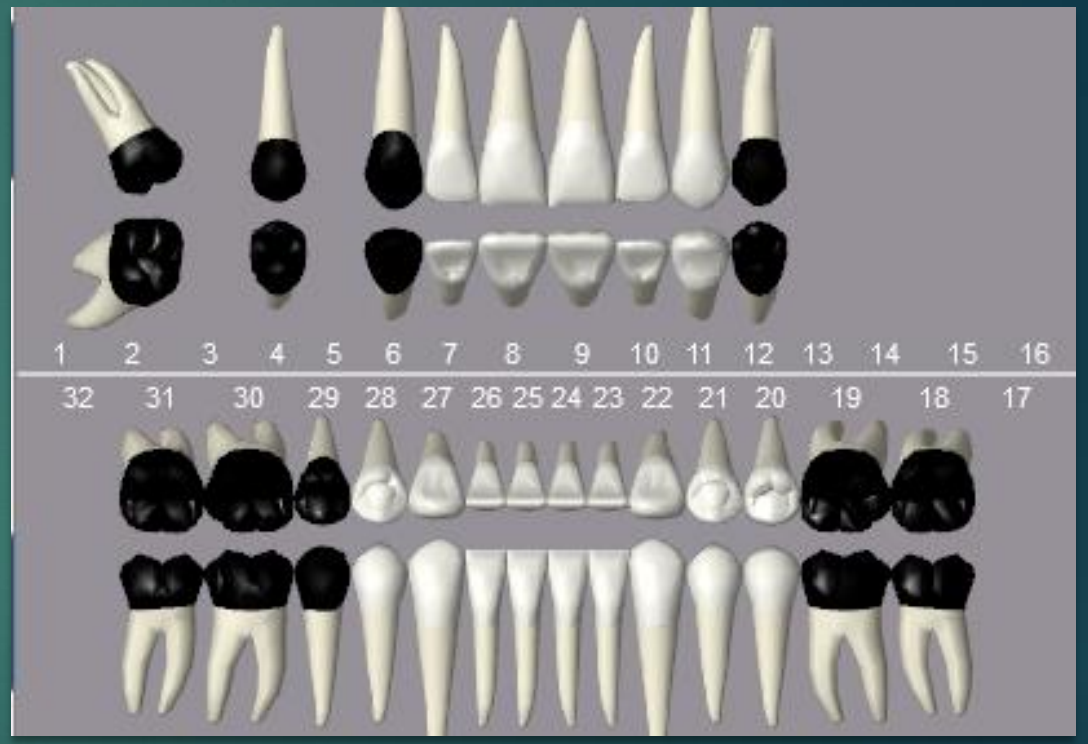
Summary :

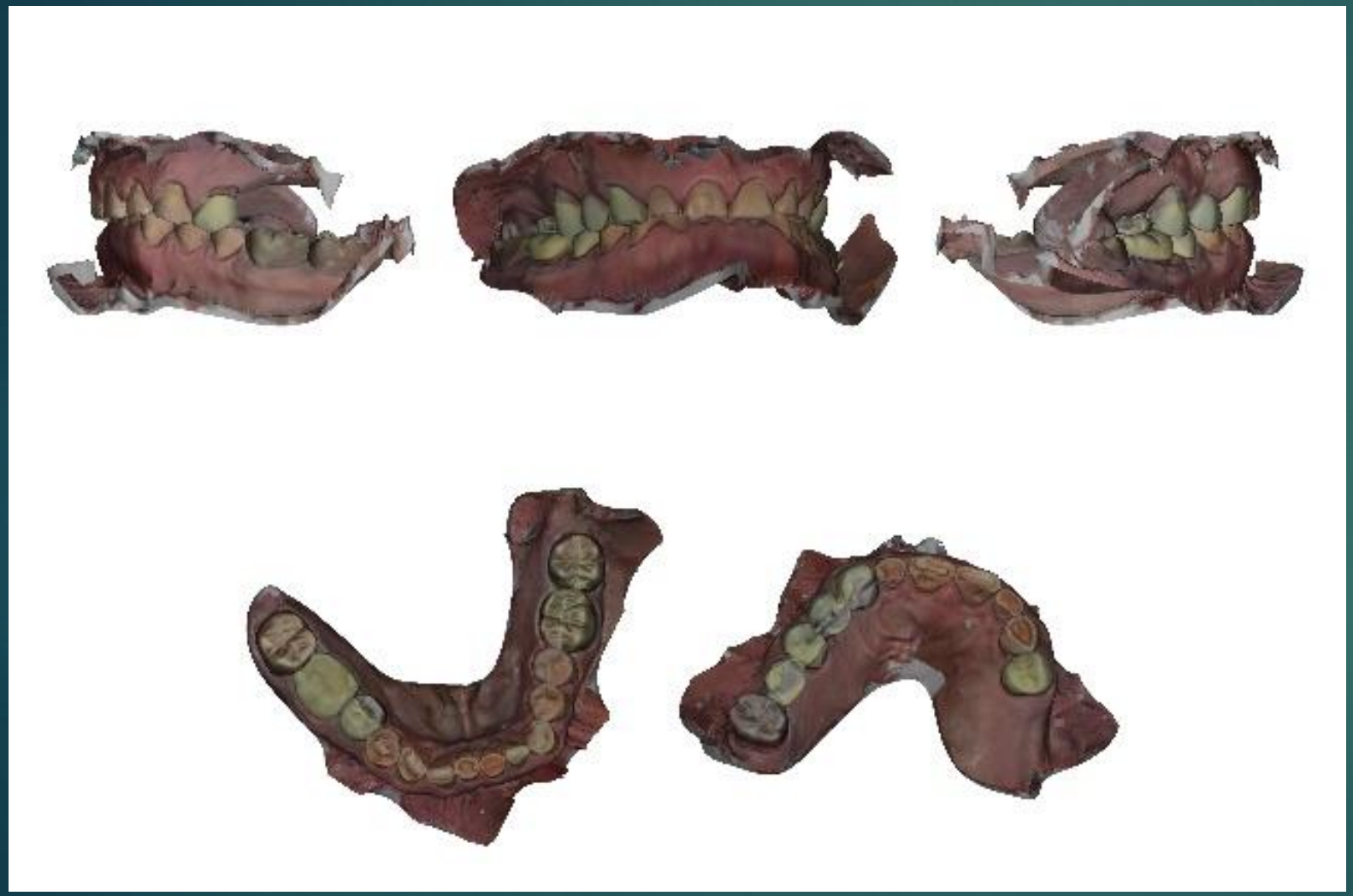
- No tooth mobility
- Gingival pocketing is on lingual of lower posteriors 5 mm mild bleeding
- Gingival hyperplasia and mild 2 mm bone loss around lower molars
- Abundant attached mucosa



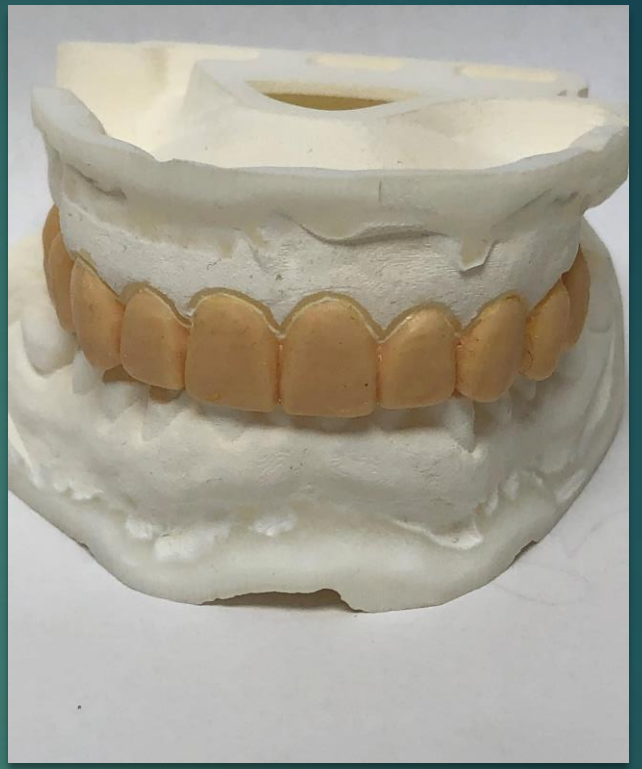
Dental Diagnosis:

- Missing Teeth: #1, 3, 5, 13-16, 17, 32
- #30-M caries
- Cervical erosion #12 distal, not decay
- Advanced generalized tooth wear
- Loss of lower face length (collapsed bite)
- Fractured teeth
- Failing crown and bridge work
- Inadequate bone support for implants upper left





Digital Scan Goal: prepare New View preview



New View Preview modelling By Jason Kim Aesthetics

How we use the New View Preview

JK lab prepares a wax mockup and a putty template for $99

New View Preview- Selling the Vision

Initial Records Visit

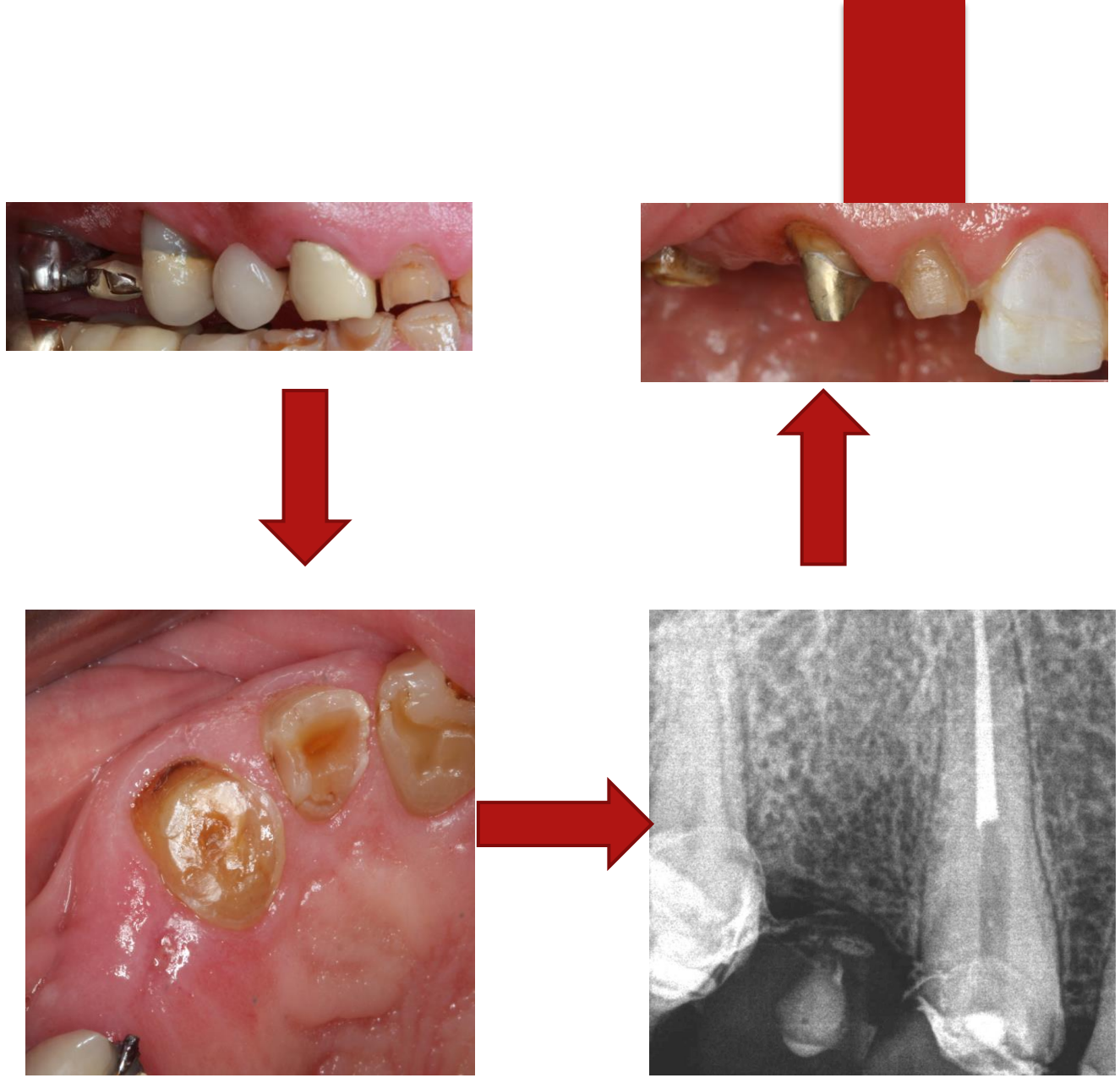
Intra Oral Exam	Arch Measurements	Lab Reference Points
Intraoral Photos	TMJ Range of Movement	Vertical Occlusal Dimension-Reference Teeth CEJ Measurements
Gingival Heights of Contour 6-11 & Premolars	Digital and Analog Models	Blue Mousse Bite Relation in Habitual Bite and in Proposed Bite
Tooth Mobility / Prognosis	Curve of Spee	Wax Bite in Centric Relation Position
Diagnosis	Curve of Wilson	Central Incisor Length- Upper/Lower Actual/Proposed
Referral to specialists	Lip Movement / Smile Line	Tooth Shade Initial/Proposed

Gingival Heights of Contour:

Ideal Teeth Shapes

Upper right Bridge fracture

- Collapsed Vertical concentrated masseter muscle forces resulted in fractured cast metal bridgework, fractured 4,6,7
- Canine #6, root canal treated and cast post and core fabricated.
- Canine #6 restored as a bridge abutment in preparation for increased VDO.

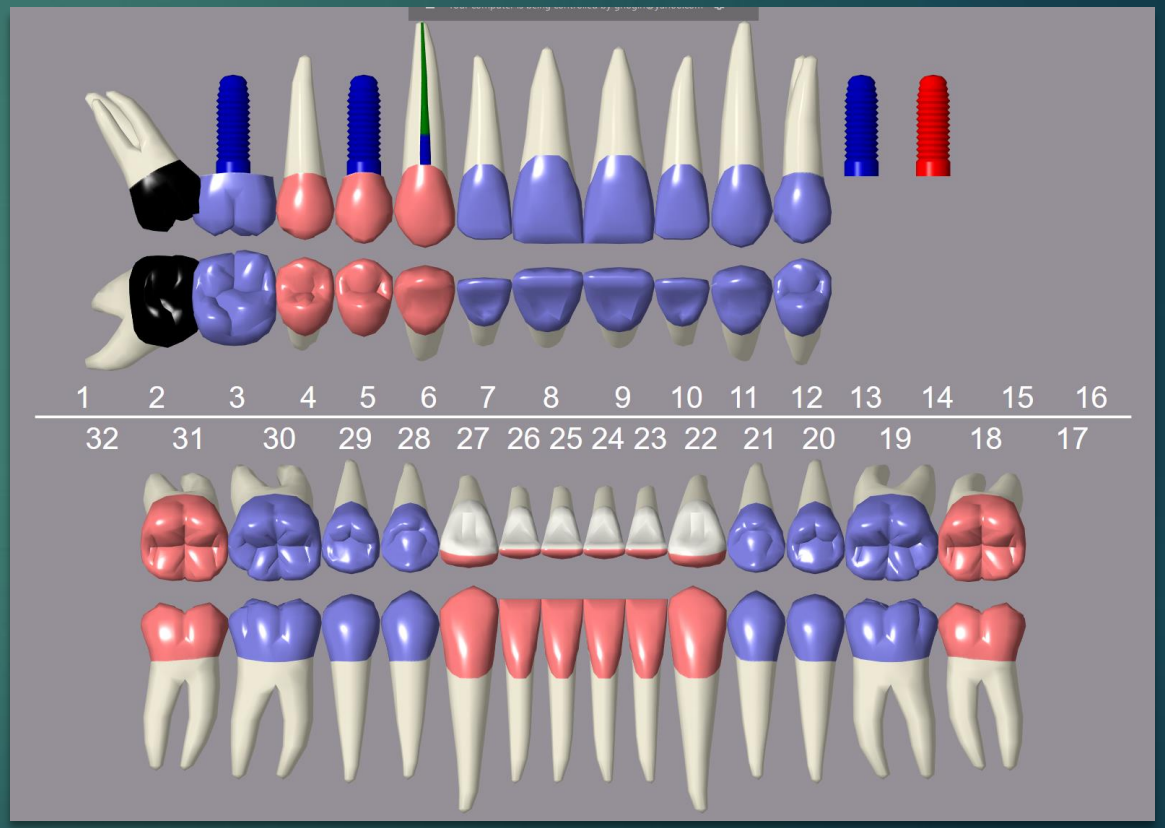


Laboratory Script: Over view

- Case Goal:
- Goals for this phase of case:
- Case Design:
- Measurements:
- Clinical Notes:
- Case Enclosures:

Laboratory Script: Case Goal

- Full Mouth rehabilitation with implant and natural tooth supported crown and bridge work



Laboratory Script: Goals for this phase of the case

1. Duplicate the study models. One model will be returned unaltered. One model to be used for diagnostic wax up. Third model will be used for prep design on #7-11 and #22-27.

2. Please prepare a putty matrix kit with reduction guides.

3. Putty matrix of the diagnostic wax up

4. Maxillary putty guide, please include the palate for stability. Also please prepare V-shape cutouts to show the gingival papilla

Diagnostic

Wax UP

Laboratory Script: Case Design:

- Porcelain fused to Nobel metal crowns on natural teeth
- Zirconia crowns on implants in upper right and left posterior.
- Lower anterior (#22-27) Feldspathic.
- Implants placed in #3 and #4 locations and #19, 20.
- PFM crowns on mandibular molars and premolars.

Lab Script: Measurements:

- Tooth #9 initial 6mm advise increase to 10.5mm
- Tooth #24 initial 2.77, increase to 7 mm
- VDO initial CEJ 6-27 is 10.1mm and #11-22 is 10.67 increase to ~15mm
- Digital scan for printing casts in occlusal relationship

Visualing the occlusal vertical dimension

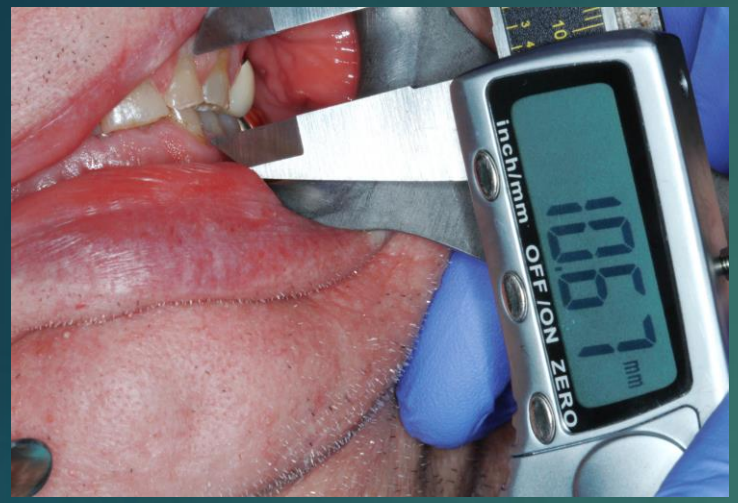
Central Incisor Length:

Actual Upper Incisor Length: 6.05 mm

Actual Lower Incisor Length: 2.76 mm
Proposed Lower Incisor Length: 7 mm

Proposed Upper Incisor Length: 10.5 mm

VDO:



Actual CEJ measurements:

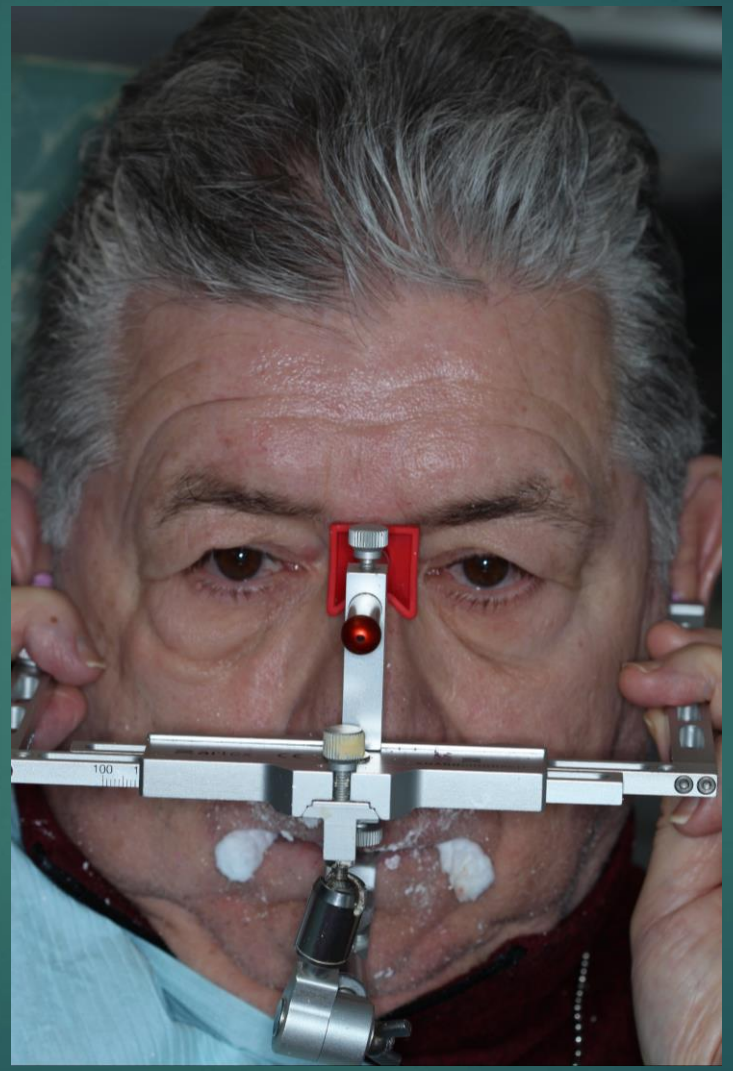
#11-22 is 10.67 mm

Actual CEJ measurements:
#6-27 is 10.1 mm

Proposed CEJ: 15 mm

Lab Script: Case Enclosures

1. Upper and lower printed casts
2. Blue mousse habitual bite relation
3. Artex facebow



Face Bow

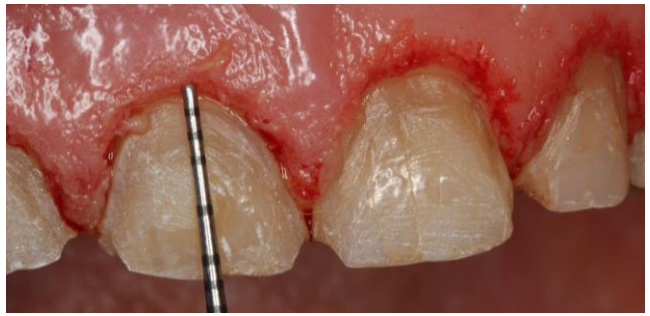
Blue Mousse Bite Relation in Habitual Bite at new VDO

Treatment Strategy and Staging

- Initial maxillary provisional on residual maxillary teeth to open VDO
- Crown lengthening lower anterior teeth to establish restorative length
- Add occlusal resins posterior teeth to provisionalize a flatter curve of Spee
- Implants posterior upper right, upper left
- Definitive crown and bridge maxilla
- posterior crowns lower
- anterior mandibular veneers

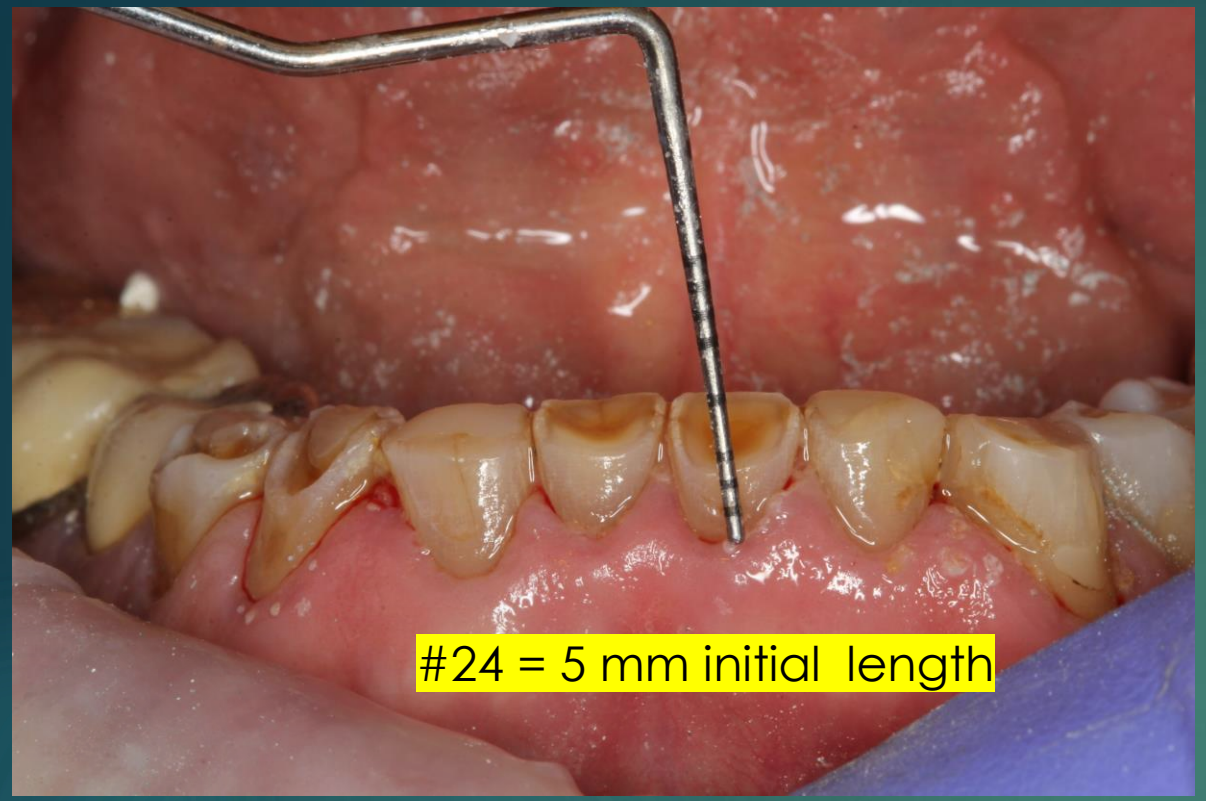
Gingival Recontouring maxilla and Provisional

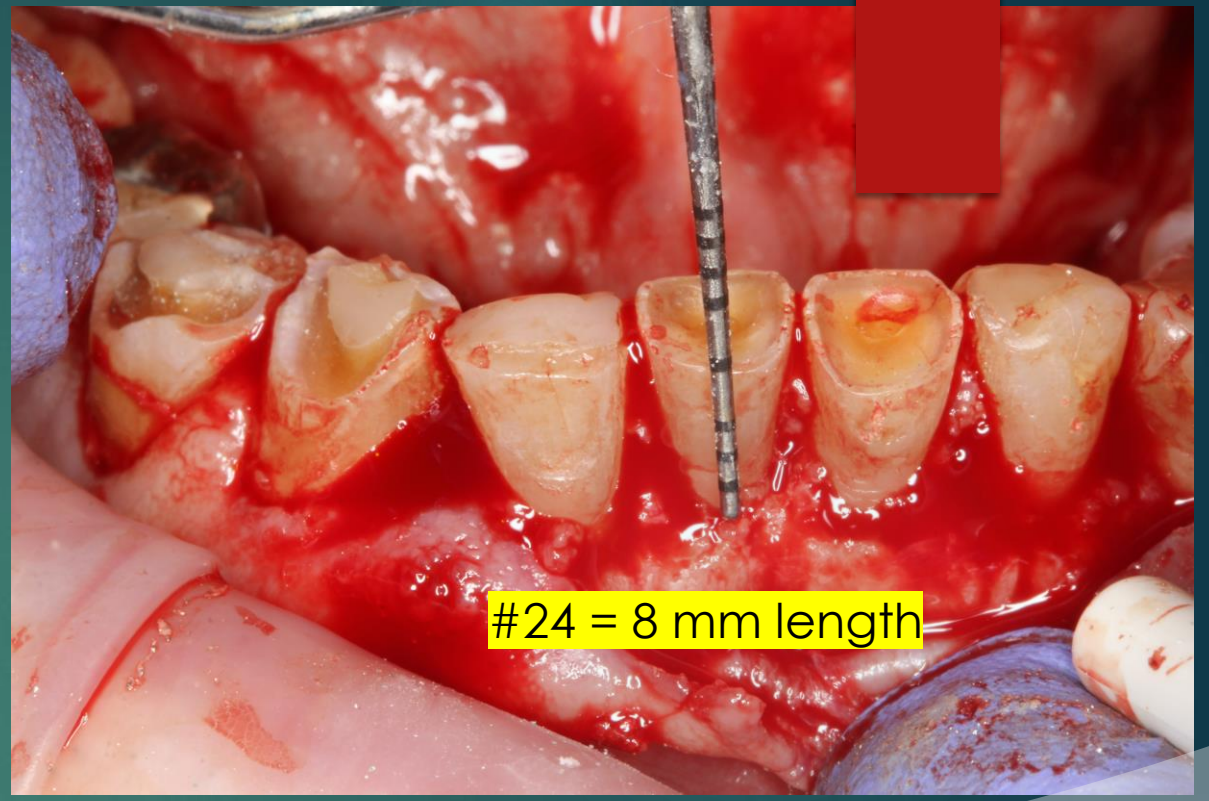
#8 is 7 mm length



#8 has 1.5 mm gingivectomy

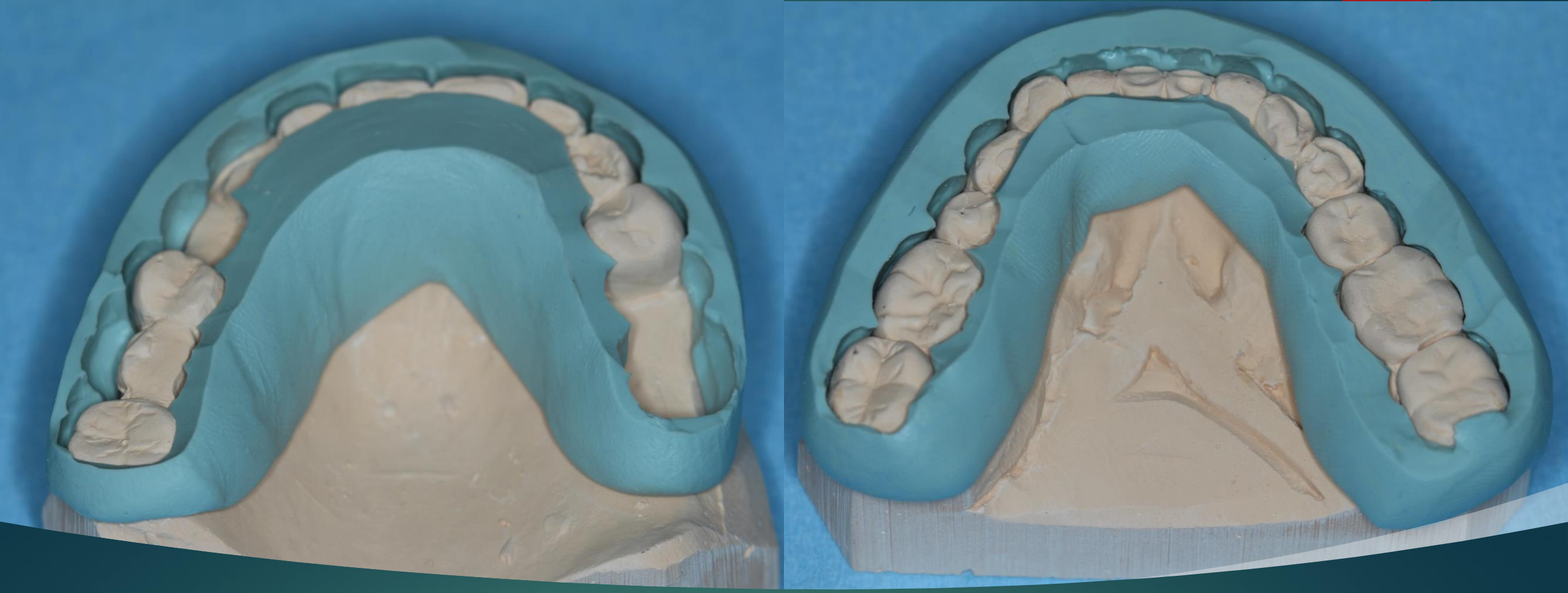
#8 new restored length 10 mm





Crown Lengthening lower anteriors

Implant Placement Plan



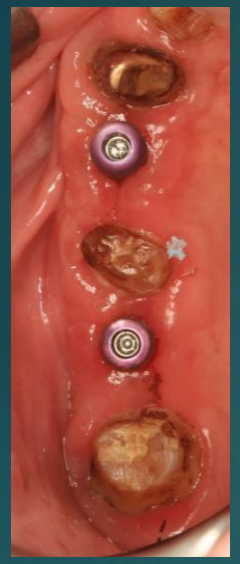
Tooth Preparation Guides

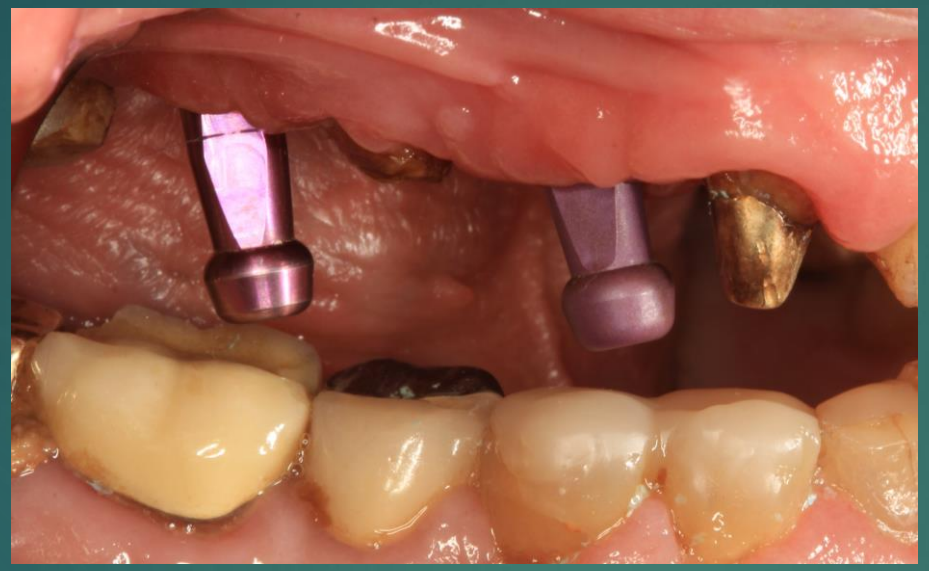
Tooth Prep

Class II severe anterior wear case Initial mandibular provisional to test occlusion

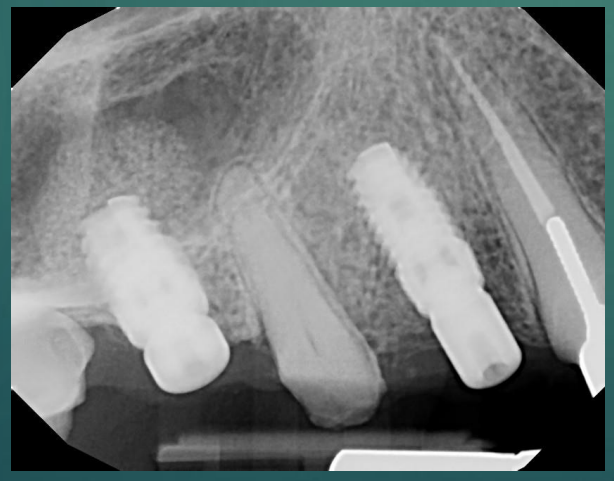
Comparing Edge to Edge Positions

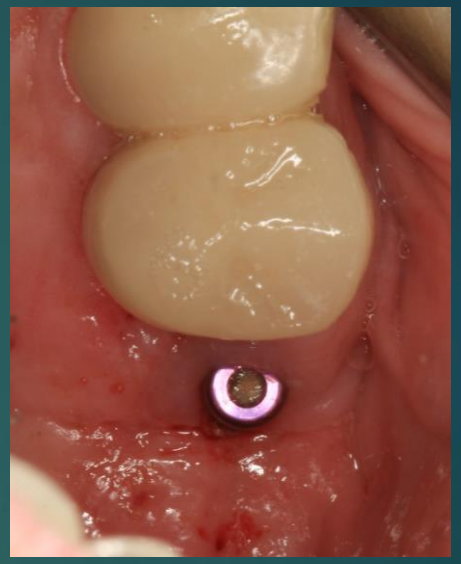
Implants – 9/3/2019, 12/30/2019





#3 and #5





#13

Provisionals

Chair Time by Treatment Category

Treatment Category	Chair Time (Hours)
Consultation	0.5
Records Visit	2.33
Crown and Bridge Work	16.16
OVNC/CCA	Provisional Work: 20.48
	Recementation: 3
Implant Surgery	6.5
Gingival Contouring	1

Lab Costs for records visit and provisionals

Date	Procedure	Cost
2/2019	New View Preview	$99.00
3/2019	Diagnostic Study Model	$1,662.00
6/2019	Post & Core #6	$97.05
7/2019	Abutments and Pontics	$353.00
10/2019	Transition Provisional #2-12	$343.00
12/2019	Remake Transition	$350.00
12/2019	Screw-Retained Provisional Bridge with Pontics	$301.00
6/2020	Provisional Implant Crown#13	$133.00

Discussion of Treatment Time

23 HOURS CONTINUING CARE VISITS- REPAIRS TO PROVISIONALS

UNDERSTANDING THE OCCLUSION

Records to Functional Provisionals