

FAILED BRIDGEWORK, MISSING TEETH ,COLLAPSED BITE

PT: LARRY

DR. GARY LOGIN



LEARNING POINTS IN THIS CASE

- Diagnosing why prior crown and bridge failed
- Missing teeth and collapsed bite relationship
- Restoring functional planes of occlusion
- Increase in VDO

- Documentation: Records visit, Prep Design, Provisionals, implant surgery, definitive crowns

- FMR complexity Level 4

TREATMENT STRATEGY

- Records visit-
- Remove existing crowns and tooth preparation (unanticipated time)
- Fabricate maxillary Protemp provisional from waxup
- Implant placement
- Restore implants and teeth to establish level curves of Wilson and Spee

- Rationale: increased VDO reduced horizontal force on anterior teeth during excursions

- In progress: posterior edentulous ridge augmentation and implants and crowns

PATIENT INFORMATION

- 69 years old.
- Military veteran. Currently Self employed.
- Initial Visit: 1/7/2019

DENTAL HISTORY

- “I was in the service, and had some issues with my teeth.”
- “I’ve had a lot of work done.”
 - 14 crowns.
- “Two years ago, 1 crown fell off. I took crown from a back tooth and glued it onto the front.”
- “I went to an office that told me they could not recement the old crown, because it had issues and they only wanted to place implants.”
- “I had a LL-bone graft done 5-6 years ago, but I did not have the finances to place implants then.
- “I would like to get implants where applicable.”
- “I have been using polygrip to keep the crowns in.”

CONDITIONS PRE-TREATMENT

- #27 distal possible root resorption or caries. No explorer stick. Feels cavernous. Pt not in any pain.
- No mobility.
- #7 fractured to the gum line. #9 is missing a crown. #10 is missing a crown. No explorer sticks
- #30 is missing a crown
- #22-27 erosion. Pt reports that his teeth were ground down by army dentists.
- Collapsed bite and relationship to crown failure
- Advanced wear.

Patient prefers to have a comprehensive analysis of aesthetics including best shade and shape of all teeth.

TMJ RANGE OF MOVEMENT AND COMFORT

Class 2 anterior, posterior indeterminate. 100%
overbite and 6mm overjet.

INITIAL VISIT

PROCEDURES

- CONSULTATION
- FULL SET OF PHOTOS
- FMX
- 3D SCAN
- PERIOCHARTING

TIME

- 50 MINUTES

Conditions Pre-Treatment



"My main concern is aesthetics."

Conditions Pre-Treatment



“The appearance of my lower teeth does not bother me.”

Conditions Pre-Treatment



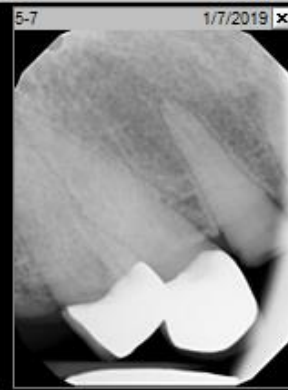
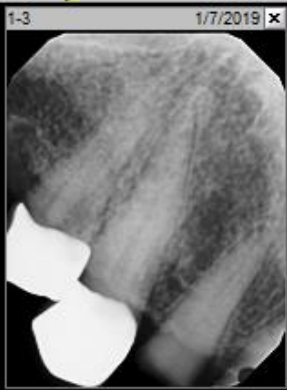
“When I was in the service, I ground my lower teeth down.”

SMILE LINES

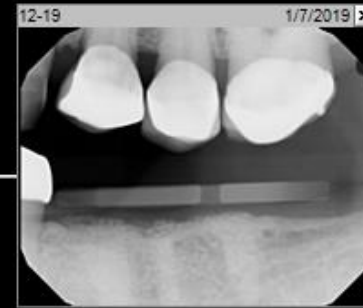


IMAGINING IDEAL TOOTH SHAPES USING DIGITAL TEMPLATES



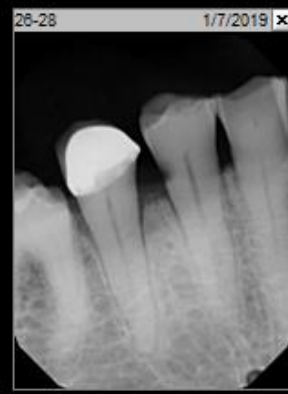
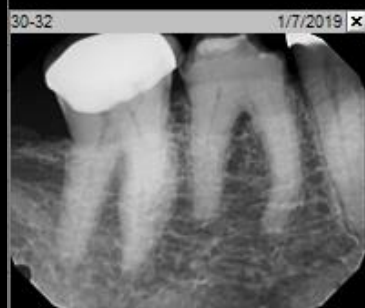


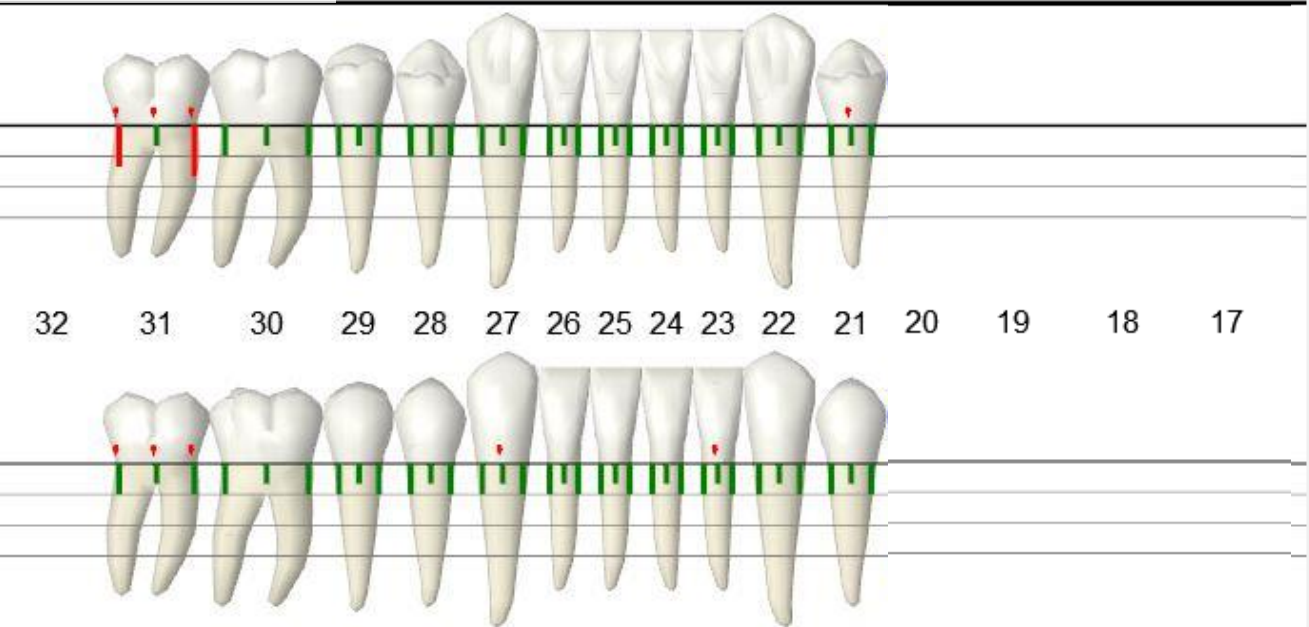
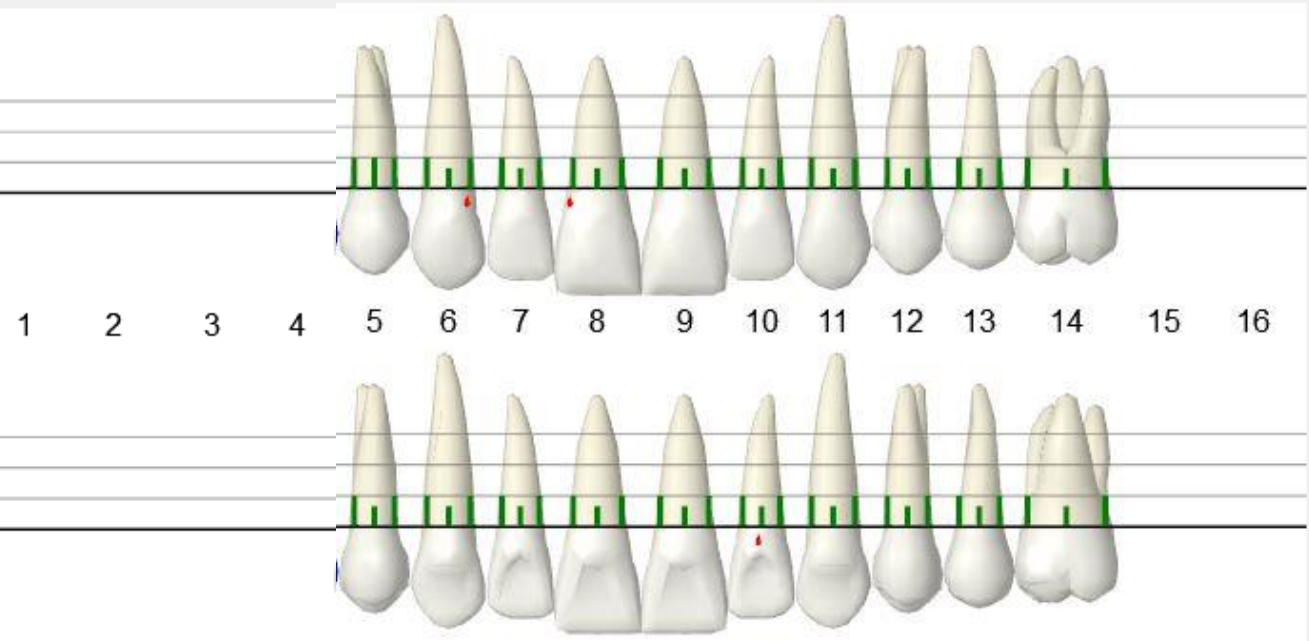
Hyper erupted teeth



...8 9...
..25 24..

CARRIES





- | | | | | | |
|-------------|---|---------------------------|---|-------------|---|
| Bleeding | • | Gingival Margin | — | Furcation 1 | △ |
| Suppuration | ▲ | Clinical Attachment Level | — | Furcation 2 | △ |
| Probing | | Mucogingival Junction | — | Furcation 3 | ▲ |

GUM HEALTH

SUMMARY GOALS FROM INITIAL VISIT

- Increasing height of mandibular teeth to 8mm.
- Reduce Over Jet.
- Increase cingulum rests from #6-11.
- UR implants #3 and 4 and LL implants #19 and 20,
- Crown Lengthening on #6-11 of 2mm (thick gingival biotype).
- Referral to endo for all teeth in preparation for FMR

RECORDS VISIT

PROCEDURES

- NEW VIEW PREVIEW
- TEETH MEASUREMENTS
- INITIAL AND PROPOSED VDO
- SHADE PHOTOS

TIME

- 90 MINUTES

RECORDS VISIT

Initial Lengths of Maxillary Incisor and Canine



RECORDS VISIT

Initial VDO



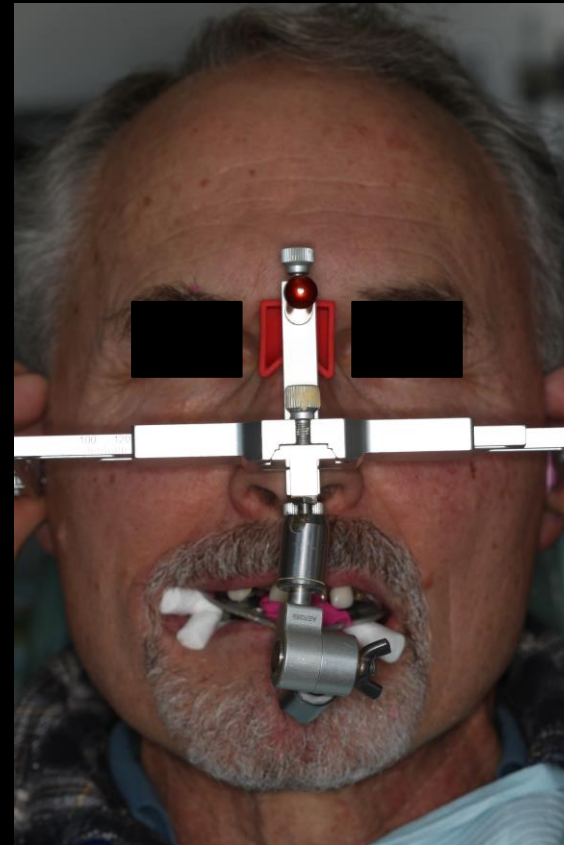
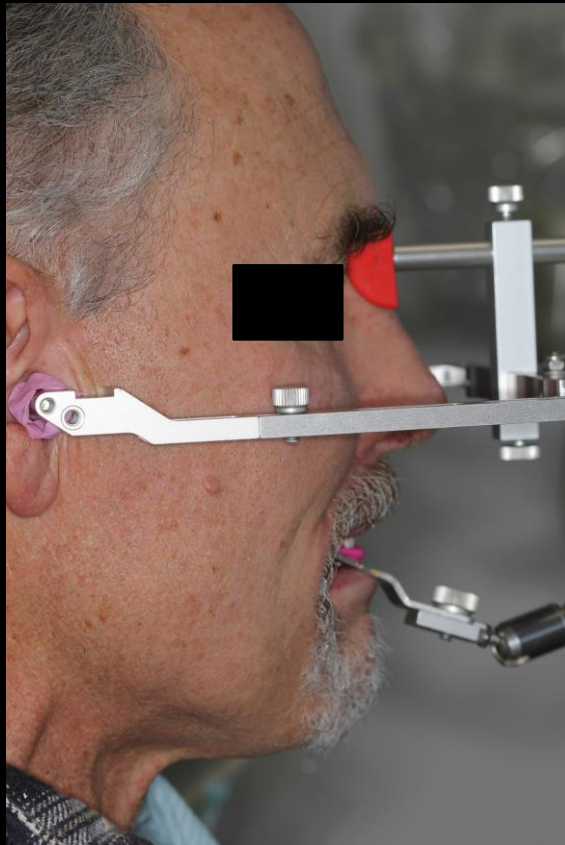
#6 - #27



#11 - #22

RECORDS VISIT

Facebow



RECORDS VISIT

Opening the vertical stops

Added composite on lingual of #6



Added composite on the buccal incisal of #21 and #27



RECORDS VISIT

Proposed VDO



Initial



Proposed

RECORDS VISIT

Evaluation of Gum Line

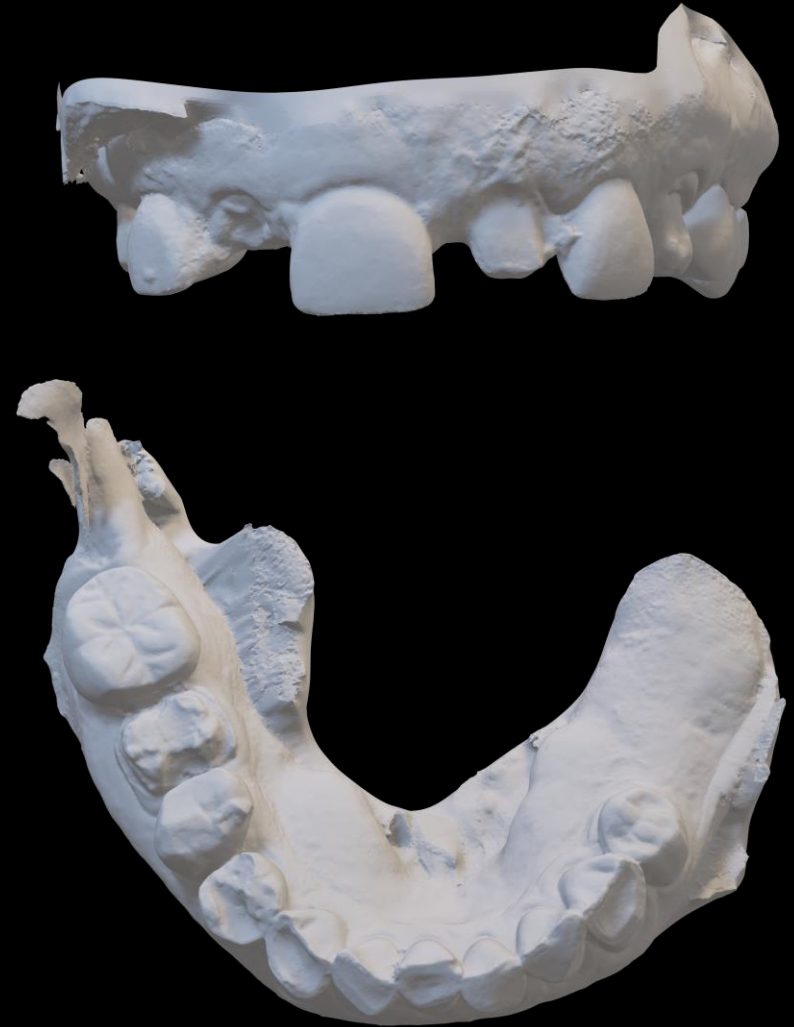
Increasing the gingival height of contour of #8 and #9 3mm.



Increasing the gingival height of contour of #6 and #11 1mm.



DIGITAL SCAN AND MODEL PREPARATION



To create putty template to capture arch for support

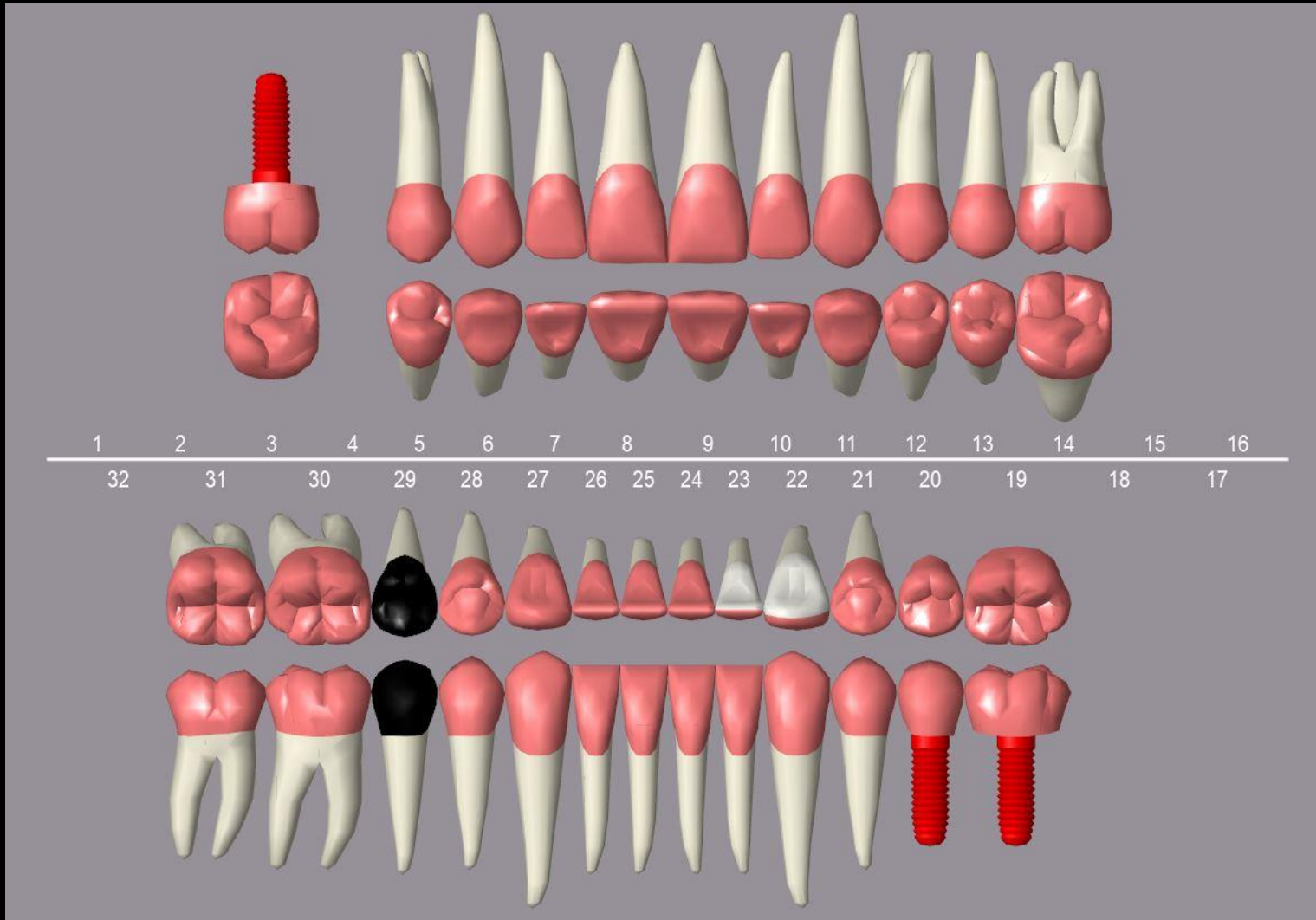
Old restoration and stump shades



RECORDS VISIT

- 1. VDO CEJ #6-27: 13.37mm #11-22: 11.38mm
- 2. tooth lengths #8: 9.5mm #24: 5.45 mm; #31 7.2 mm; #14 6.8mm
- 12. Class 2 anterior, posterior indeterminant. 100% OB and 6mm OJ
- 13. high smile line
- 14. New VDO: 18mm
- 15. New #17: 10.2mm
- 16. habitual pre-tx wax bite with blue mousse taken
- 17. blue mousse bite taken

TREATMENT PLAN



REFERRAL TO SPECIALISTS:

- Dr Peterson – Evaluation of the endodontic health of all teeth and advise on treatment recommendations prior to full mouth rehabilitation treatment.
- Dr Fried – Evaluation of teeth #7-10 and advise on the pros and cons of cosmetic crown lengthening treatment to increase the gingival heights of contour ~ 3 mm for the centrals and 2 mm for the laterals.

LAB RX TEMPLATE

- Case goal: Full Mouth Rehabilitation

Goals for this phase:

- 1. Diagnostic wax up of #3-14 and #19 to 31
- 2. Please triplicate these study models
- 3. Please use one model for diagnostic wax up, second model for ideal preparation design on each tooth in the treatment plan, and third model leave untouched
- 4. Putty template of wax-up

LAB RX TEMPLATE

- Case Design:
- 1. Current VDO CEJ #6- 27: 13.37mm #11-22: 11.38mm
- 2. tooth lengths #8: 9.5mm #24: 5.45 mm; #31 7.2 mm; #14 6.8mm
- 3. Please increase VDO to 18mm
- 4. Please increase #24 to 8mm
- 5. Please prepare a crown lengthening template- increase gingival height of contour #6 and 11 1-mm; #8 and 9 3-mm
- 6. Please add to the lingual contours of 6-11 to establish singulum rests for the mandibular incisors.
- 7. maintain existing incisal edge position

INITIAL CHAIRSIDE MOCKUP



Lengthening on #6-11 of 2mm, thick gingival biotype



Increasing height of mandibular teeth to 8mm,
reduce Over Jet

PREPS + PROVISIONALS

PROCEDURES

- DIAGNOSTIC WAX UP
- PREP OF MAXILLARY TEETH
- CROWN LENGTHENING
- GINGIVAL LASER REDUCTION

TIME

- 6 HOURS AND 30 MINUTES

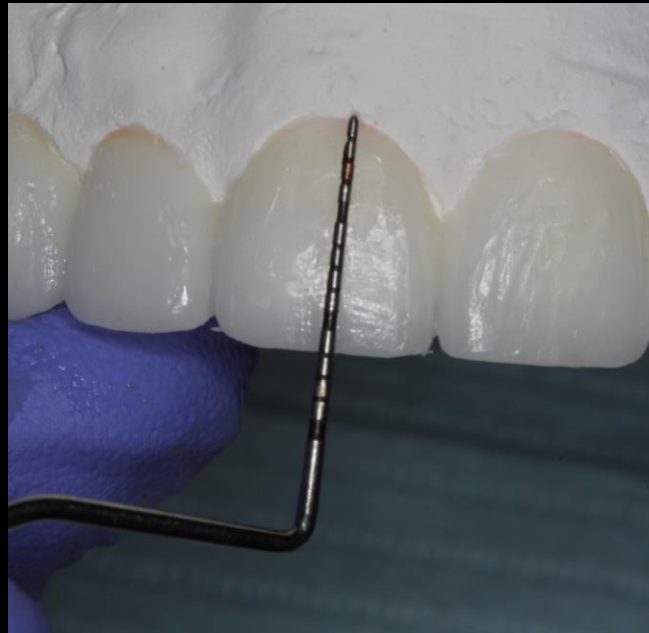
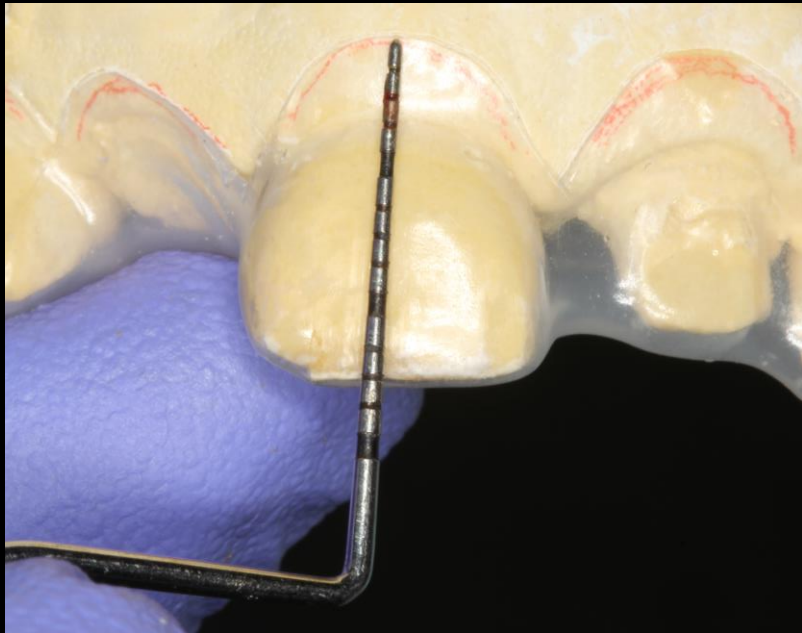
DIAGNOSTIC WAX UP



SULCUS DEPTH AND GINGIVAL HEIGHTS OF CONTOUR



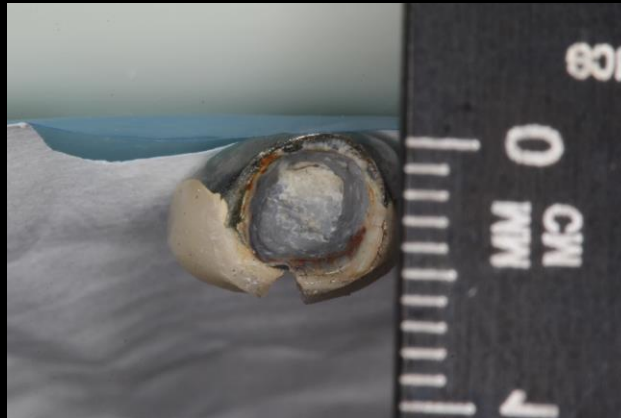
GINGIVAL CONTOURING AND VERIFICATION



PERIODONTAL SURGICAL STENT



CROWN REMOVAL

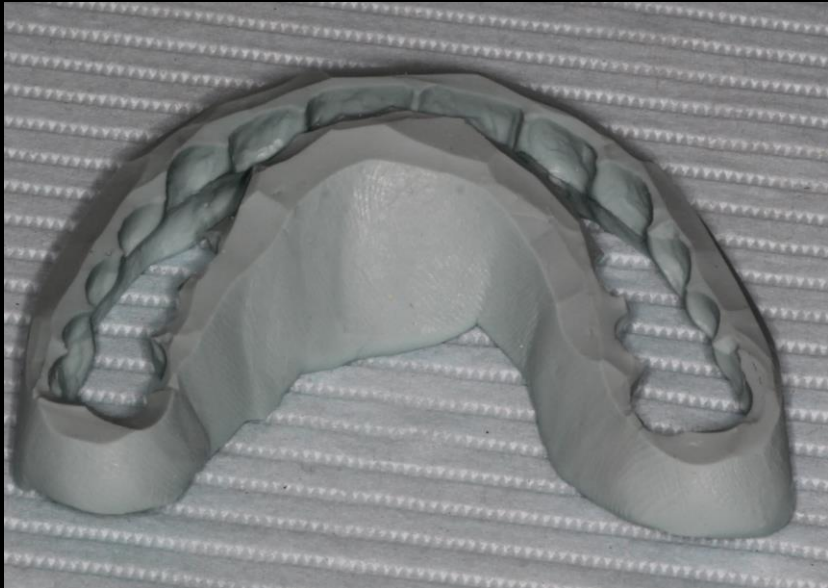


Crowns very dense and time consuming to remove

PREP OF MAXILLARY TEETH



PREP GUIDE EVALUATION

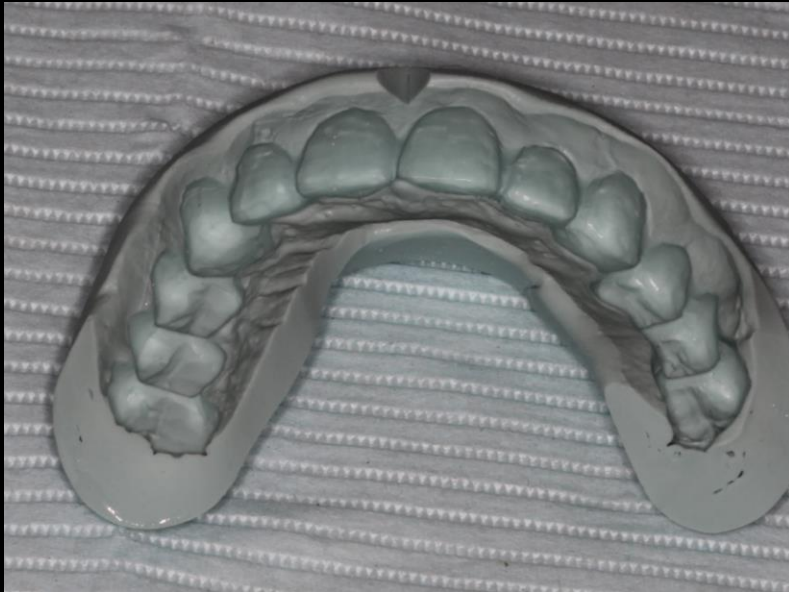


LEVELLING CURVE OF SPEE



LEVELLING THE CURVE OF SPEE WITH LUXAFLOW

PROVISIONAL LENGTH OF LOWER TEETH WITH LUXAFLOW



TRYING PUTTY TEMPLATE OF WAX UP AFTER GINGIVAL LASER REDUCTION OF GUM (GUM LIFT) AND CROWN PREPS

MANDIBULAR CROWNS REMOVED, CORE BUILDUPS LOWER RIGHT



OCCLUSAL TEST OF PROVISIONALS



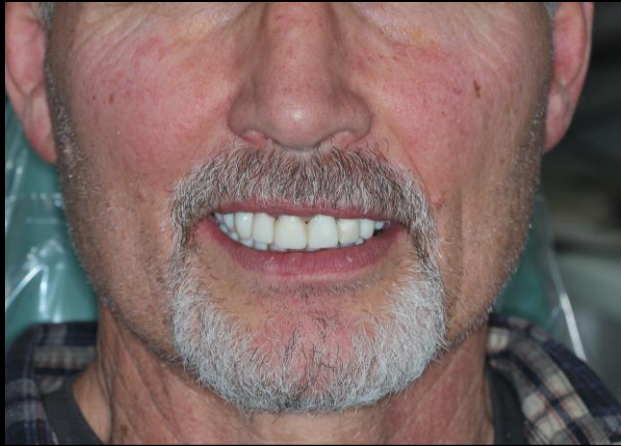
PREPS OF MANDIBLE AND IDEAL VDO MOUNTING



SECTIONAL BITE RELATION



8 WEEKS AFTER GINGIVAL CONTOUR



SURGICAL PHASE

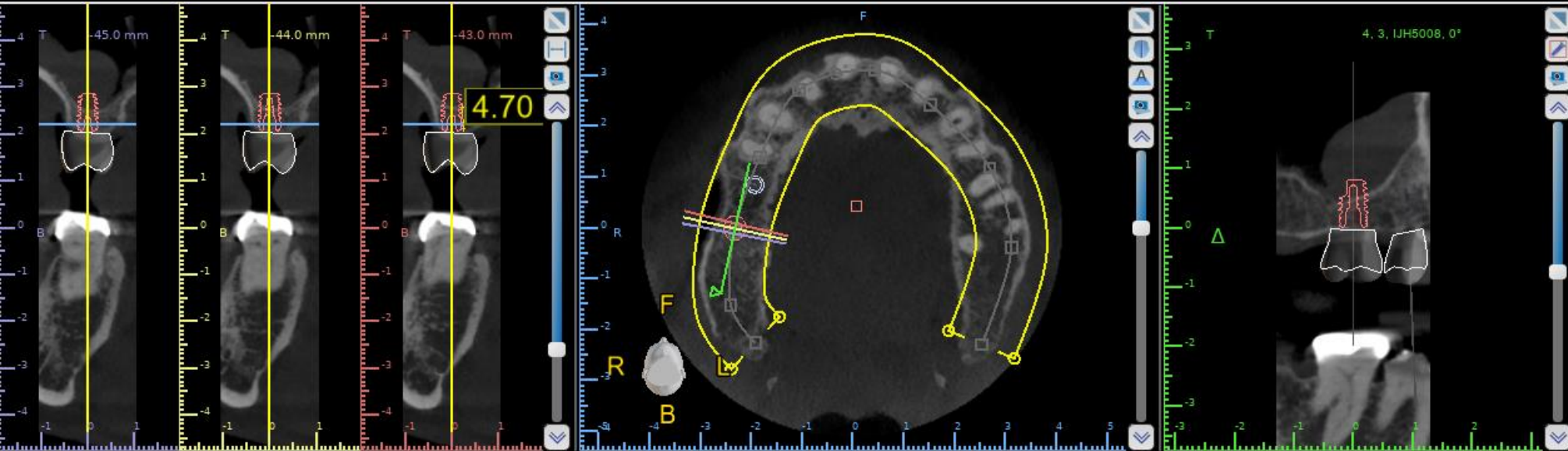
PROCEDURES

- IMPLANTS #19 AND #20

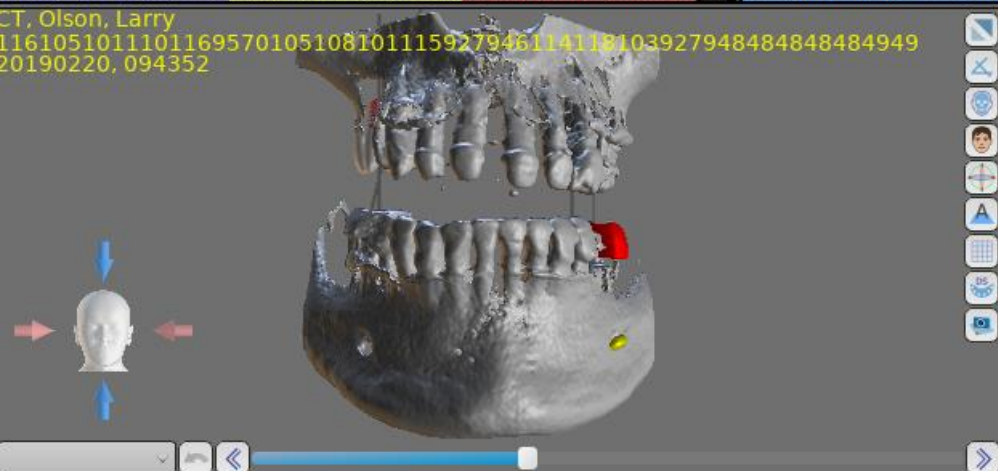
TIME

- 3 HOURS AND 30 MINUTES

IMPLANTS PLANNING #3, 4, 19, 20



CT, Olson, Larry
1161051011101169570105108101115927946114118103927948484848484949
20190220, 094352



Implant List

Drill Kit: Blue Sky Bio Direct Cut Drills

Implants

Label	ID					
IJH5008	19	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
IJH4310	20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
IJH3510	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
IJH5008	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Visibility Settings

Transparency: 0.90

Implant outline:

Implant: IJH5008

Length: 8.00 mm

Apical Diameter: 3.86 mm

Occlusal Diameter: 5.00 mm

Buttons: Customize, Replace

Abutment: - no abutment -

Length: 7.94 mm

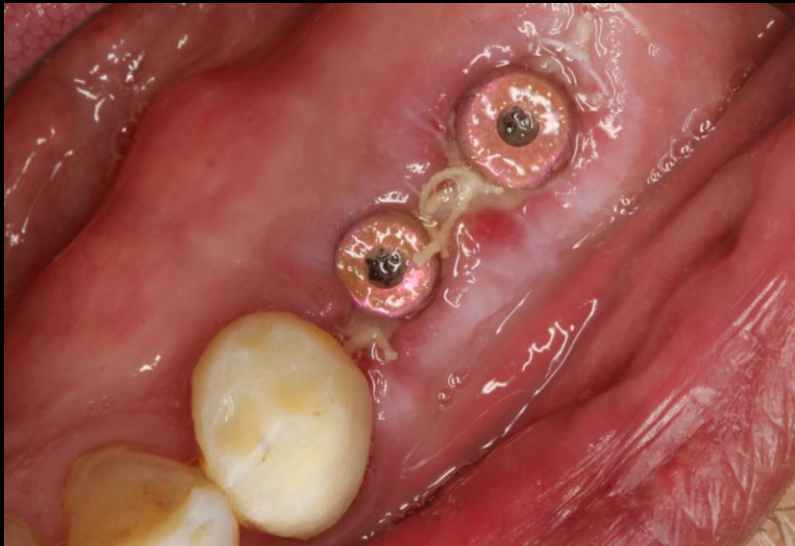
Diameter: 4.67 mm

Angle: 0.00°

Buttons: Customize, Replace

48

IMPLANTS #19 AND #20



IMPLANTS #3 AND #4



INSERTION VISIT

PROCEDURES

- INSERTING FINAL RESTORATIONS
- VDO CONFIRMATION

LAB VENEERS AND CROWNS ASSESSED ON MODELS



FINAL VENEERS AND CROWNS



LAB VERIFICATION



FINAL INSERT #11 NO T INSERTED BECAUSE OF OPEN MARGIN
PROVISIONAL REPLACED



PARTIAL DENTURES UR/LL FOR BITE STABILITY DURING IMPLANTS HEALING PERIOD



IMPLANT CROWN PLACEMENT

#3, 4, 19, 20



PROSTHODONTIC REHABILITATION

BEFORE

AFTER



PROSTHODONTIC REHABILITATION

BEFORE



AFTER



PROSTHODONTIC REHABILITATION

BEFORE

AFTER



PROSTHODONTIC REHABILITATION

BEFORE

AFTER



VERIFICATION OF OCCLUSAL CONTACT



Initial

&

Final



INITIAL DATE:	1/7/2019	TOTAL ESTIMATED WORK HOURS:	49
FINAL DATE:	11/5/2019	TOTAL LAB FEES:	\$11,500.00

Date	Visit	LAB COSTS	Description	Amount of time
7-Jan	Consultation,	99	Scan, NVP, FMX	0.833
28-Jan	Records Visit	1533	Study Models, Facebow, Waxup	1.66
30-Jan	TxDisc	-	Treatment planning	1
10-Feb	Crowns:5-14; Crown Lengthen #8	6254	Preps + Provisionals	6.5
12-Feb	CCA	-	Bite Adjustments	0.75
20-Feb	CBCT, CCA	-	Surgical planning	0.5
21-Feb	#21, 29-31 CoreBuildUp	-		1.66
3-Apr	Veneer: #22, 23 crown: 21, 24-28, 30, 31	463	Upper and lower valplast dentures	6.5
9-Apr	CCA	-	fractured provisional UR pre-implant	2
11-Apr	Implant Surgery #19 & 20	-		1.5
22-Apr	Tissue Check implants	-		0.5
6-May	Tissue Check implants	-		0.5
6-Jun	Crown insert: #6-10, 12, 13	463		6.5
19-Jun	insert upper and lower partials	-		1
10-Jul	Implant Surgery #3 & 4; BwI	-		2
11-Jul	Implant crown impression 19, 20	1051		1.5
5-Aug	Implant Crown insert #19, 20; Gingival Access #3		Remake Crowns #11 and 14	2.5
3-Oct	Implant Crown impression #3, 4	1581.6	Screw retained zirconia crown w/ emax porcelain overlay	2
4-Nov	Implant Crown insert #3; CrownInsert: 11, 14	-		3.5
3-Dec	try-in 19, 20 crowns	-		1.5
24-Dec	New Impressions 3, 4, 12, 13, 19, 20, 21, 28, 29		Remake fractured Crowns	4
10-Feb	Insert crowns		Screw retained zirconia crown w/ emax porcelain overlay	3
TOTAL		11504.6		49.743

CASE EFFICIENCY

1. How many visits? 20
2. How many chair hours? 49
3. What were the total lab costs? \$11,500
4. What slowed the case?
 - Removal of the PFM crowns (dense, thick metal)
 - Proximal Fractures in posterior crowns (bite related)