

CASE REPORT

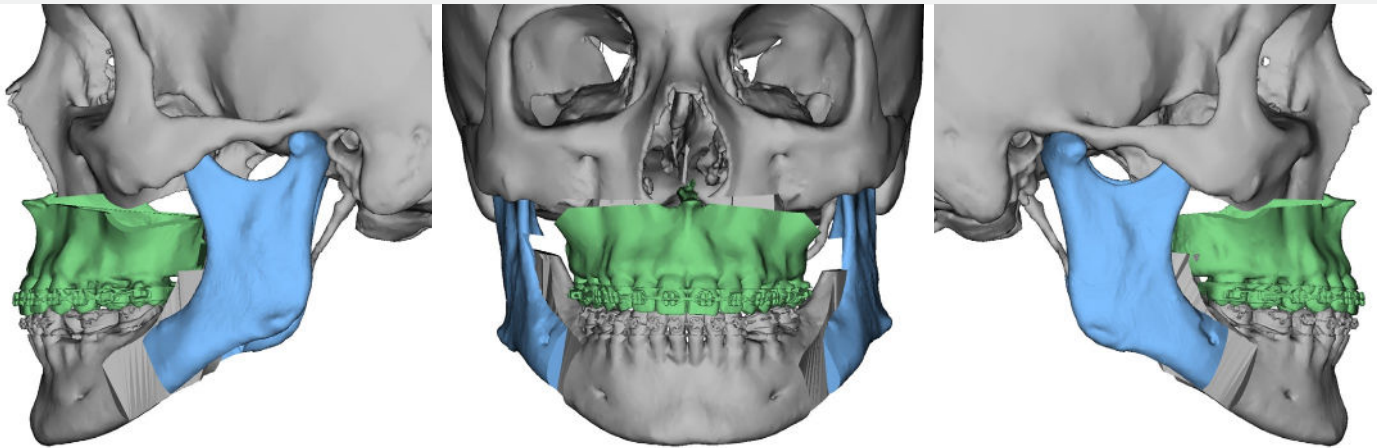
Surgeon and Patient Information

Surgeon Name: Dr. David Bell D.D.S., M.D.
 Email Address: david.l.bell@kp.org
 Phone Number: (559) 448-7605
 WO#: 136052

Patient Name: [REDACTED]
 Surgery Date: 7-23-2020
 Rep Name: [REDACTED]
 Rep Contact: [REDACTED]

Simulated Virtual Surgical Plan

LeFort I and BSSO



Surgeon Agreement

With respect to the patient case described above (the “Case”), I, the undersigned, request that 3D Systems, Inc., (“3DS”), provide certain products including, without limitation, templates, tools, surgical splints, guides and/or anatomical models (collectively, the “Products”) and certain virtual surgical planning services (the “Services”) for use in connection with the Products. I hereby acknowledge and agree as follows in connection with the Case:

- I have prepared the virtual surgical plan (the “Plan”) for the Case and am solely responsible for the decisions made in the Plan and the surgical planning process.
- I hereby approve and accept the Products and Services provided by 3DS in connection with the Case and certify no changes are required.
- I acknowledge that, unless otherwise agreed in writing between myself and 3DS, all Products will be delivered non-sterile and that I am solely responsible for cleaning and sterilizing such Products prior to use.
- I have reviewed the Terms and Conditions set forth on the last page of this Case Report which are incorporated herein and agree to be bound by such Terms and Conditions.

Surgeon Signature

Date

Please copy this page, sign and date, and email or fax it to 3D Systems, Inc. Please note that if this Surgeon Agreement is not formally accepted prior to the surgery for the Case but the Products and Services are accepted, you nevertheless agree to pay for the Products and Services and to be bound by the Terms and Conditions.

Rev	Rev Date	Reason for Revision
IR	07/20/2020	

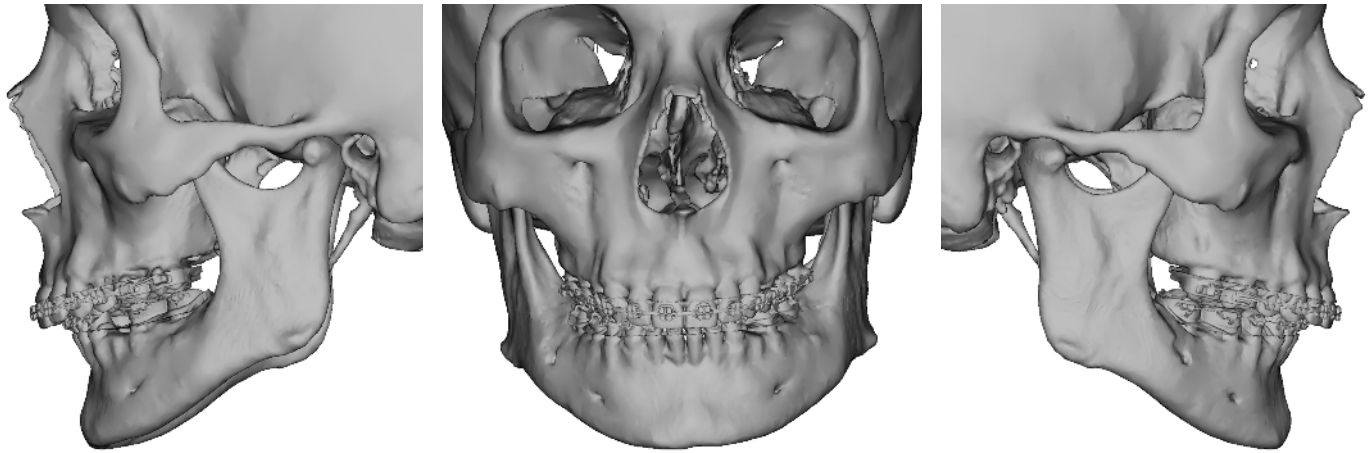
Movement Summary

Below is a list of bony and occlusal anatomical landmarks and their summarized movements from preoperative position (with mandible auto-rotated close) to simulated postoperative position.

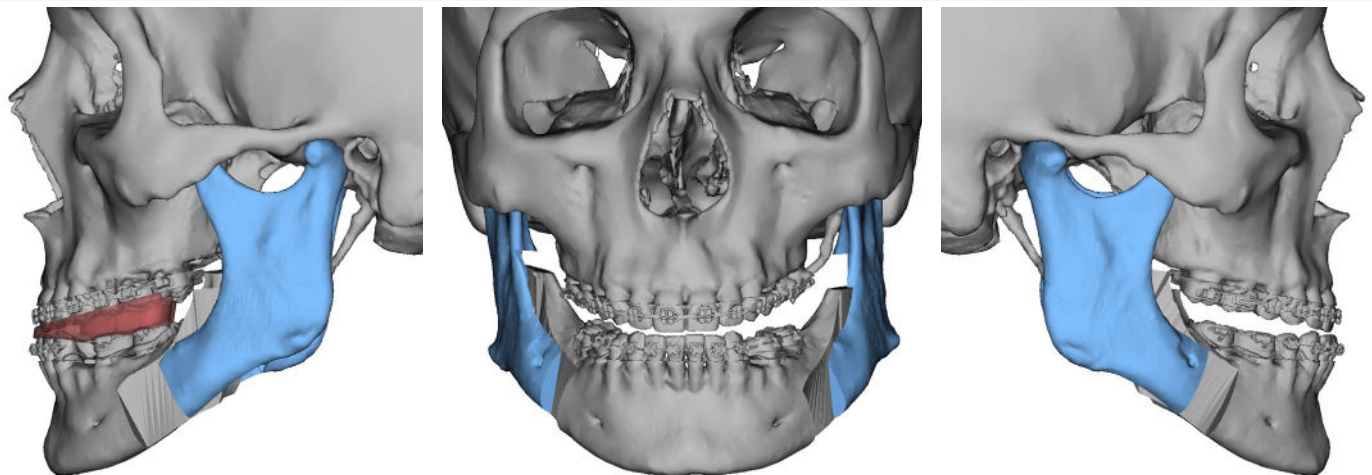
Point	Name	Anterior/Posterior	Left/Right	Up/Down
ANS	Anterior Nasal Spine	0.46mm Posterior	1.38mm Left	0.56mm Up
A	A Point	1.28mm Anterior	0.95mm Left	0.23mm Down
ISU1	Midline of Upper Incisor	5.00mm Anterior	0.00	0.00
U3L	Upper Left Canine	4.83mm Anterior	0.10mm Left	2.61mm Down
U6L	Upper Left Anterior Molar (mesiobuccal cusp)	4.22mm Anterior	0.31mm Left	4.95mm Down
U3R	Upper Right Canine	4.68mm Anterior	0.10mm Left	0.78mm Down
U6R	Upper Right Anterior Molar (mesiobuccal cusp)	4.25mm Anterior	0.25mm Left	2.67mm Down
ISL1	Midline of Lower Incisor	11.07mm Anterior	0.29mm Left	3.86mm Down
L6L	Lower Left Anterior Molar (mesiobuccal cusp)	11.48mm Anterior	0.66mm Left	5.97mm Down
L6R	Lower Right Anterior Molar (mesiobuccal cusp)	10.65mm Anterior	0.68mm Left	3.90mm Down
B	B Point	12.38mm Anterior	0.78mm Right	4.16mm Down
Pog.	Pogonion	12.94mm Anterior	1.33mm Right	4.03mm Down

Virtual Planning Work Flow

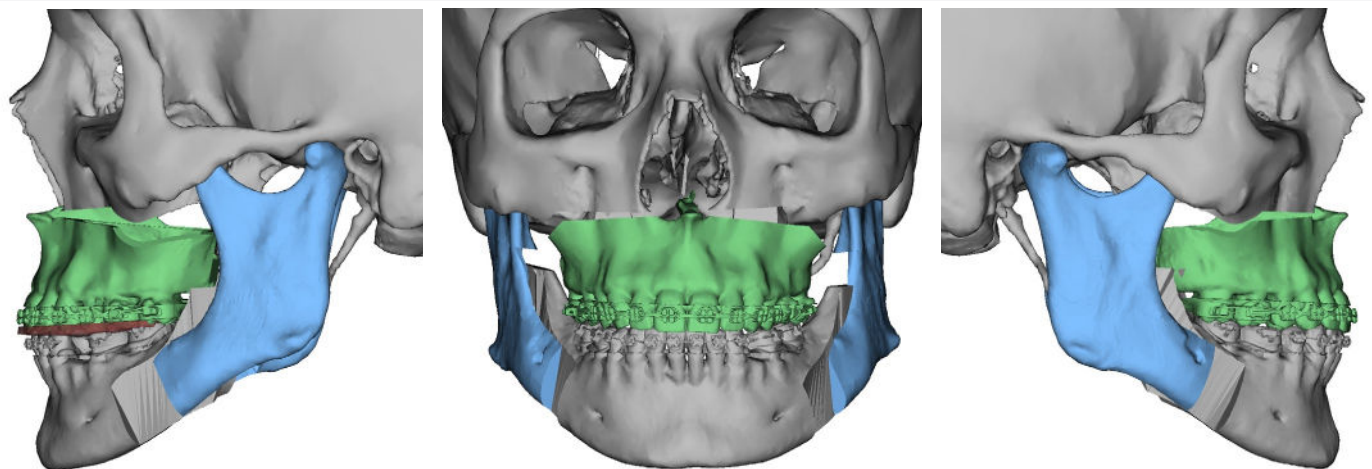
Preoperative Position



Intermediate Position



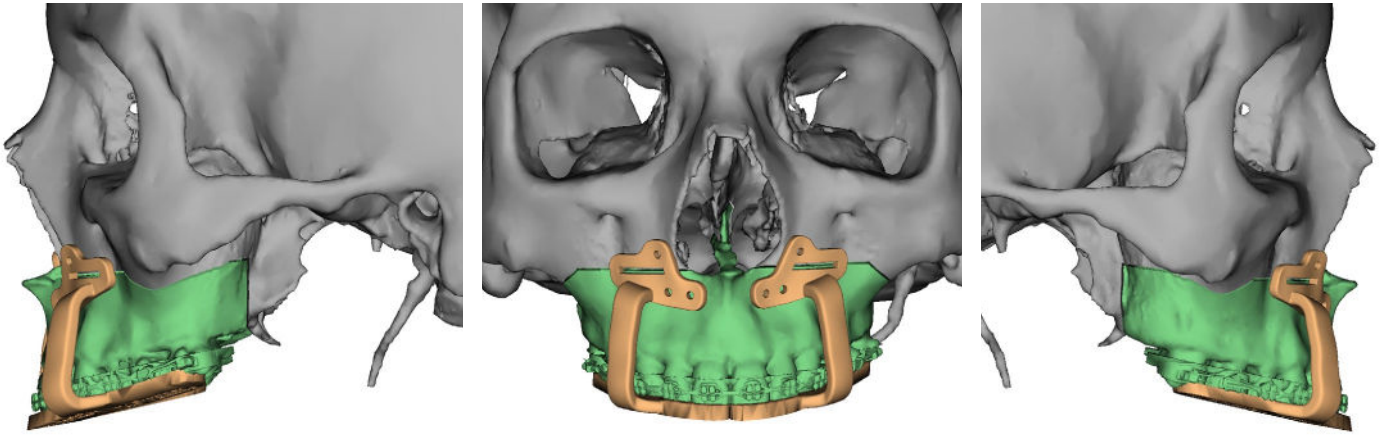
Postoperative Position



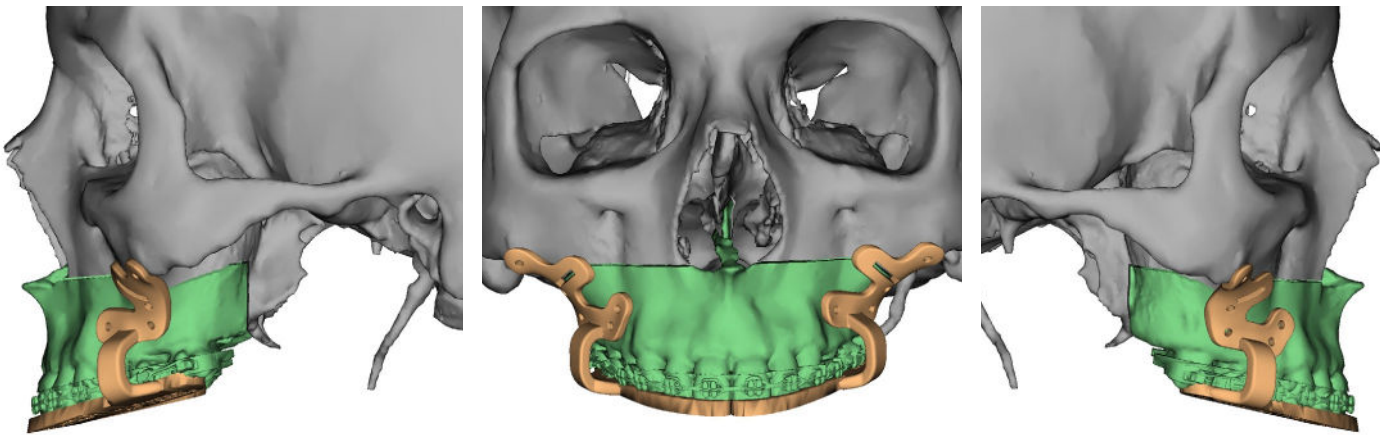
When using a protocol that does not include stone models physically present at 3D Systems, final fit verification of Orthognathic Splints is the responsibility of the surgeon prior to use.

LeFort Marking Guides and Stryker Customized Plates

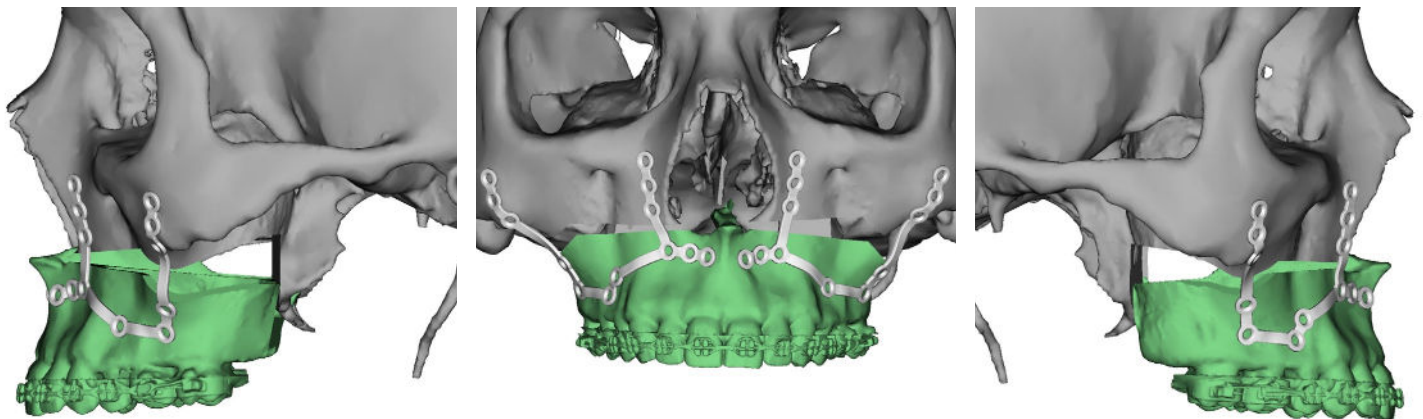
Marking Guides - Medial



Marking Guides - Lateral



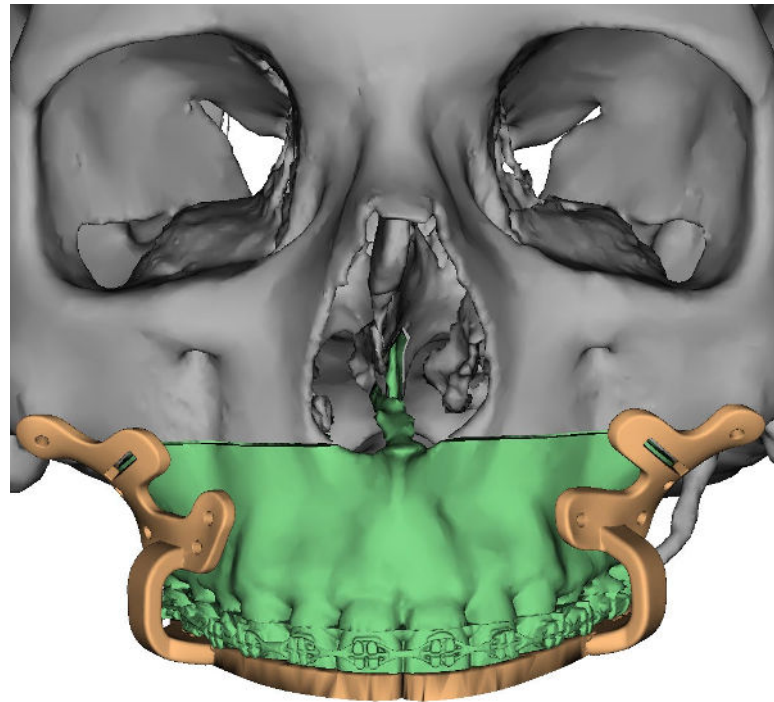
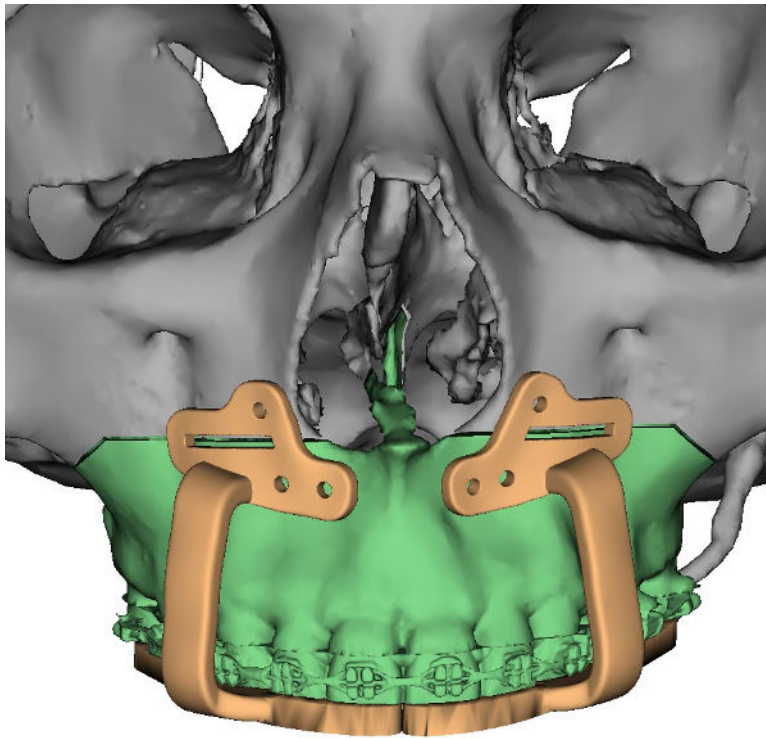
Stryker Customized Plates - # 2007021008



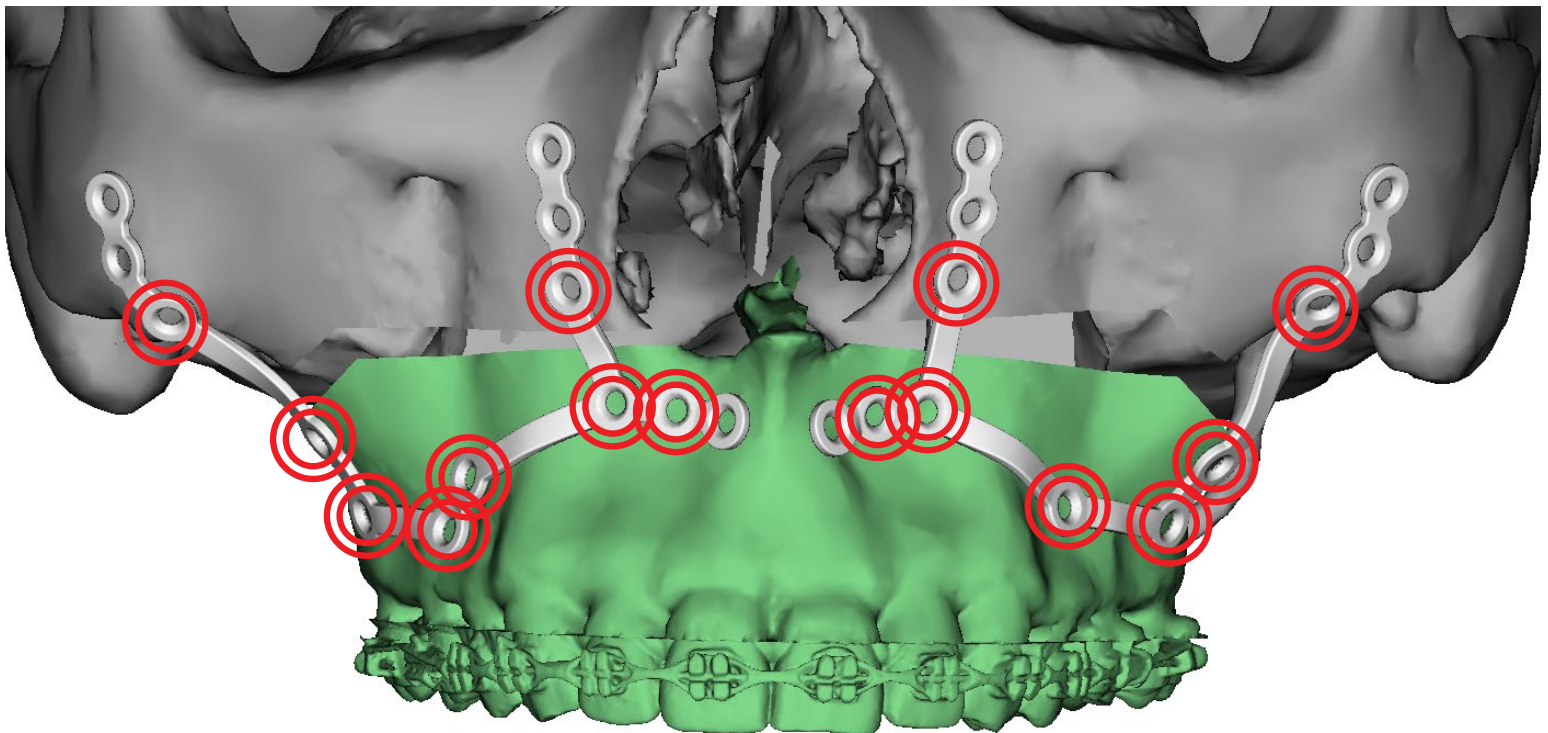
[More information about
LeFort Facial iD Guides](#)



Fixation and Predictive Holes for Stryker Customized Plates

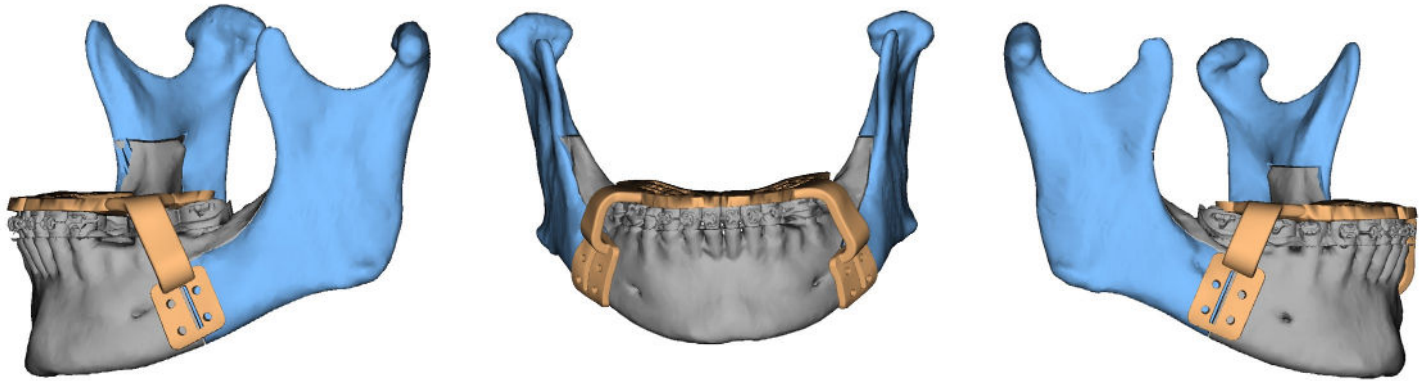


There are no fixation holes.

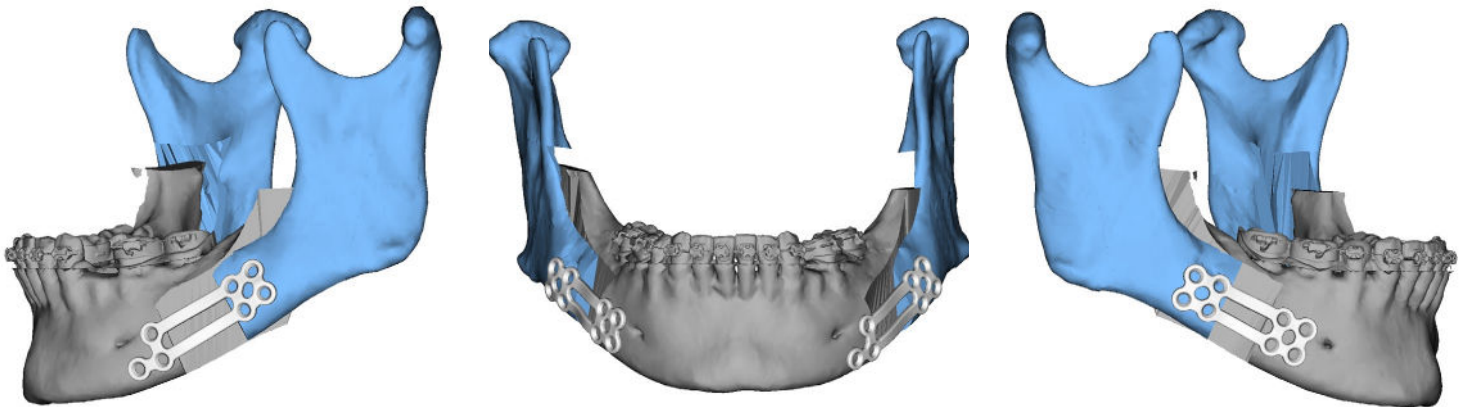


Mandible Marking Guides and Stryker Customized Plates

Marking Guides



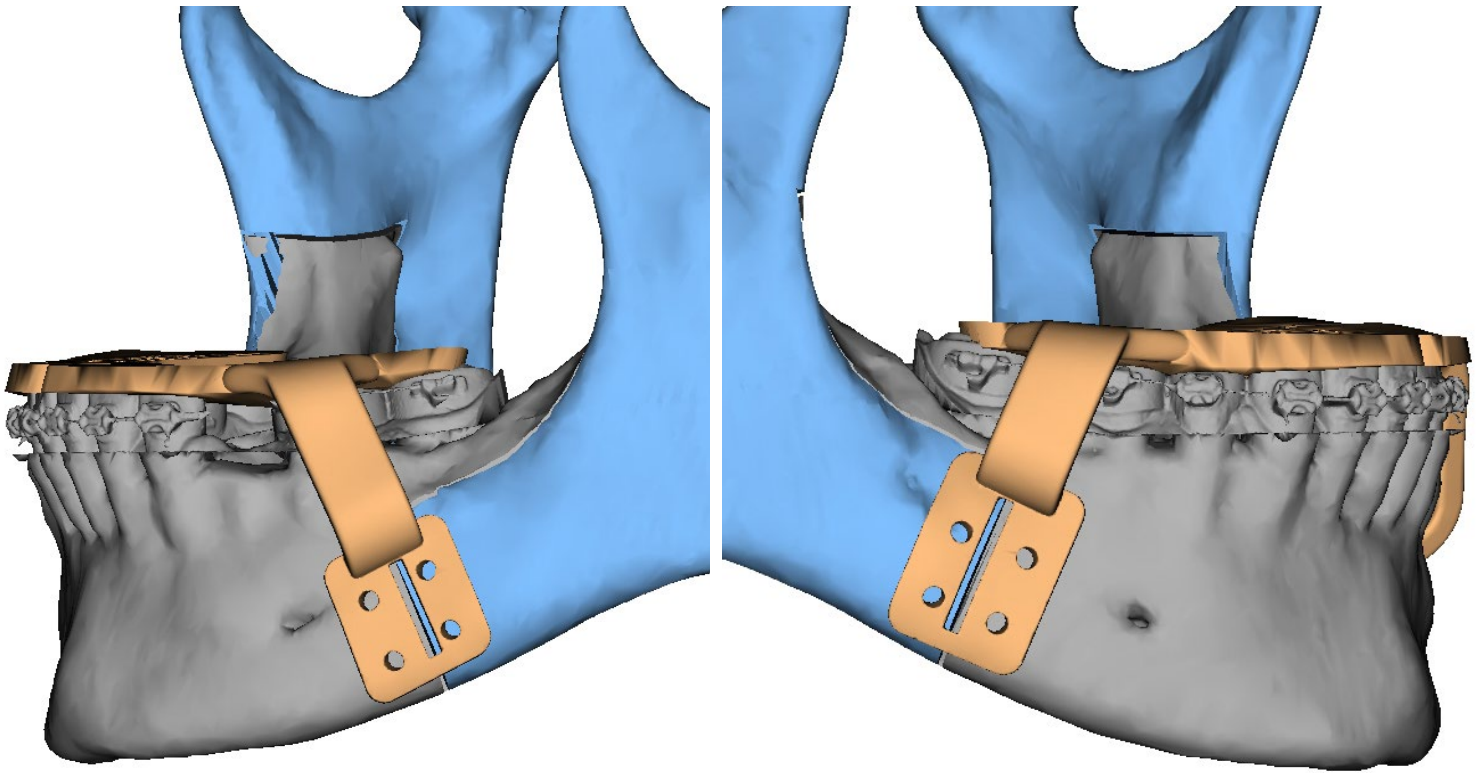
Stryker Customized Plates - # 2007021008



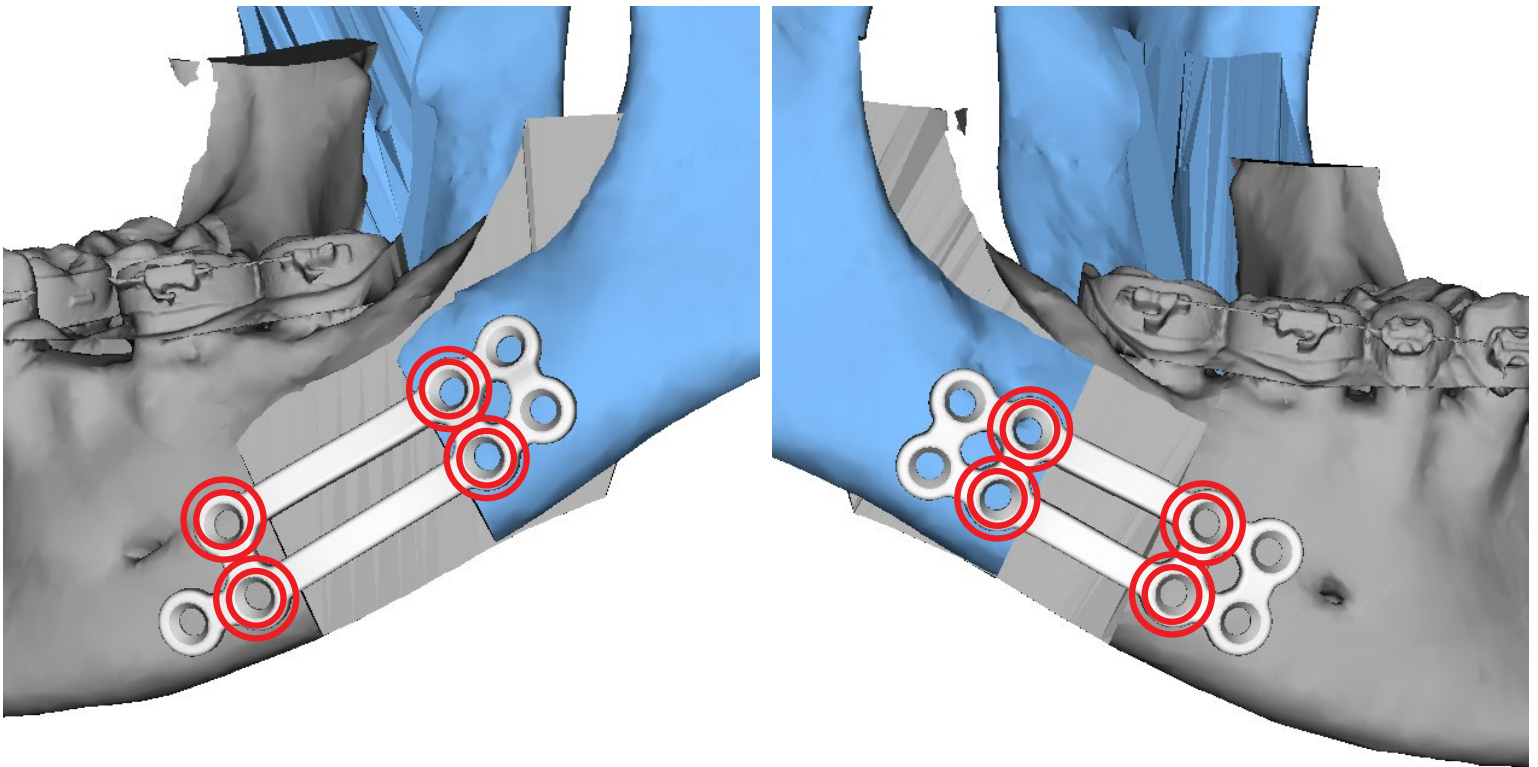
[More information about
BSSO Facial iD Guides](#)



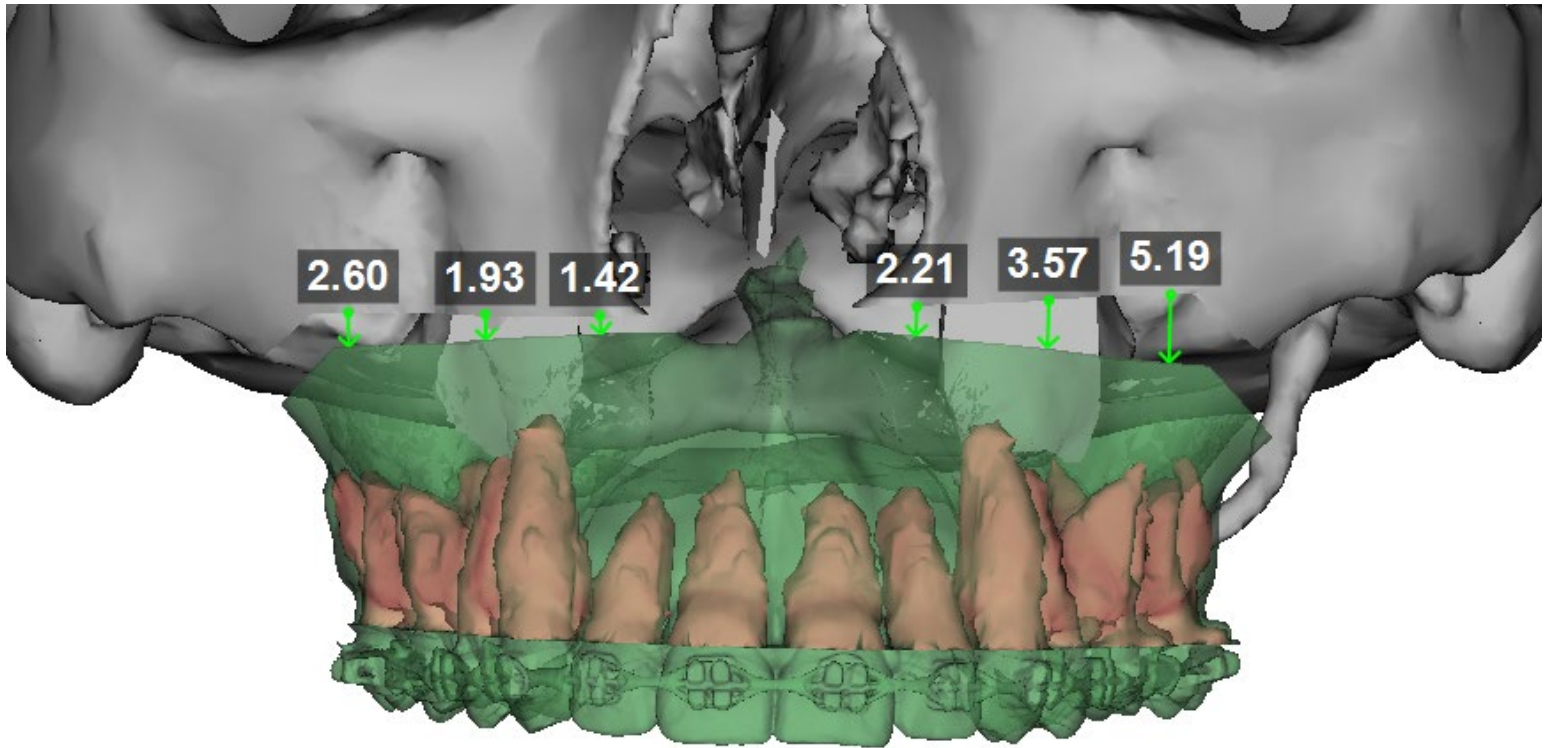
Fixation and Predictive Holes for Stryker Customized Plates



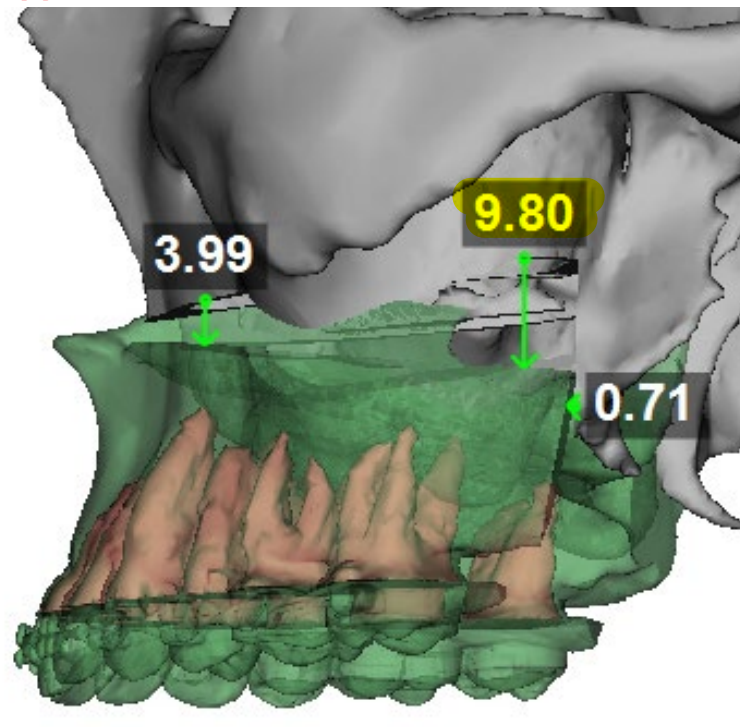
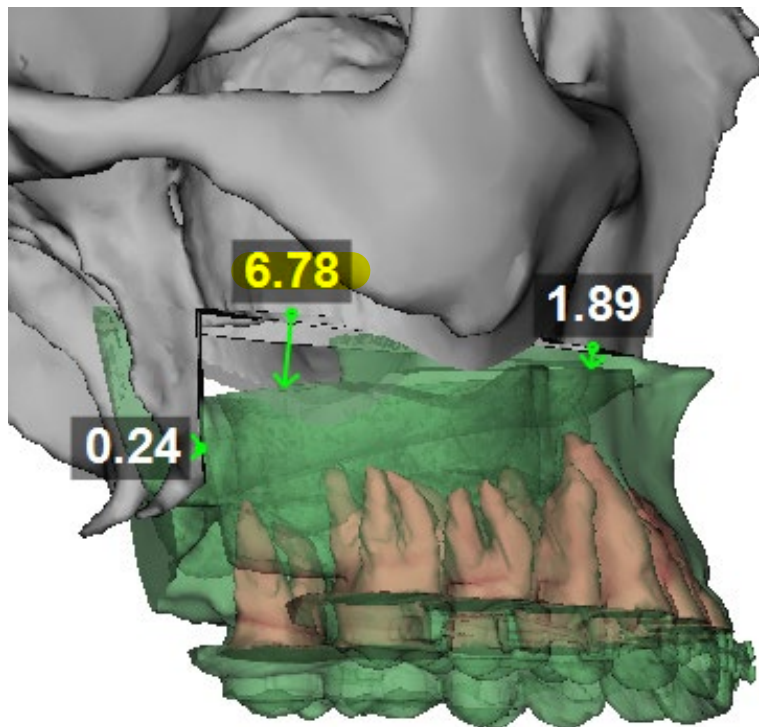
There are no fixation holes.



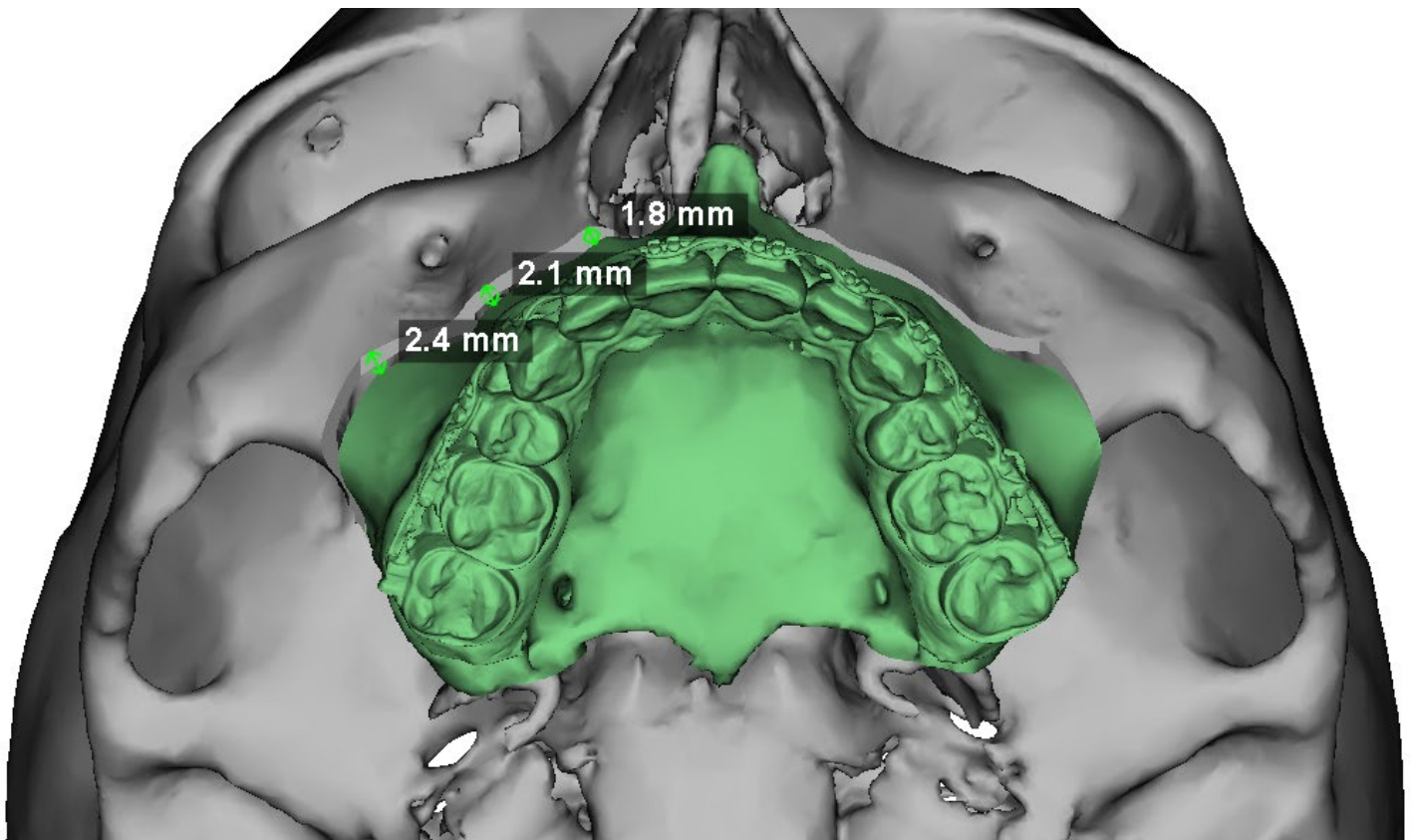
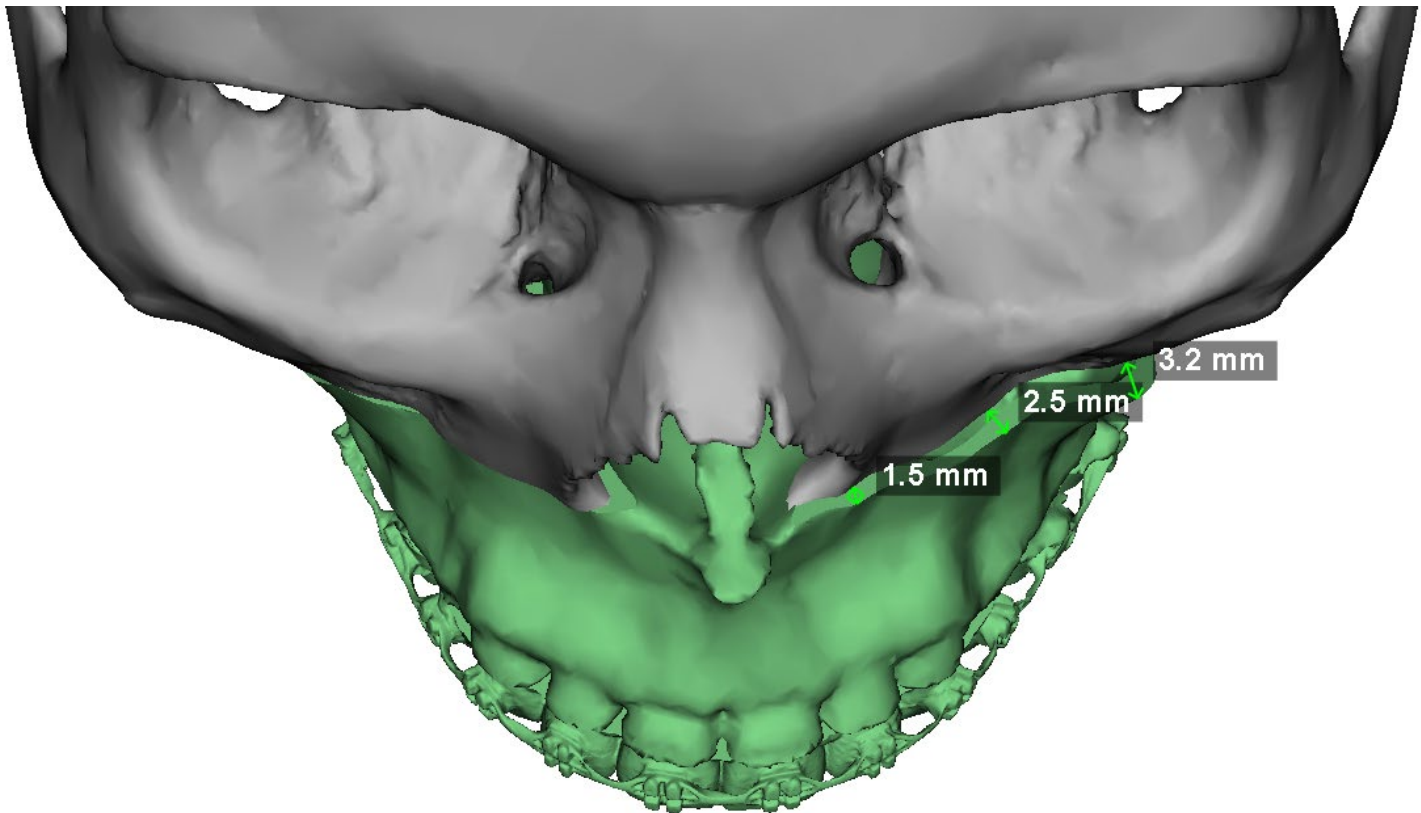
LeFort Overlap Analysis



Measurements outlined in red indicate an overlap.
Measurements are approximate.



LeFort Advancement

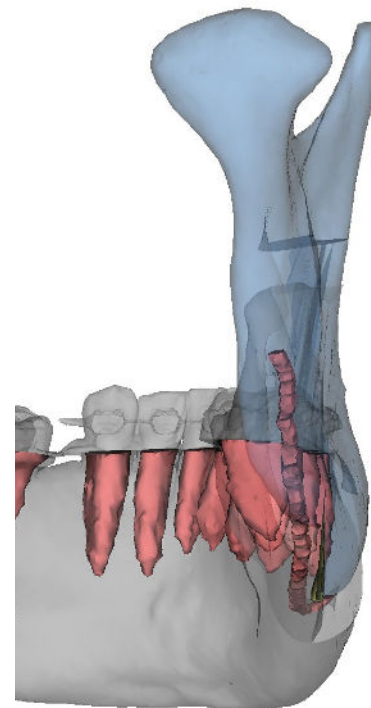
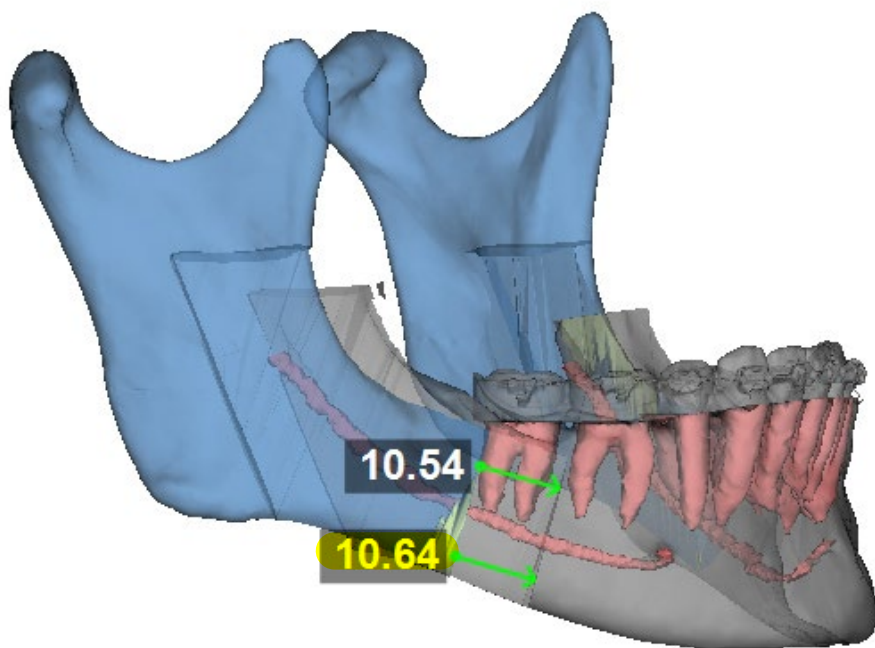


Measurements are approximate.

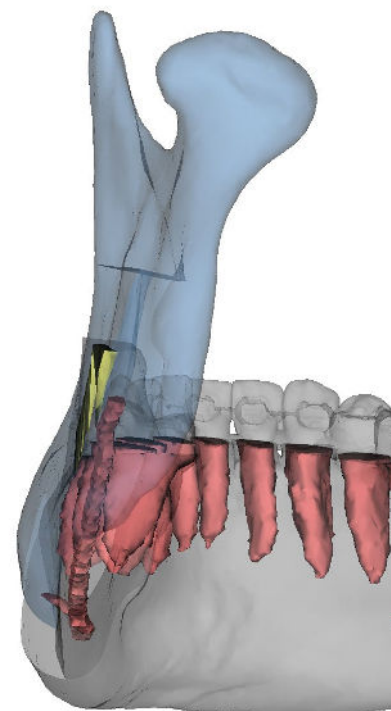
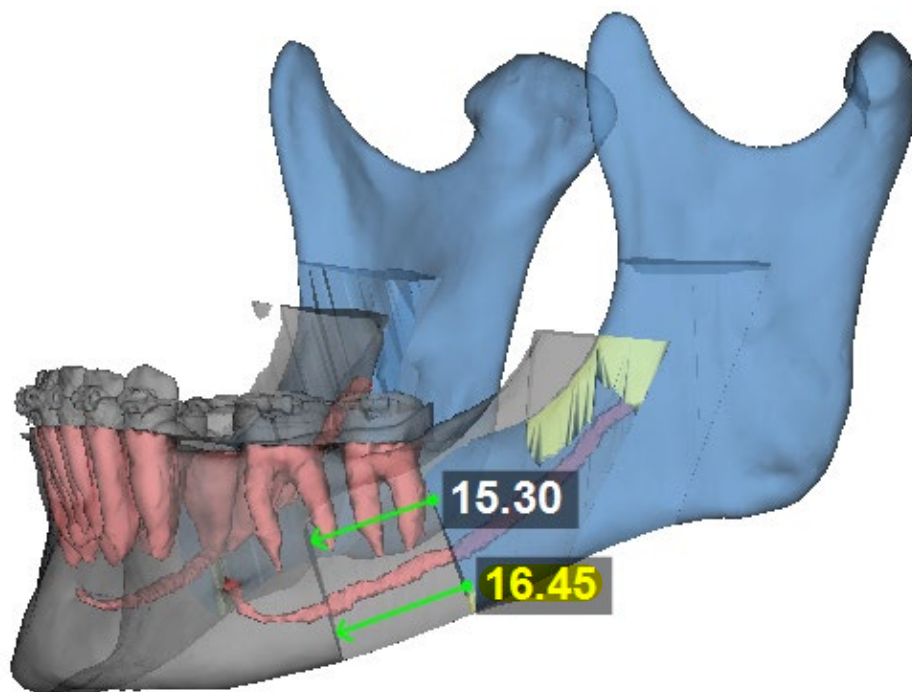
Patient: [REDACTED]
Dr. David Bell D.D.S., M.D.

Page 10 of 18

Proximal Segment Overlap Analysis

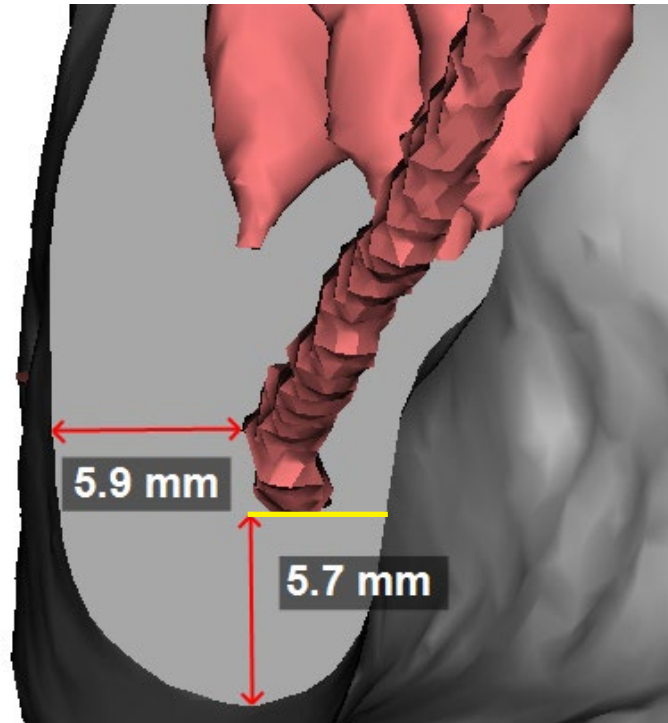
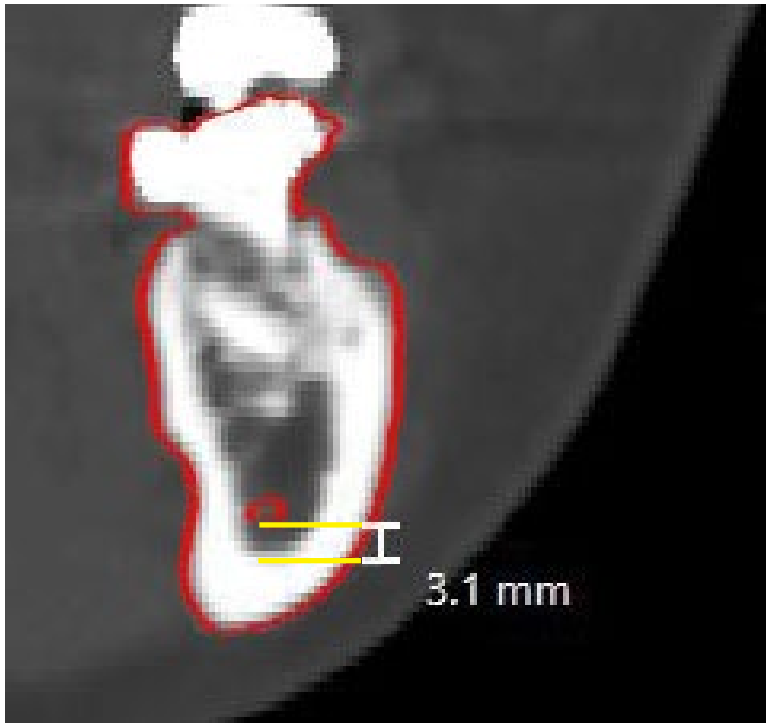


Measurements outlined in red indicate an overlap.
Measurements are approximate.

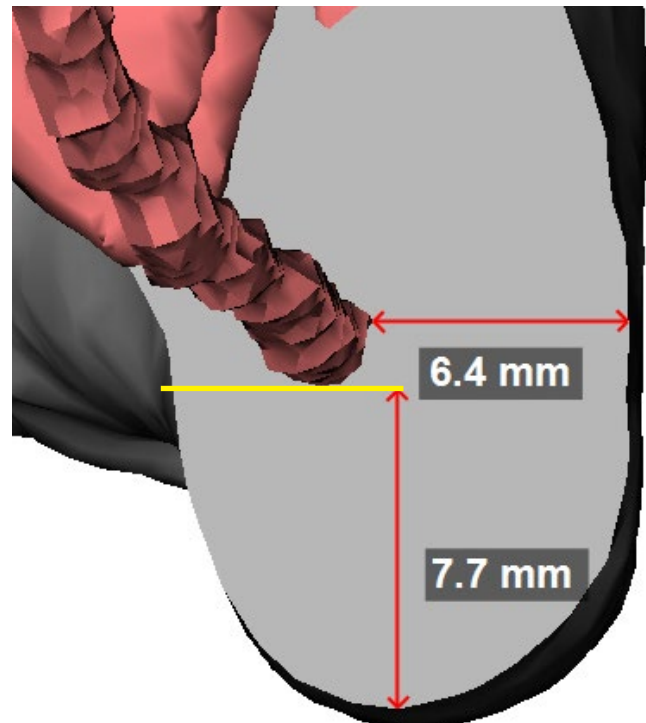
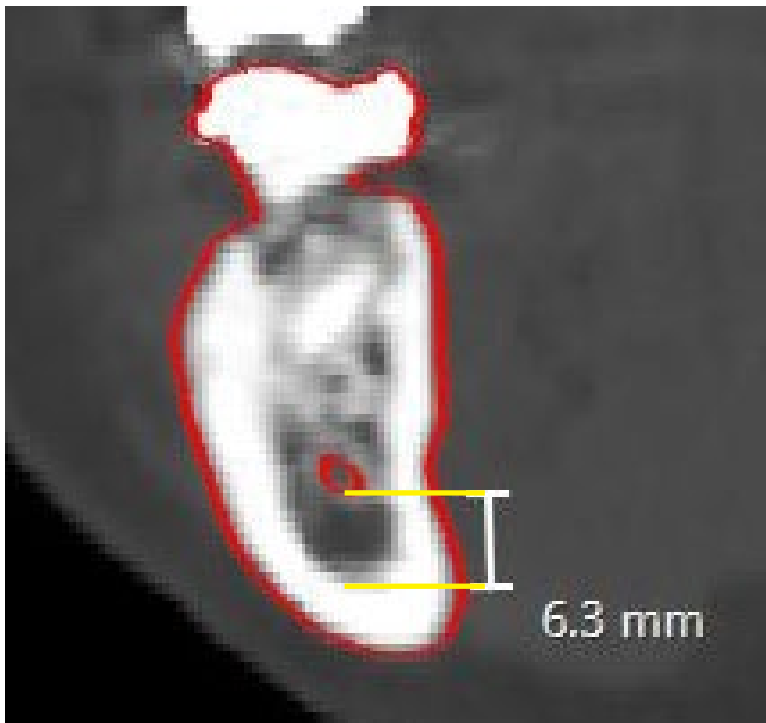


Nerve to Distal Mandible Measurements

Patient's Left



Patient's Right



Note: Measurements are made in a coronal slice based on scan orientation.

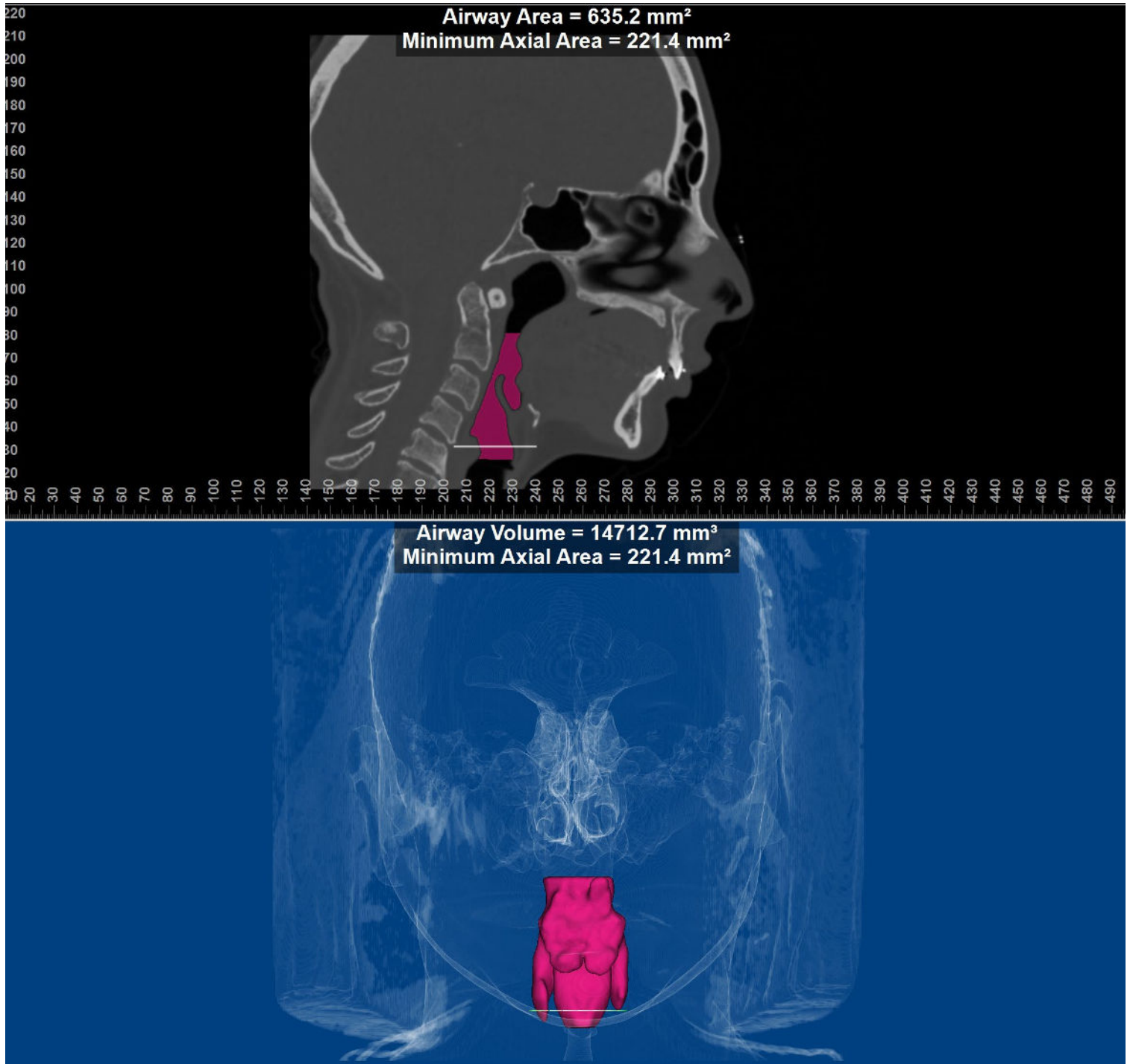
Note: Measurements are made based on osteotomy plane.

Measurements are approximate.

Patient: [REDACTED]
Dr. David Bell D.D.S., M.D.

Page 12 of 18

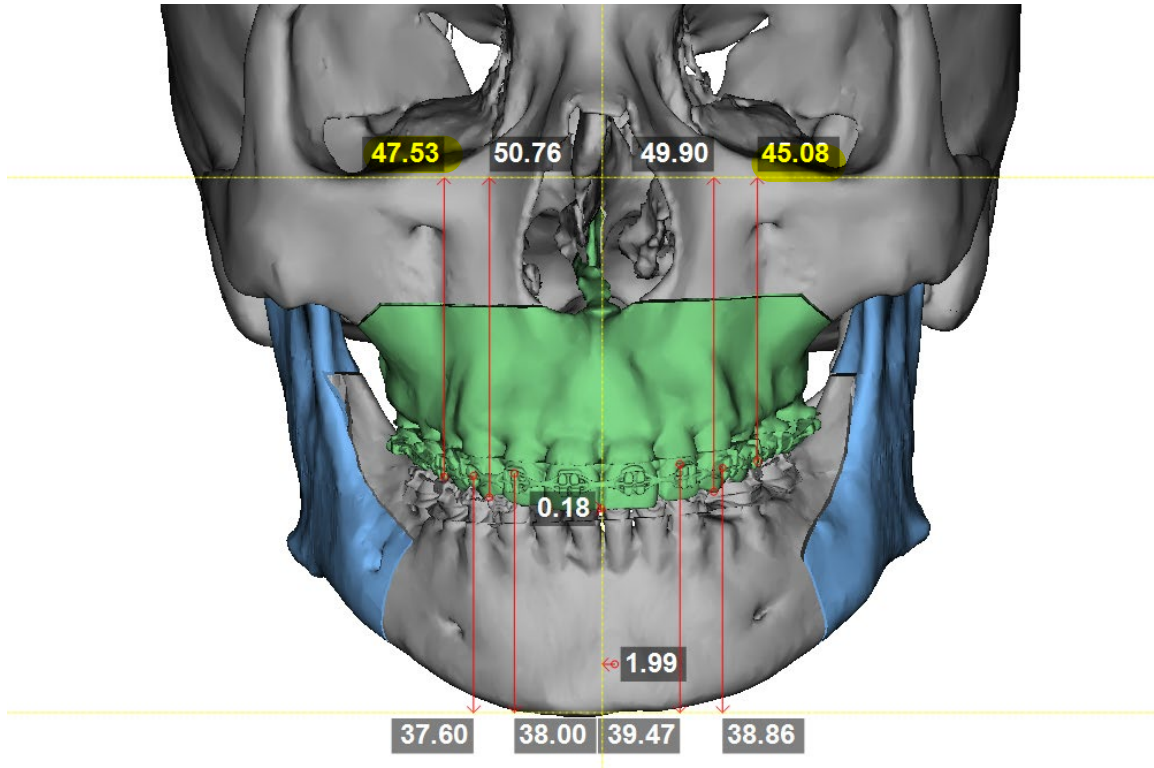
Airway Analysis



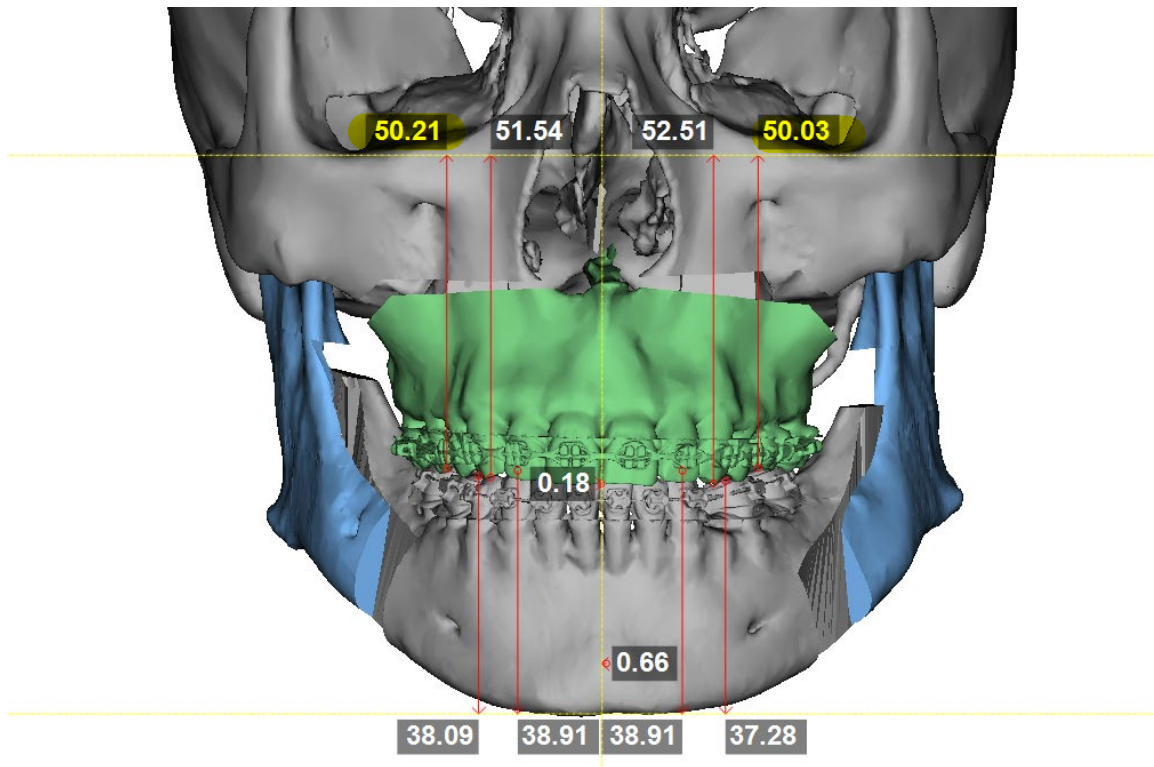
The analyzed airway volume is represented in pink and the minimum axial area at any point throughout the analyzed airway is represented by the white line. This area is the smallest 2-dimensional slice across a true horizontal.

Cant Analysis

Preoperative Position

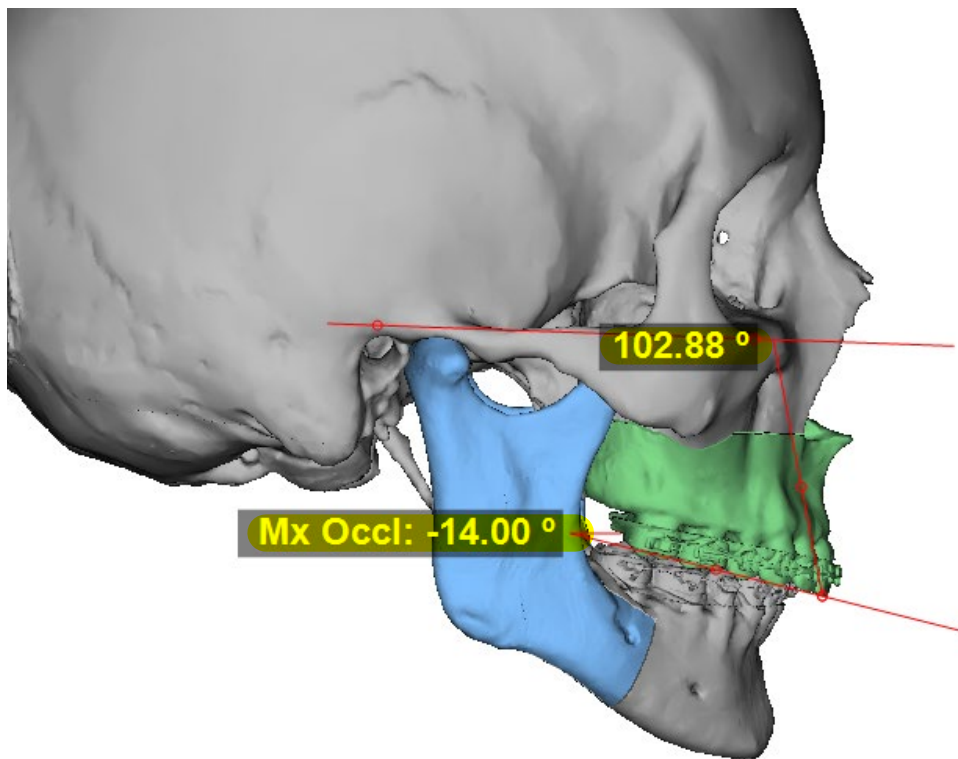


Postoperative Position



Occlusal Plane Angle Analysis

Preoperative Position



Postoperative Position

