

CASE REPORT

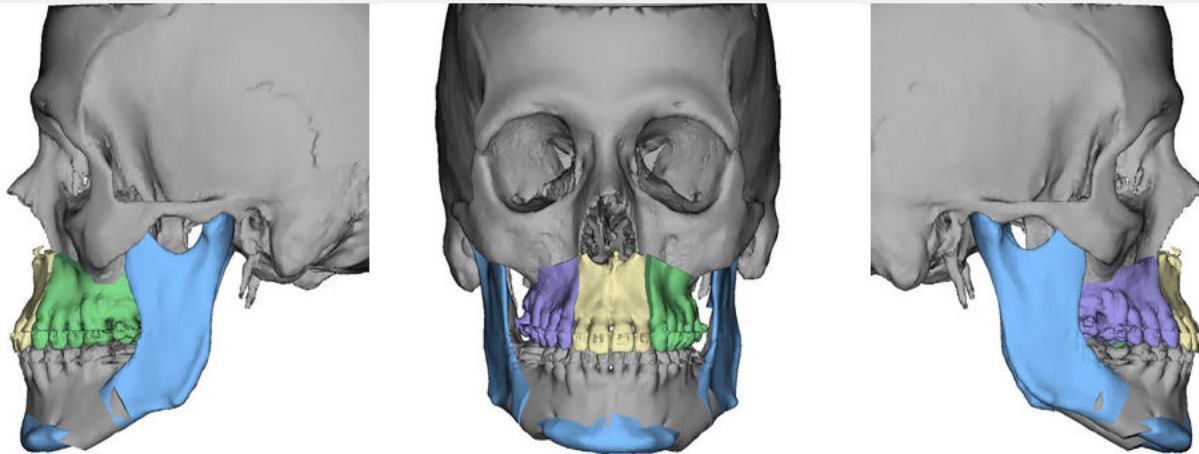
Surgeon and Patient Information

Surgeon Name: Dr. David Be D.D.S., M.D.
 Email Address: david.be@kp.org
 Phone Number: (559) 448-7605
 WO#: 130581

Patient Name: [REDACTED]
 Surgery Date: 1-16-2020
 Rep Name: [REDACTED]
 Rep Contact: [REDACTED]

Simulated Virtual Surgical Plan

Segmenta LeFort I, BSSO and Genopasty



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 implants, 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 to 3D Systems, Inc. Please note that 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

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.

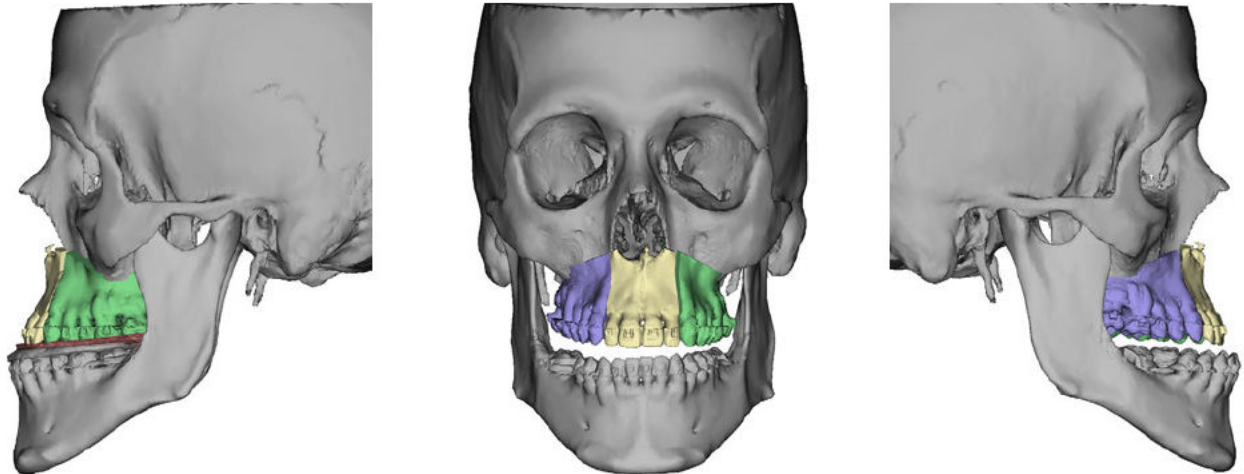
Point	Name	Anterior/Posterior	Left/Right	Up/Down
ANS	Anterior Nasal Spine	5.08mm Anterior	0.45mm Left	4.25mm Up
A	A Point	4.76mm Anterior	0.66mm Left	4.26mm Up
ISU1	Midline of Upper Incisor	4.00mm Anterior	1.00mm Left	4.00mm Up
U3L	Upper Left Canine	3.96mm Anterior	0.93mm Left	4.68mm Up
U6L	Upper Left Anterior Molar (mesiobuccal cusp)	3.48mm Anterior	0.18mm Left	3.96mm Up
U3R	Upper Right Canine	3.52mm Anterior	0.35mm Left	4.38mm Up
U6R	Upper Right Anterior Molar (mesiobuccal cusp)	4.11mm Anterior	0.66mm Right	5.50mm Up
ISL1	Midline of Lower Incisor	7.34mm Posterior	0.84mm Left	10.01mm Up
L6L	Lower Left Anterior Molar (mesiobuccal cusp)	7.53mm Posterior	0.85mm Left	7.08mm Up
L6R	Lower Right Anterior Molar (mesiobuccal cusp)	7.31mm Posterior	0.81mm Left	9.56mm Up
B	B Point	4.93mm Posterior	0.49mm Right	9.79mm Up
Pog.	Pogonion	4.52mm Posterior	0.04mm Left	15.06mm Up

Virtual Planning Work Flow

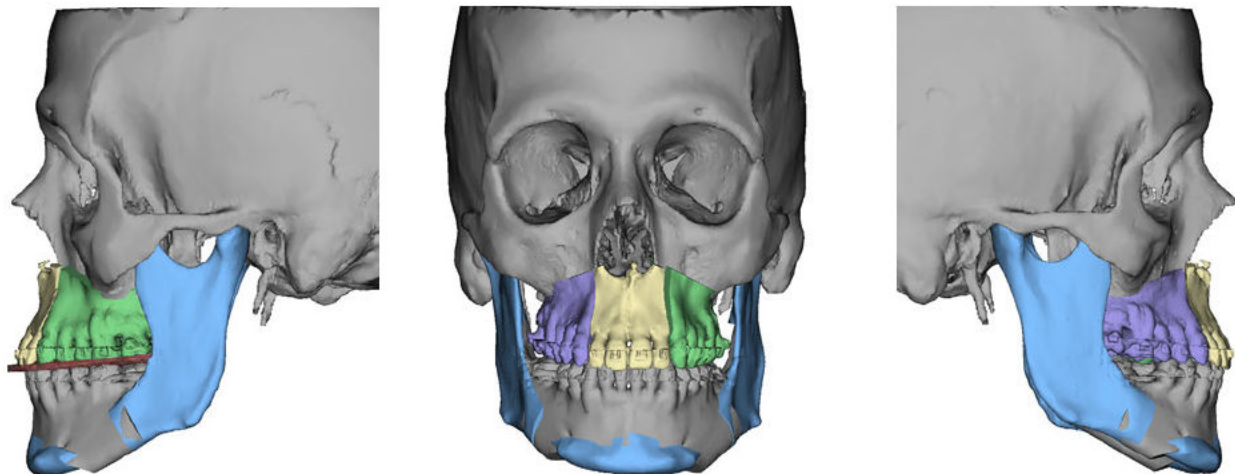
Preoperative Position



Intermediate Position

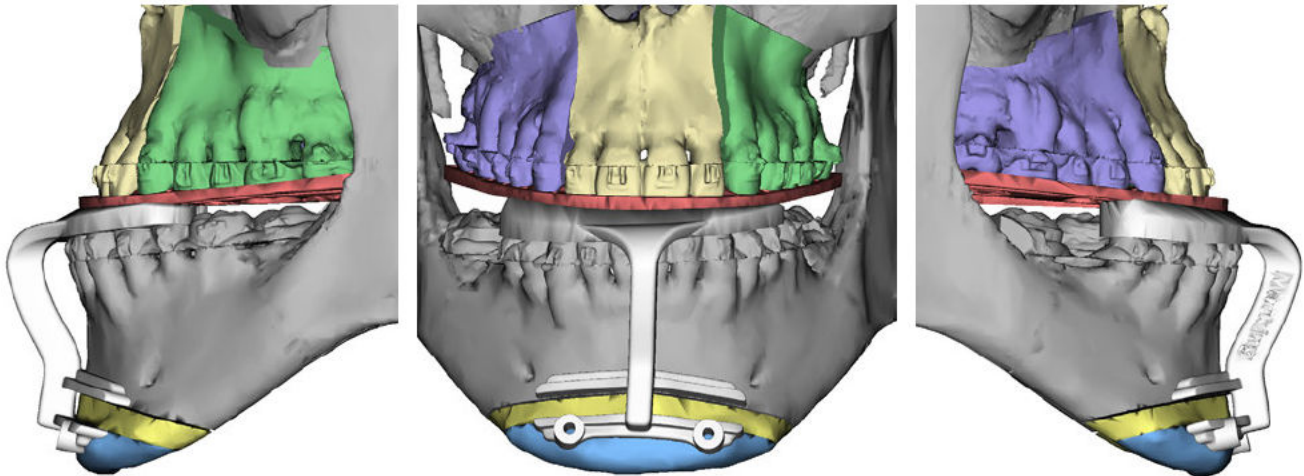


Postoperative Position

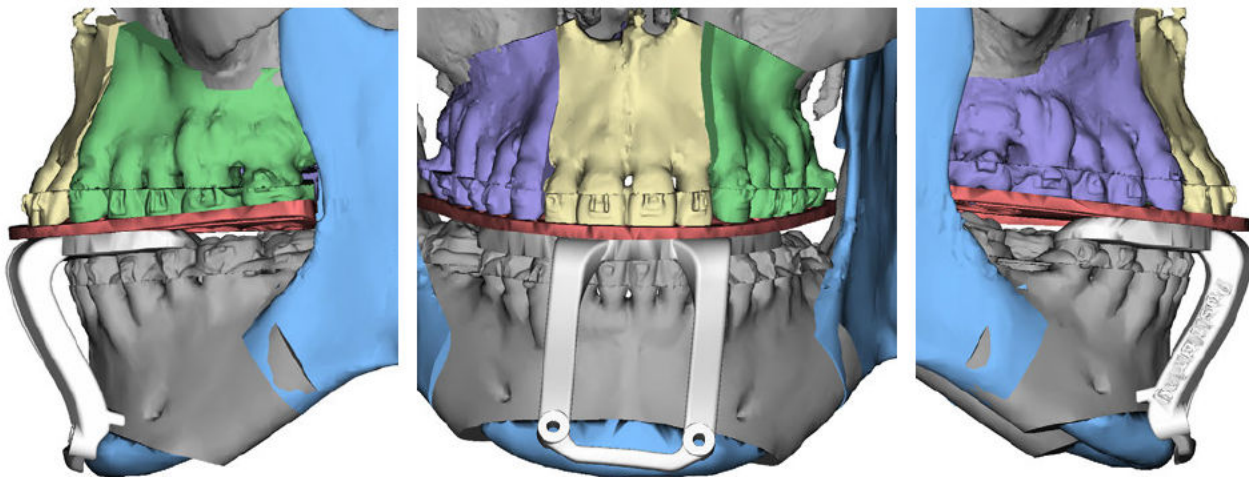


Genioplasty Guides

Marking Guide



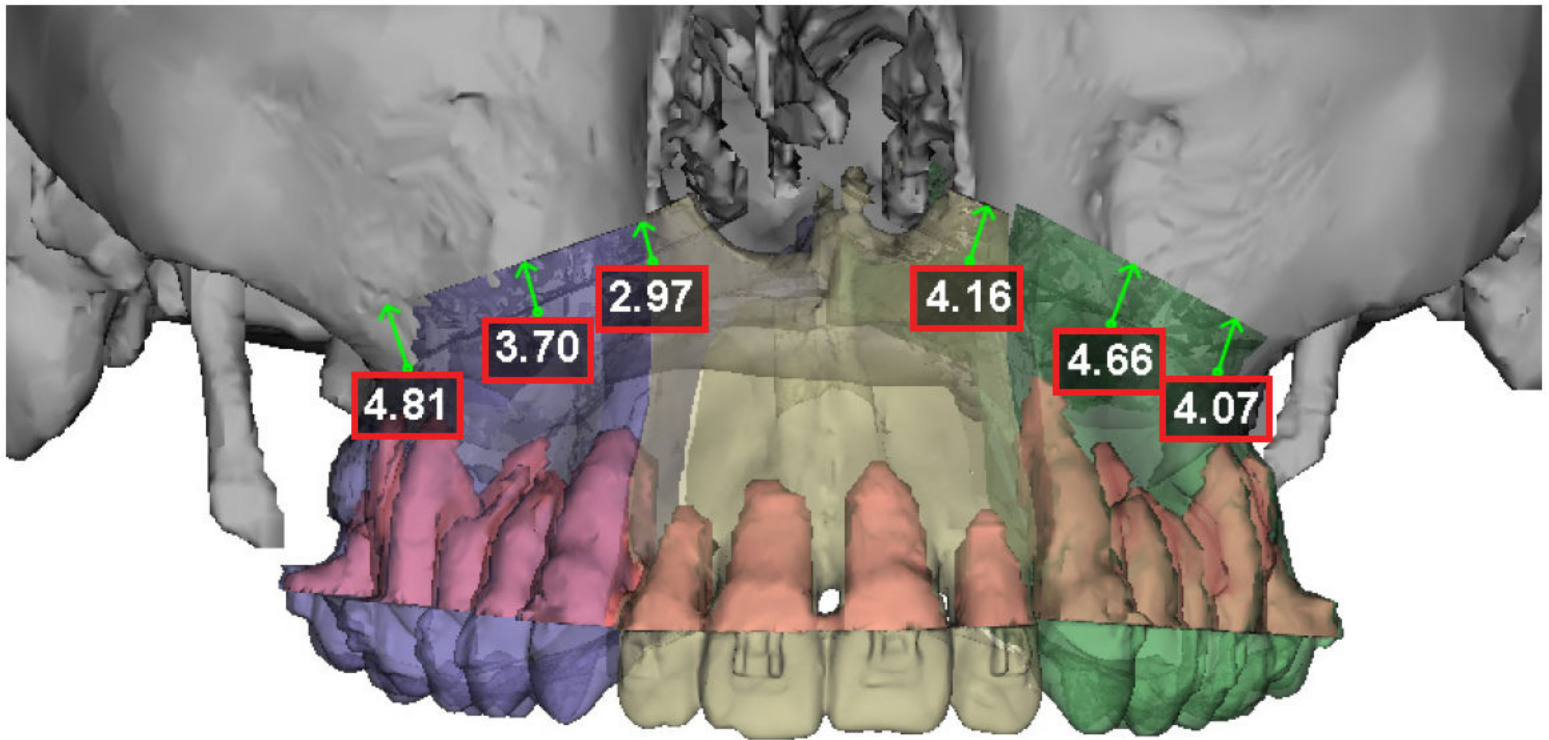
Positioning Guide



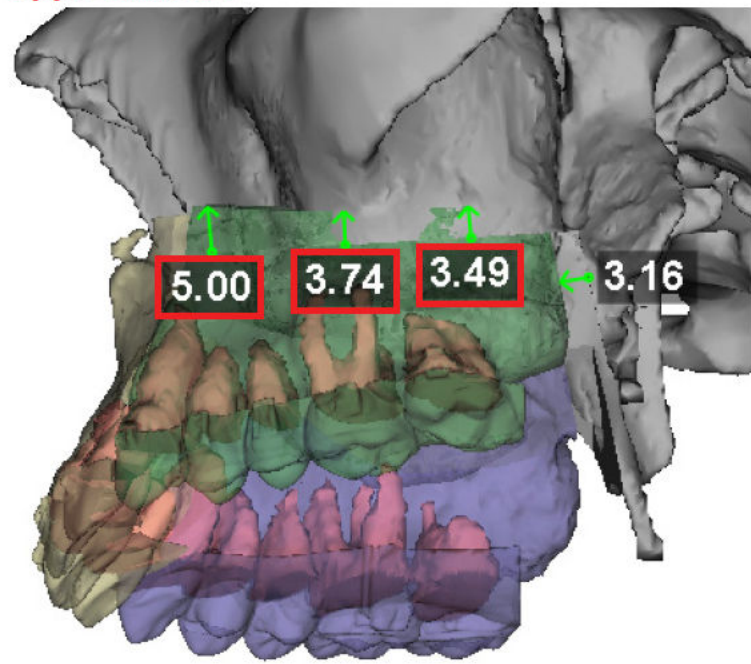
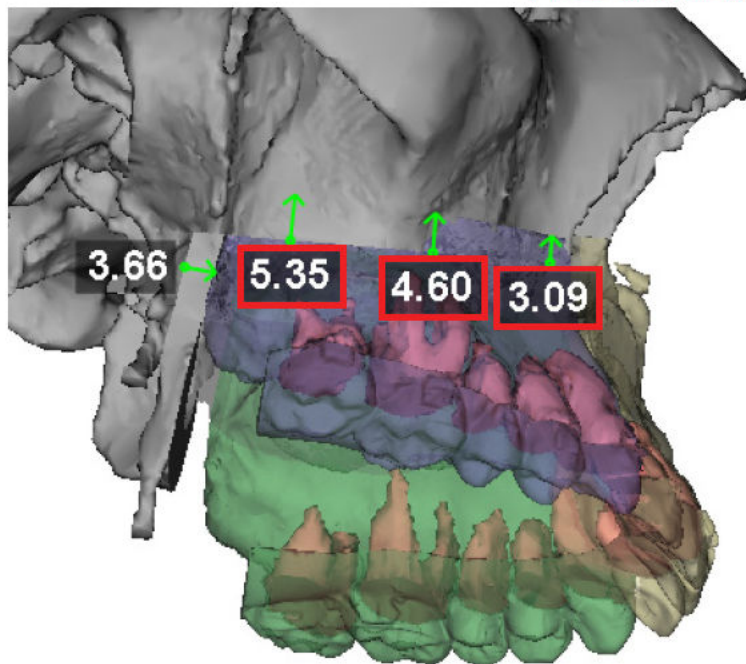
More information about
[Genioplasty Guides](#)



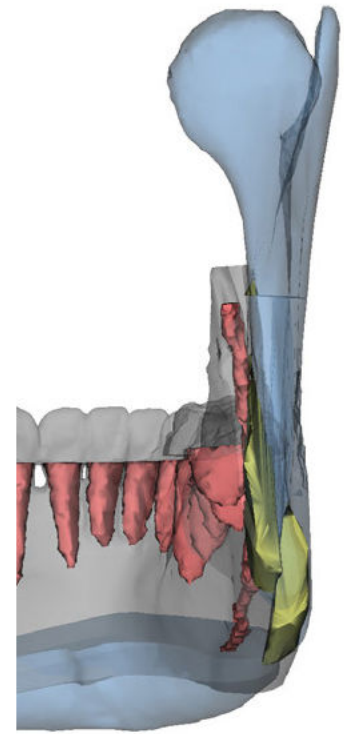
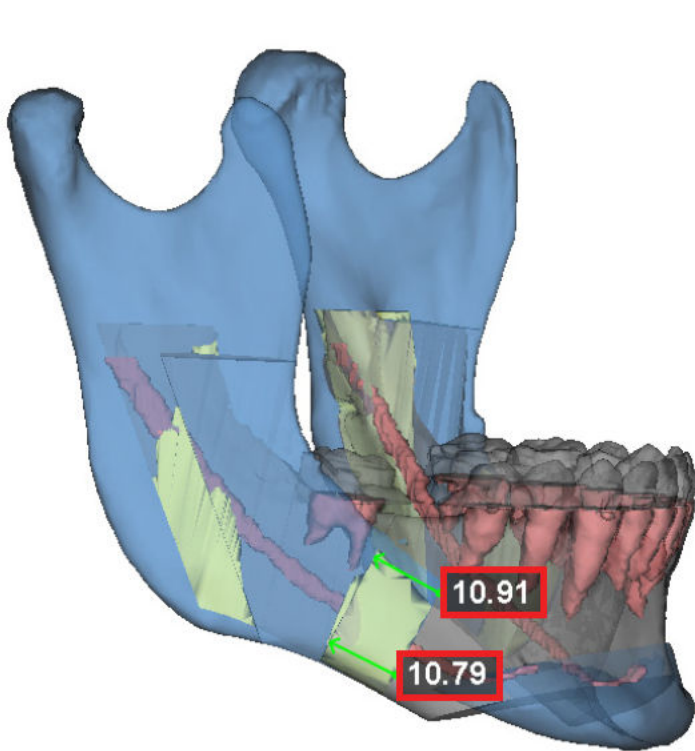
LeFort Overlap Analysis



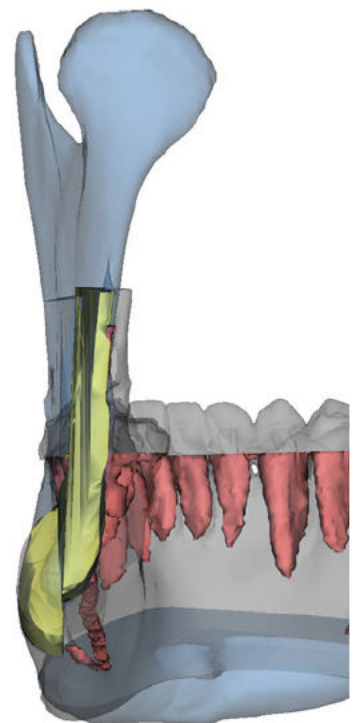
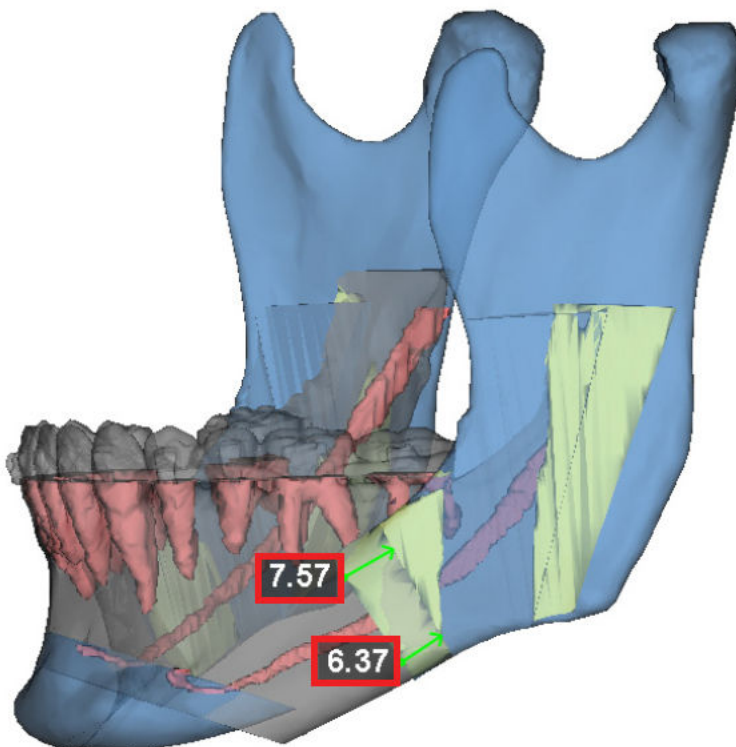
Measurements outlined in red indicate an overlap.
Measurements are approximate.



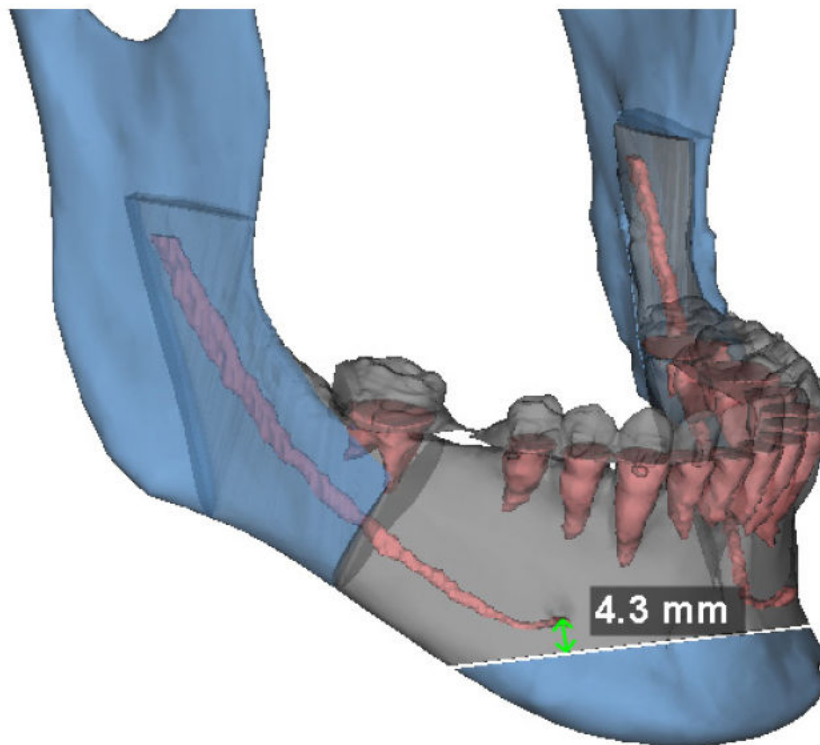
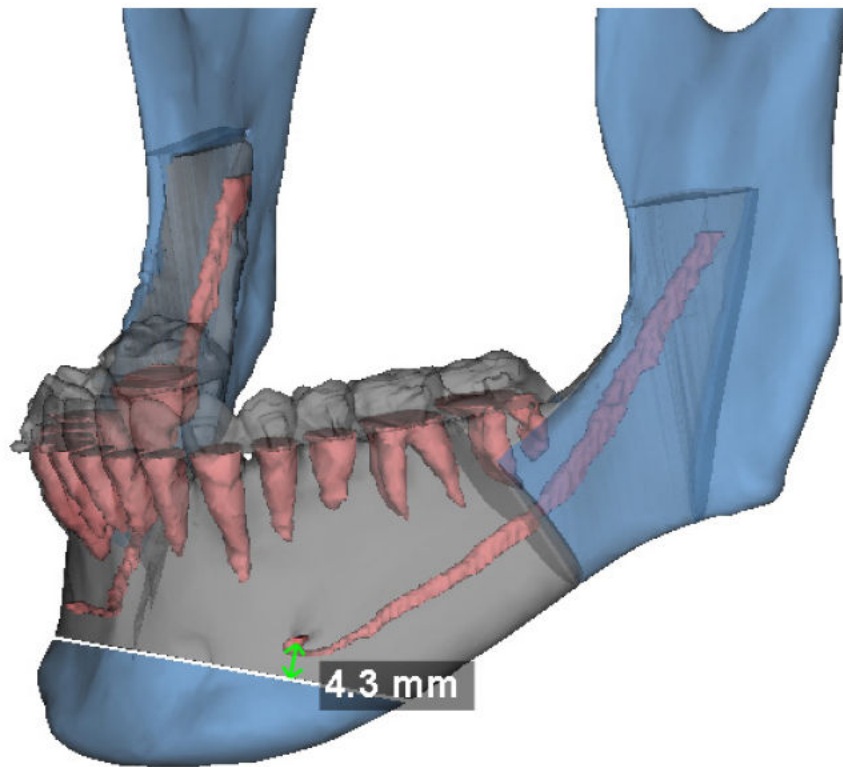
Proximal Segment Overlap Analysis



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

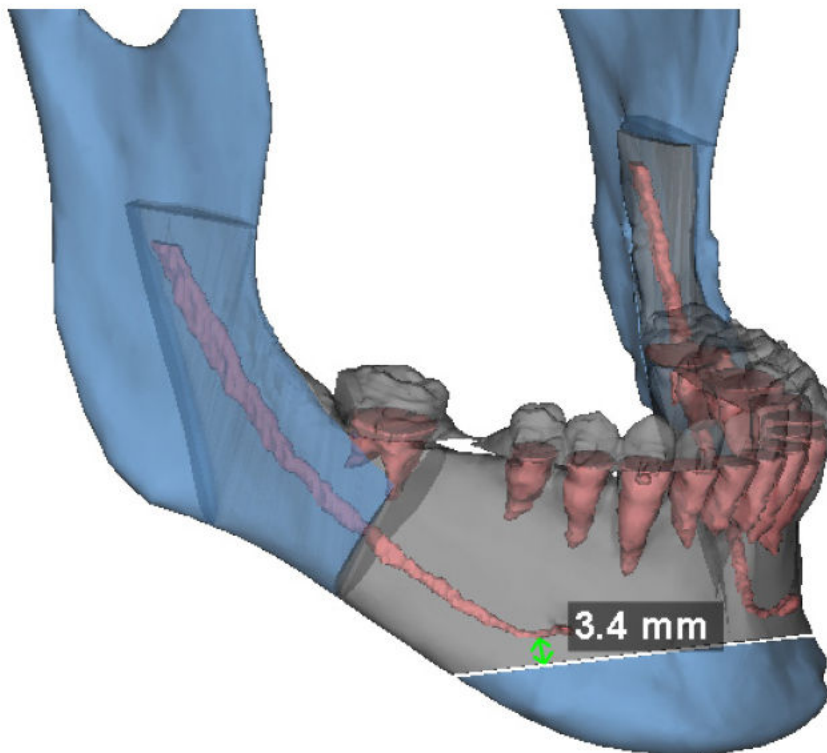
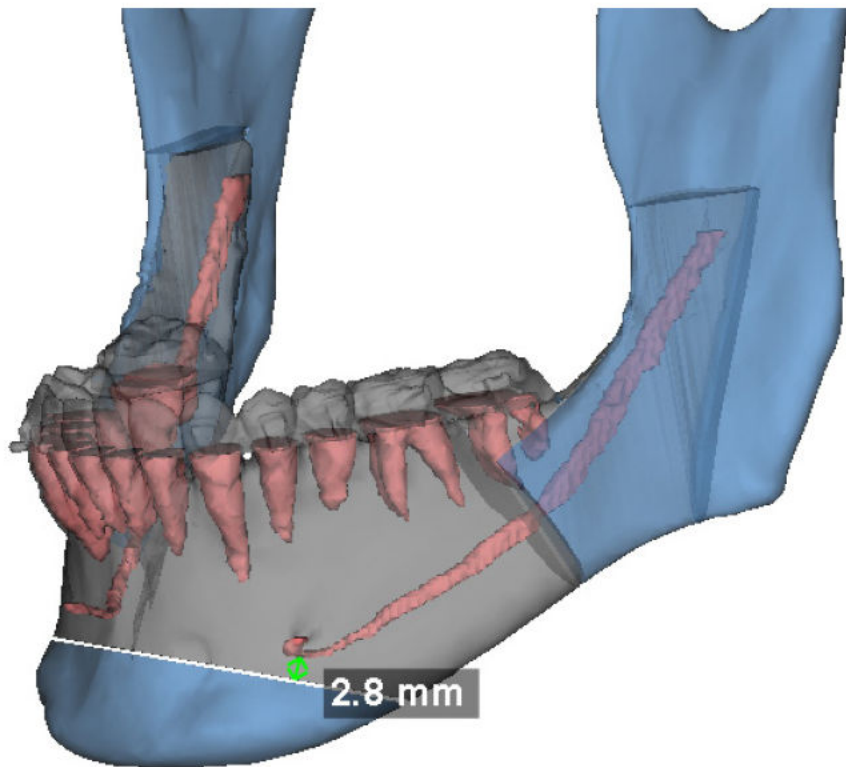


Foramen to Genioplasty Measurements



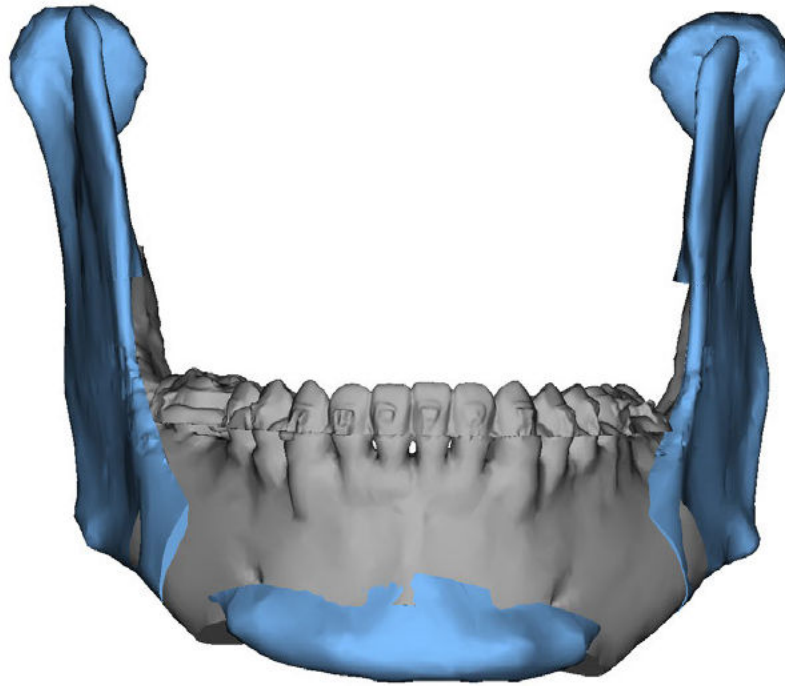
Measurements are approximate.

Nerve Loop to Genioplasty Measurements

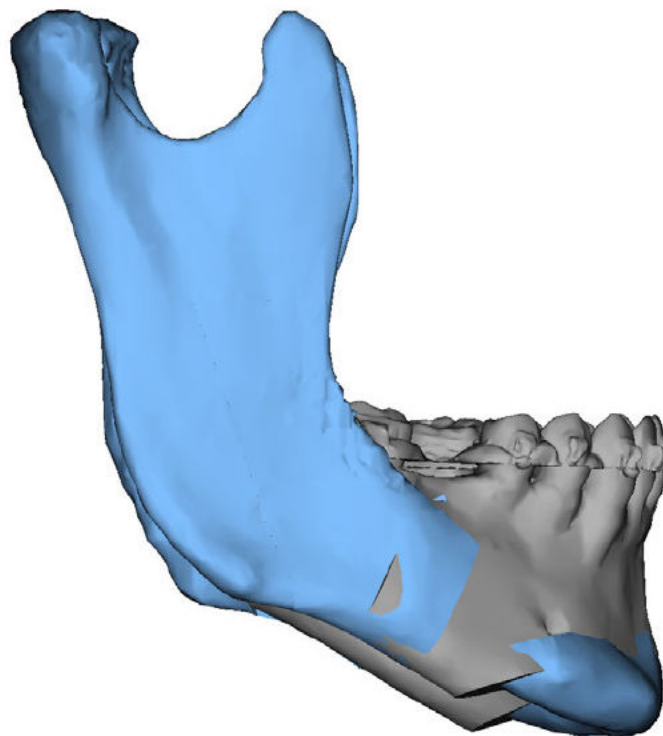


Measurements are approximate.

Genioplasty Movement Analysis



→ 1.50 mm

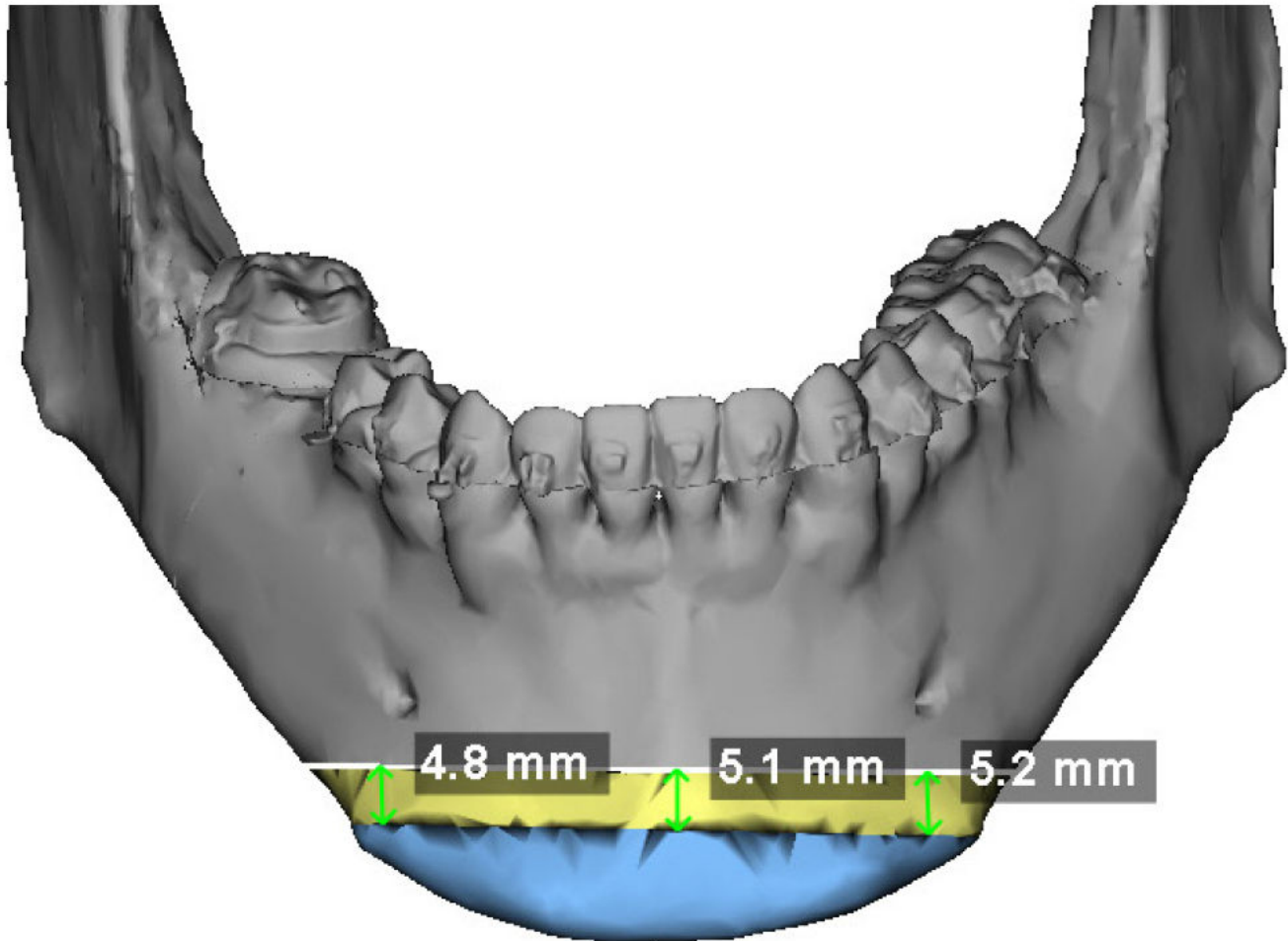


↑ 5.00 mm

→ 1.50 mm

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Dr Dav d Be DDS, MD
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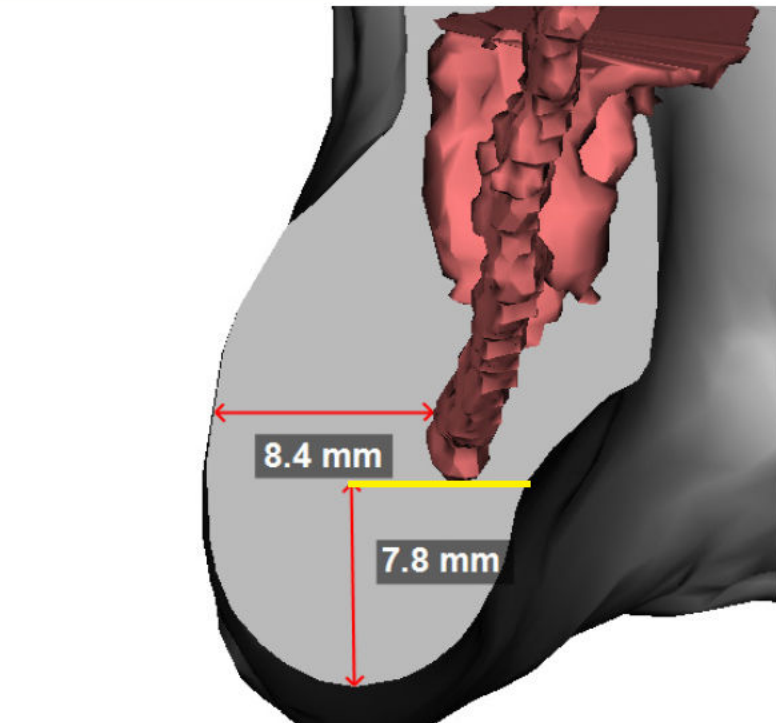
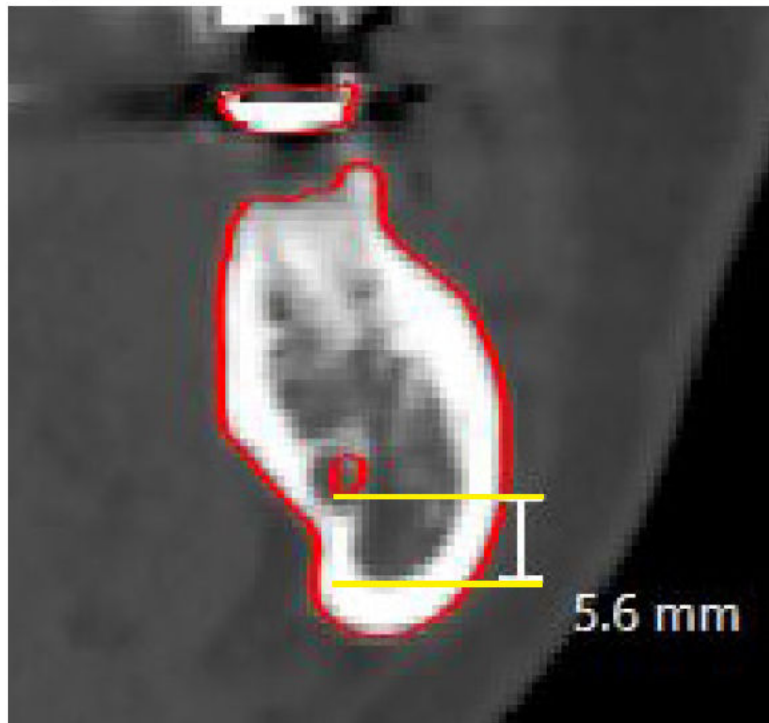
Genioplasty Measurement Analysis



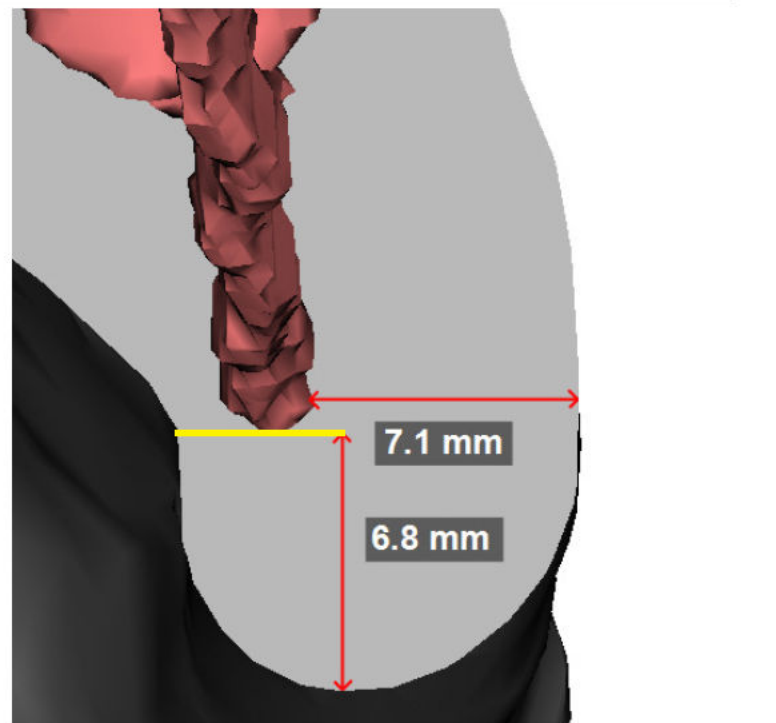
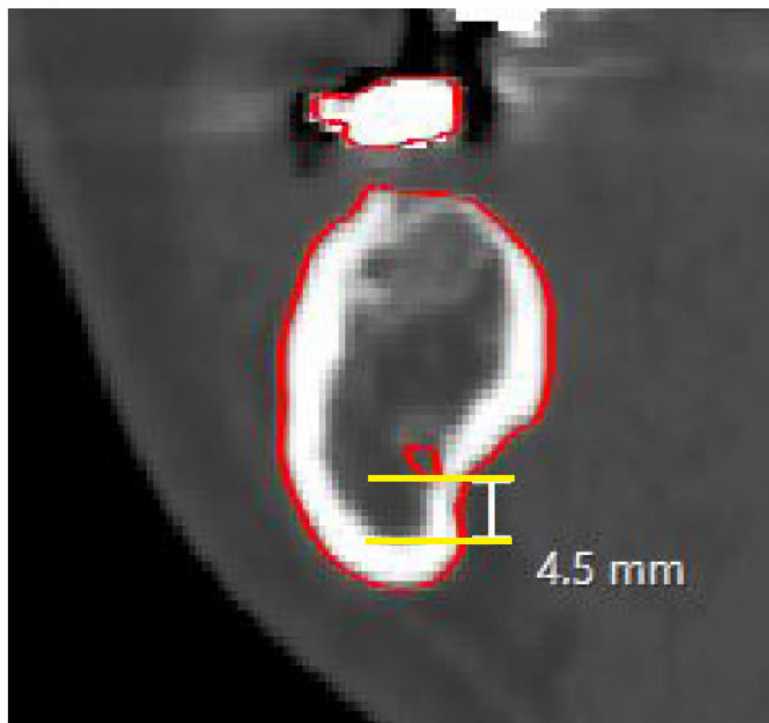
Measurements are approximate.

Nerve to Distal Mandible Measurements

Patient's Left



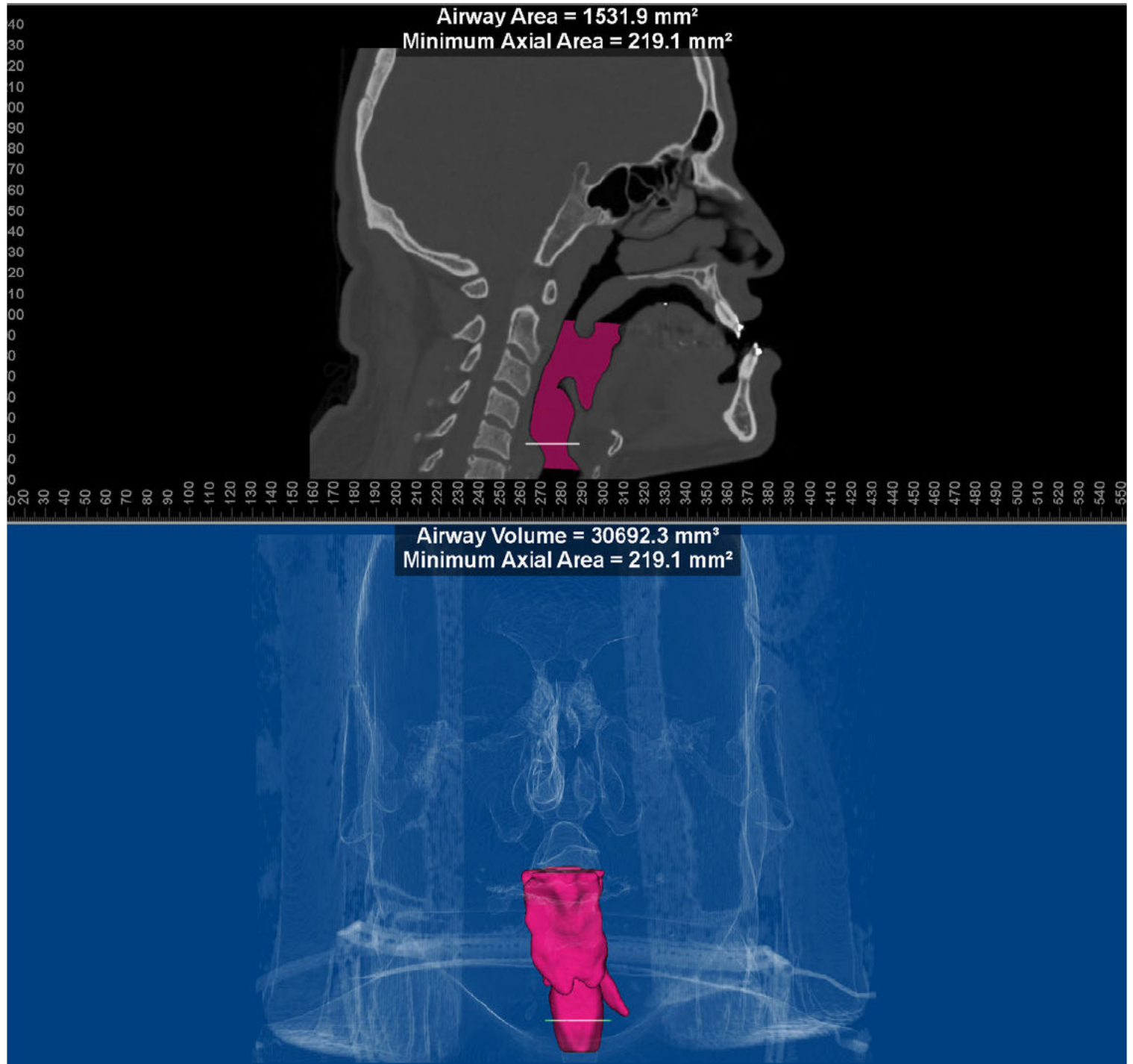
Patient's Right



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

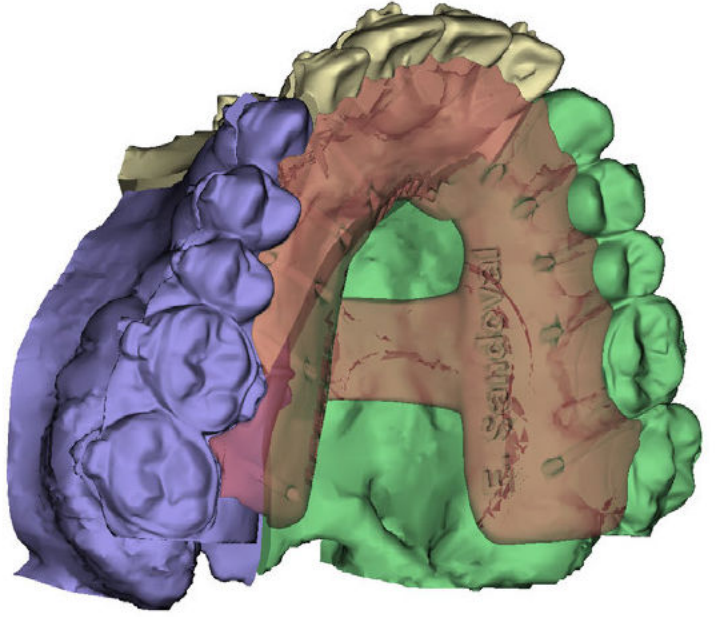
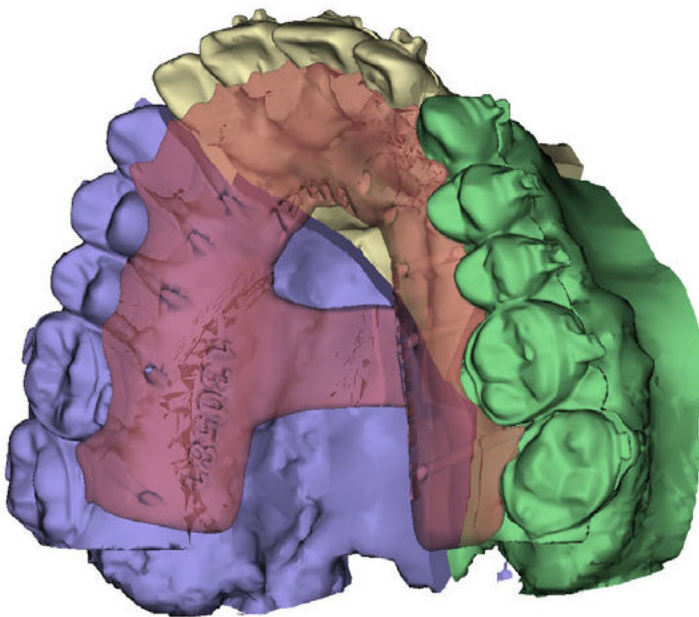
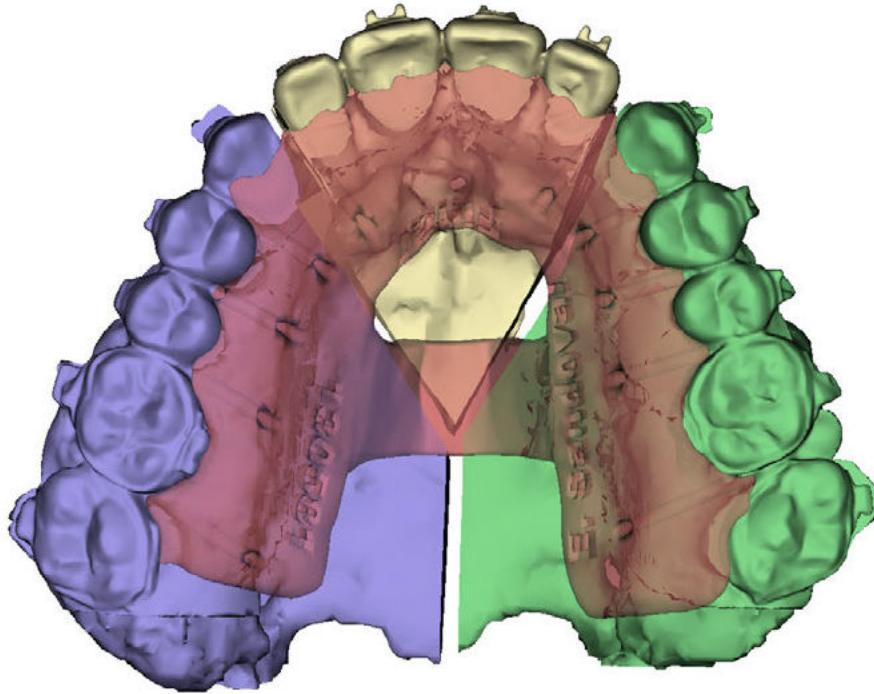
Note: Measurements are made based on osteotomy plane.

Airway Analysis



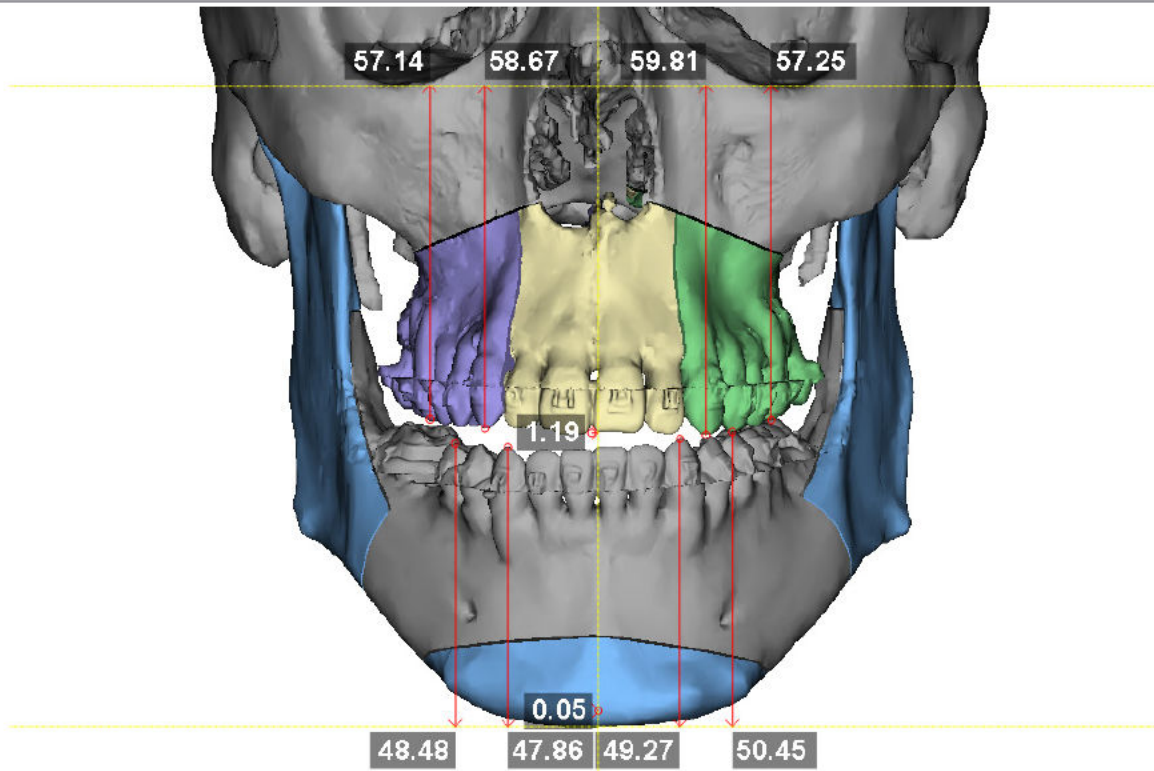
The analyzed airway volume is represented in pink and the minimum axial area at any point throughout the analyzed airway is represented by the white line. This area is the smallest 2-dimensional slice across a true horizontal.

Palatal Insert Images

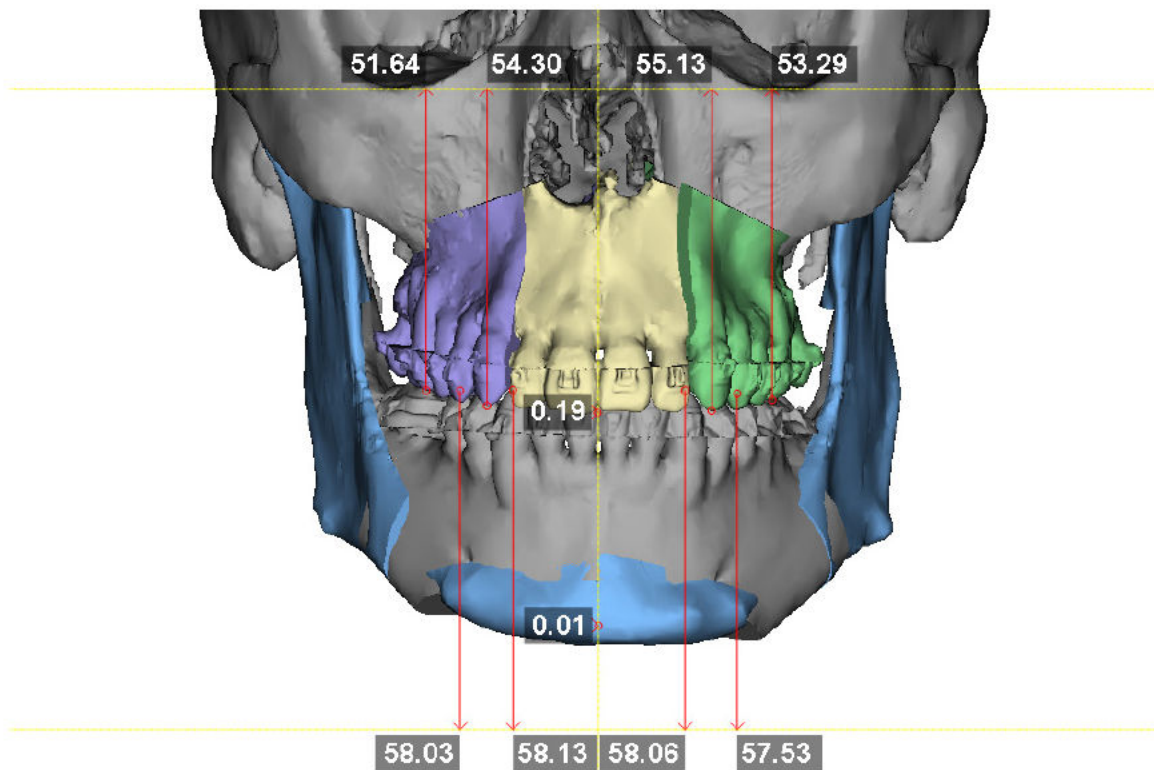


Cant Analysis

Preoperative Position

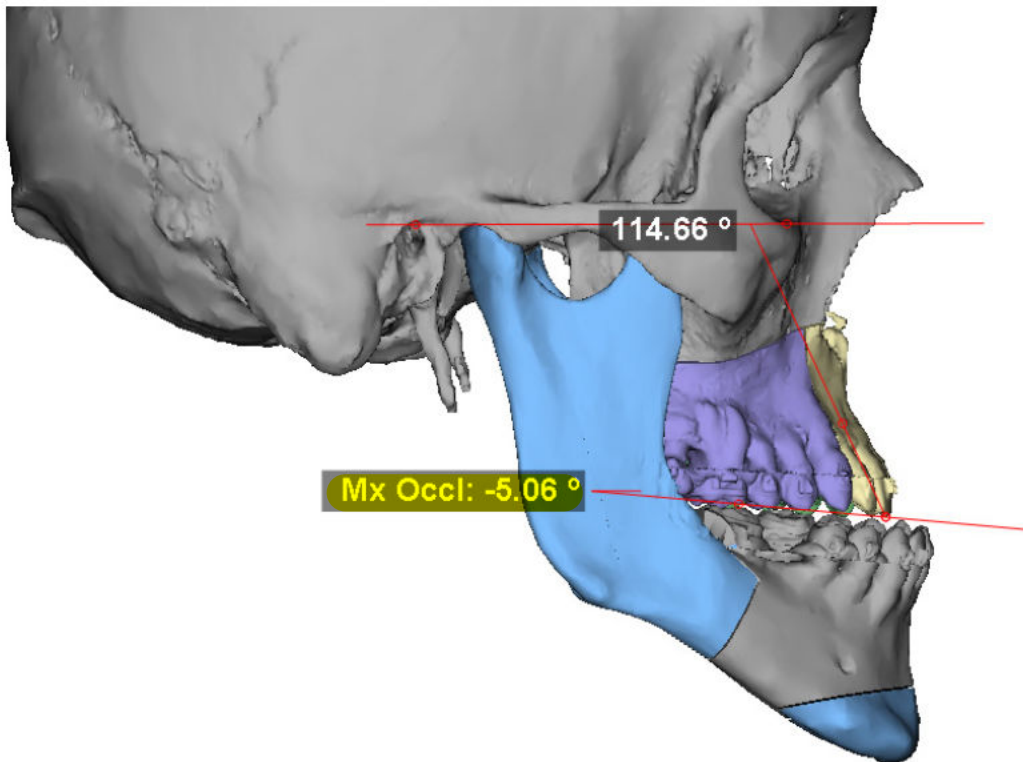


Postoperative Position

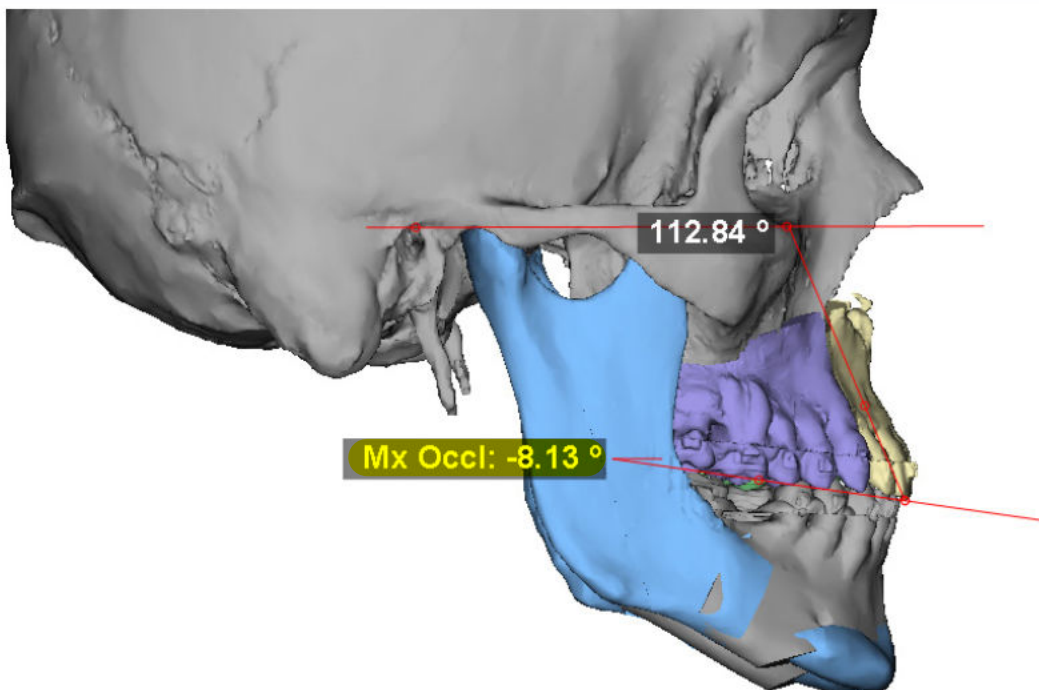


Occlusal Plane Angle Analysis

Preoperative Position



Postoperative Position



Soft Tissue Analysis

Preoperative Position



Postoperative Position



Soft tissue simulation is for reference only and may not reflect what will be seen after the time of surgery.

Occlusal Overlap Color Map

