



# MVH Grand Rounds – Evolution of Head and Neck Reconstruction: Advances in Oromandibular Reconstruction August 1, 2024



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# TEXT ATTENDANCE

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Any questions please contact India Myers ([ilmyers@premierhealth.com](mailto:ilmyers@premierhealth.com)) or  
Dana Mackert ([dlmackert@premierhealth.com](mailto:dlmackert@premierhealth.com))

**EVALUATION WILL CLOSE ON 8/5 and move to the library section on  
CloudCME**

Miami Valley Hospital Medical Staff Grand Rounds

*Presents*

# "Contemporary Management of Rib and Sternal Fractures"

Presented by Gregory Semon, DO, FACS with Wright State Physicians

Thursday, September 5, 2024

12:00 – 1:00 PM

CME Credit Available

*Register today!*



# The Evolution of Head & Neck Oncology: Advances in Oromandibular Reconstruction

Sameep P. Kadakia, MD FACS

*Advanced Head & Neck Surgical Oncology  
Facial Plastic & Microvascular Reconstruction*

*Associate Professor | Attending Surgeon*  
Dept. of Plastic and Reconstructive Surgery  
Dept. of Surgery

Boonshoft School of Medicine at Wright State University

# Objectives

- Better understand the evolution of head and neck reconstruction
- Appreciate the challenges of oromandibular reconstruction
- Gain insight into the technologic advances with computer assisted planning

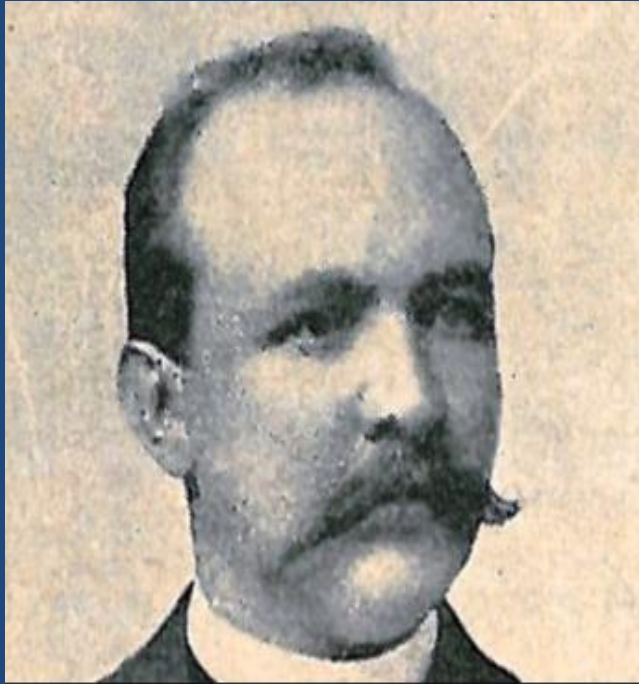
# Photo Disclaimer

All photos presented with the exception of a few are from my own surgical cases. They have been obtained with patient consent for use in educational presentations. Please refrain from copying, videotaping, photographing, or reproducing these images

Thank you

# Head and Neck Cancer 2024

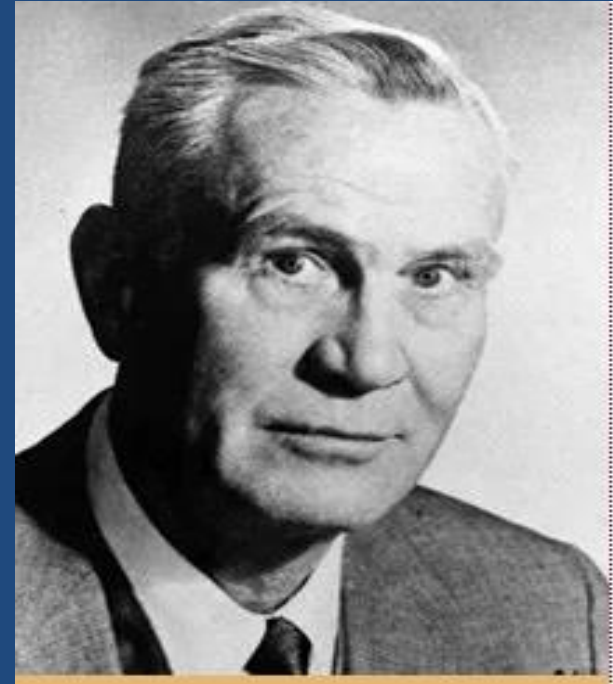
- Changes in trends of Surgery v Chemo-RT
- Long Term Effects of Chemo-RT?
- Radiation Osteonecrosis
- Unpredictable Results
- Surgical Advances
- Rehabilitation Improvement



Jawdyski



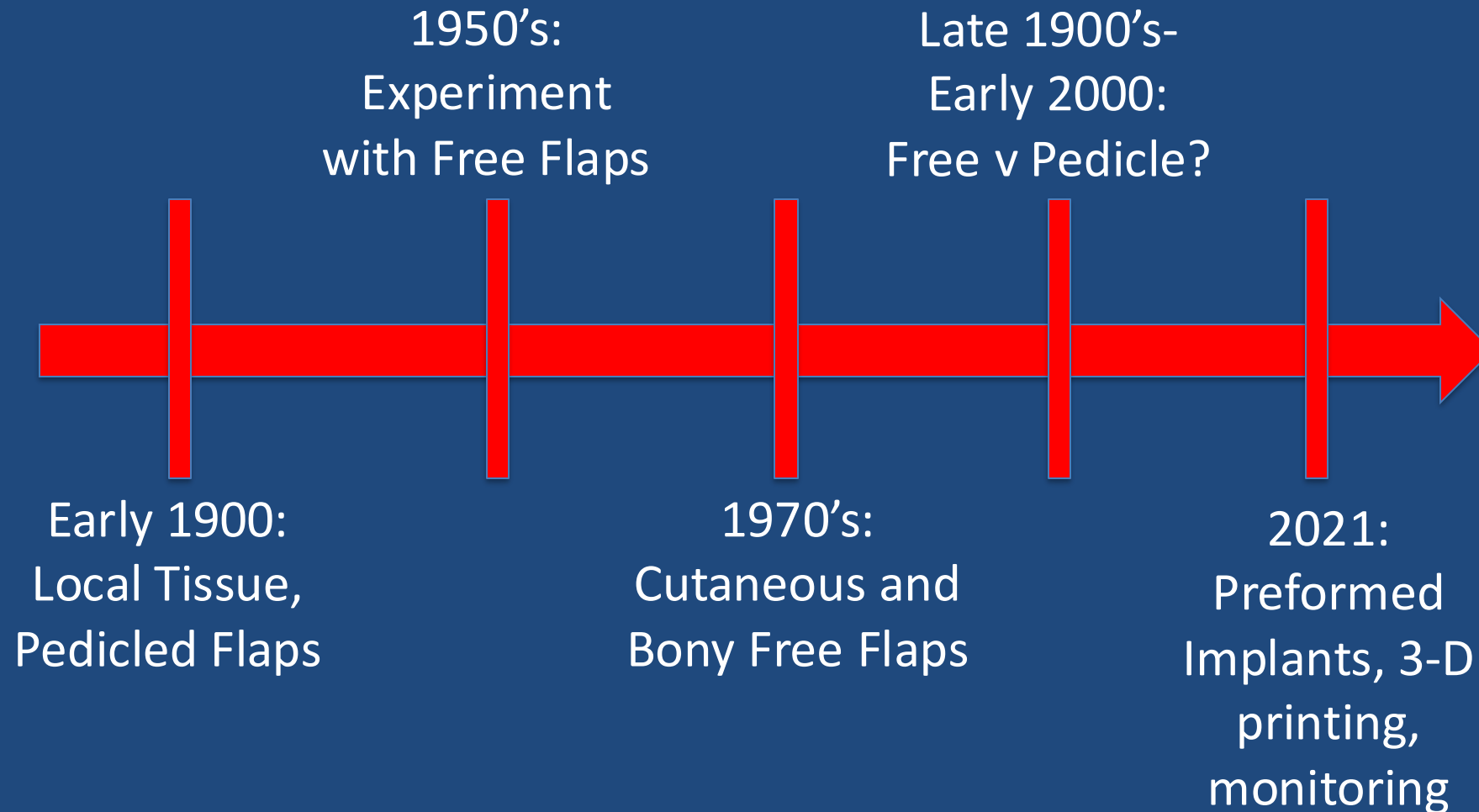
Crile



Hayes-Martin



# Evolution of Head and Neck Recon



# Evolution of Head and Neck Recon



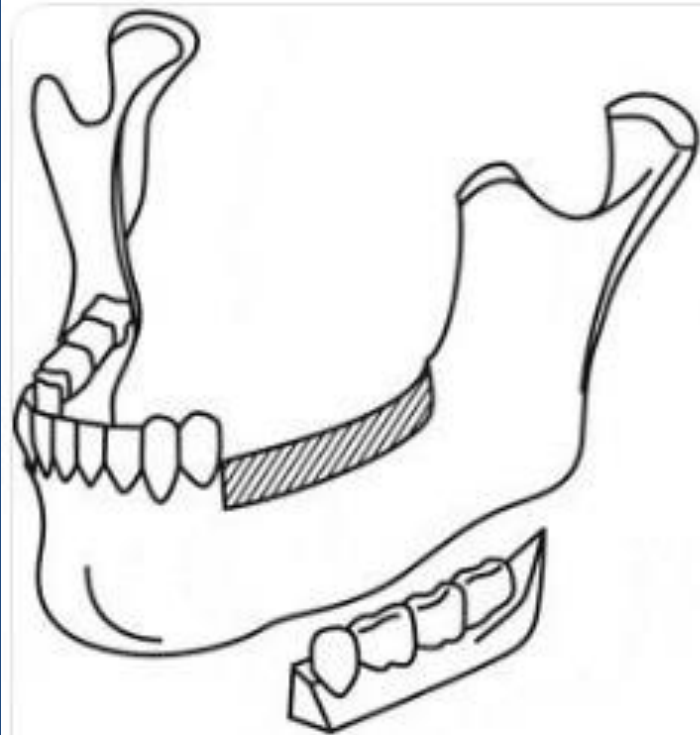
Image:  
*Diabetic renal  
transplant  
patient with  
facial mucor  
infection s/p  
debridement*



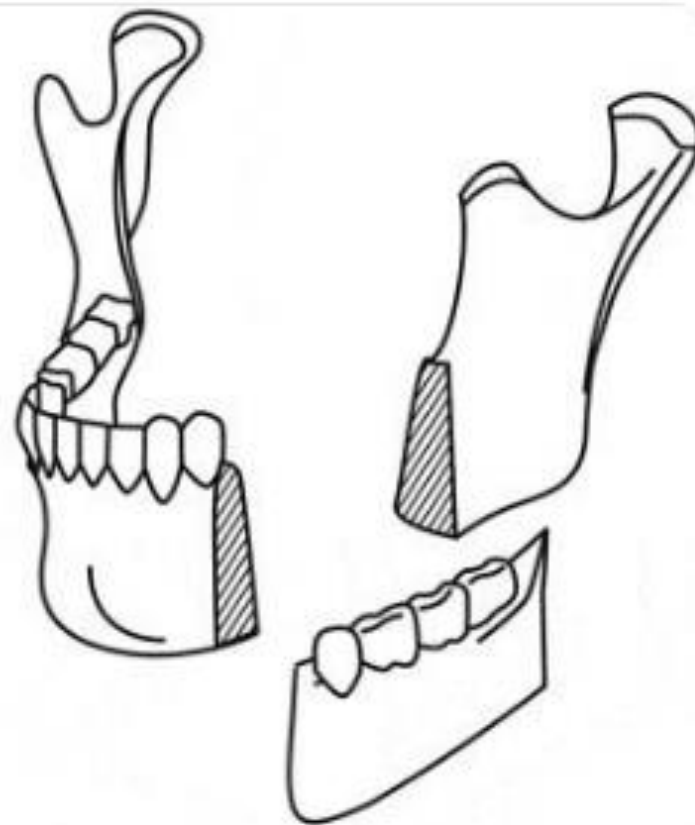








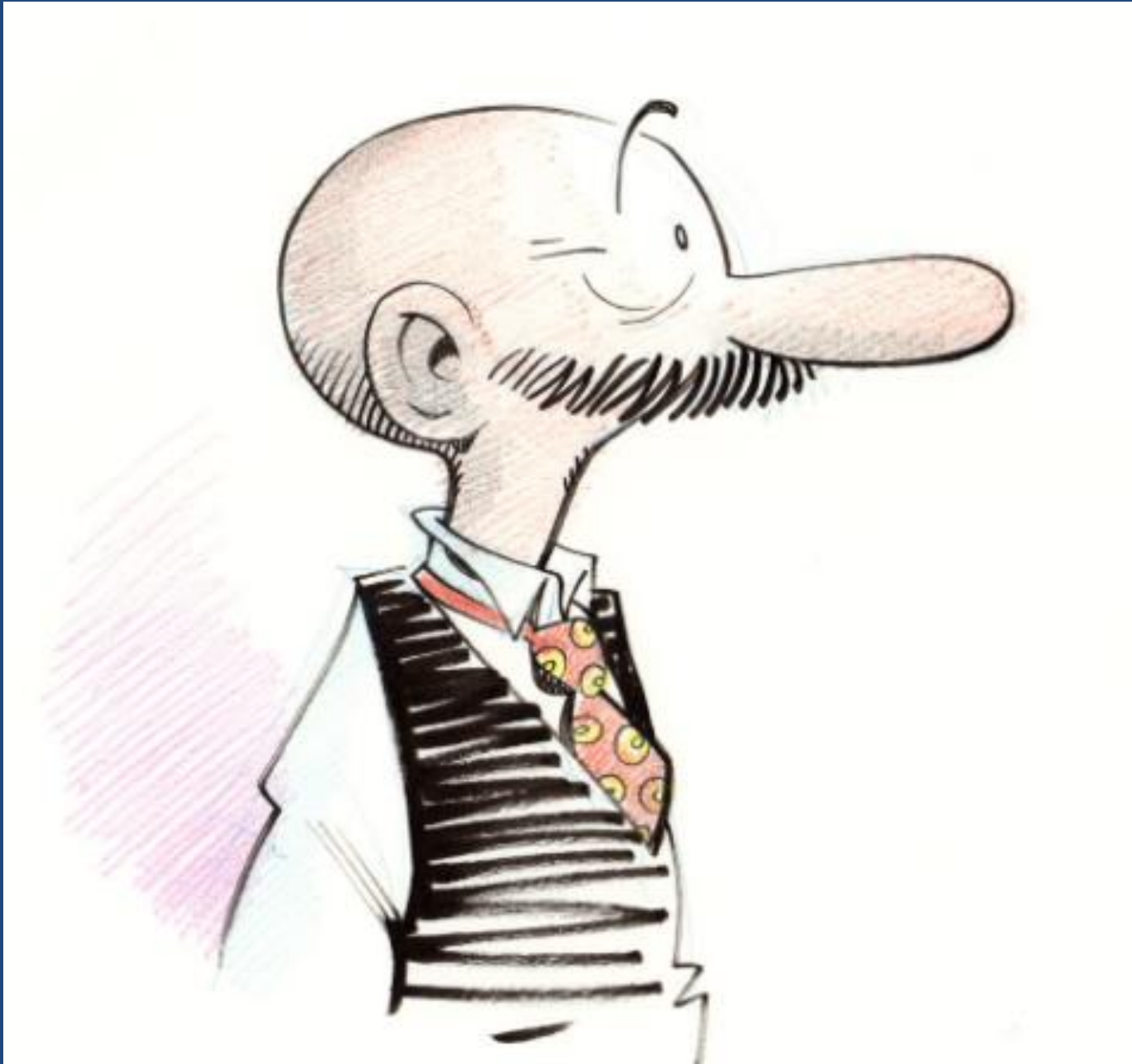
Marginal mandibulectomy



Segmental mandibulectomy





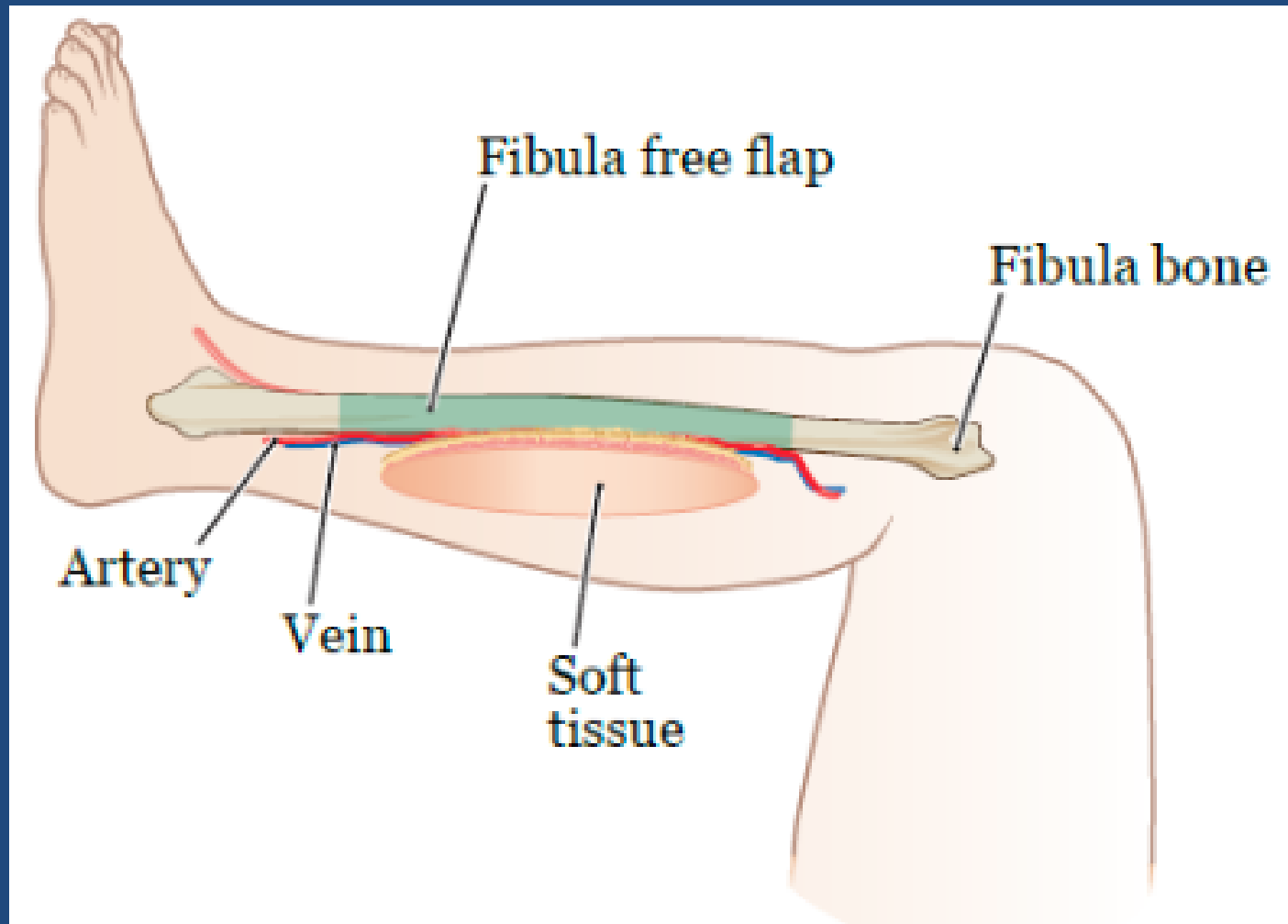


Microvascular Free Tissue  
Transfer

+

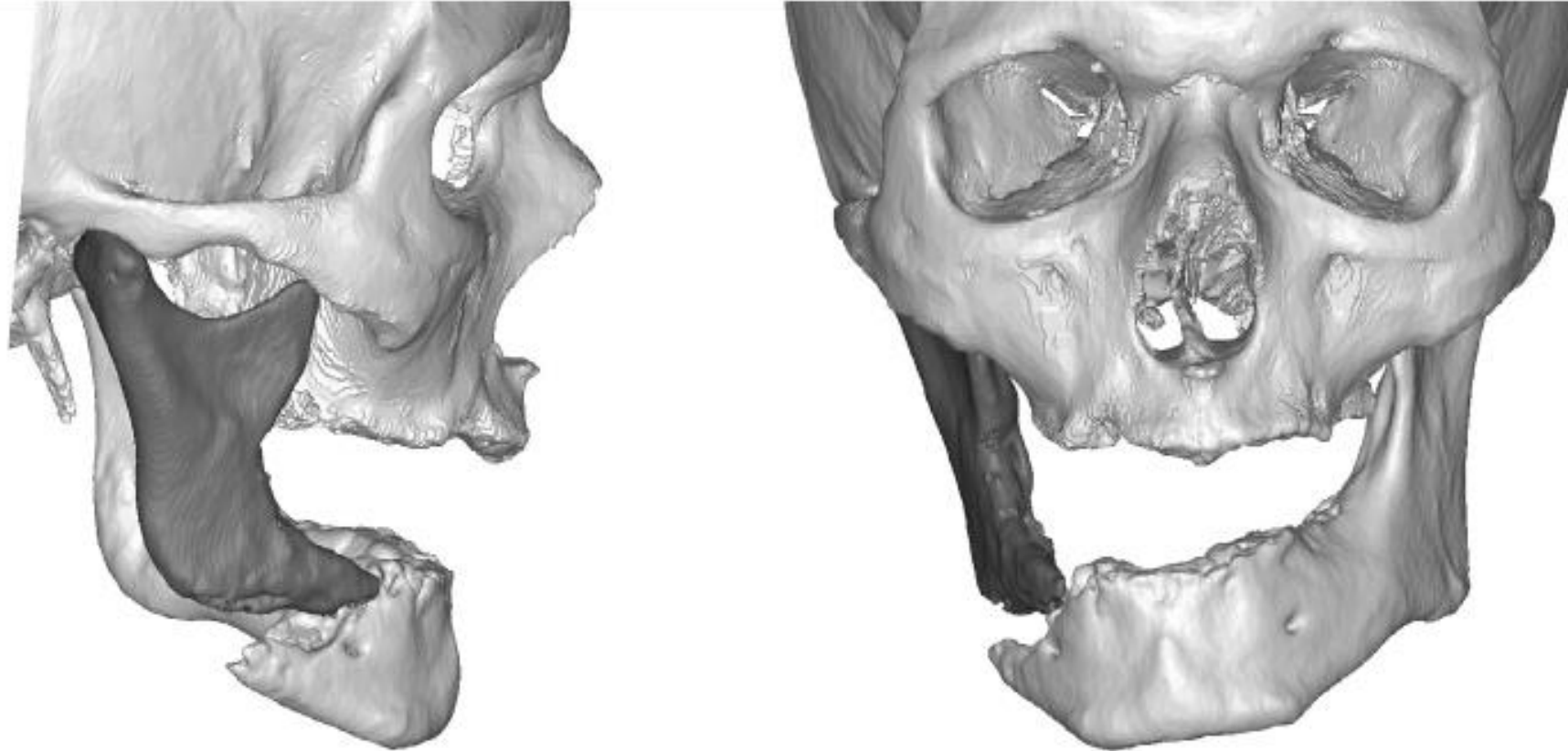
3-D Custom Plating

# Fibula Free Flap

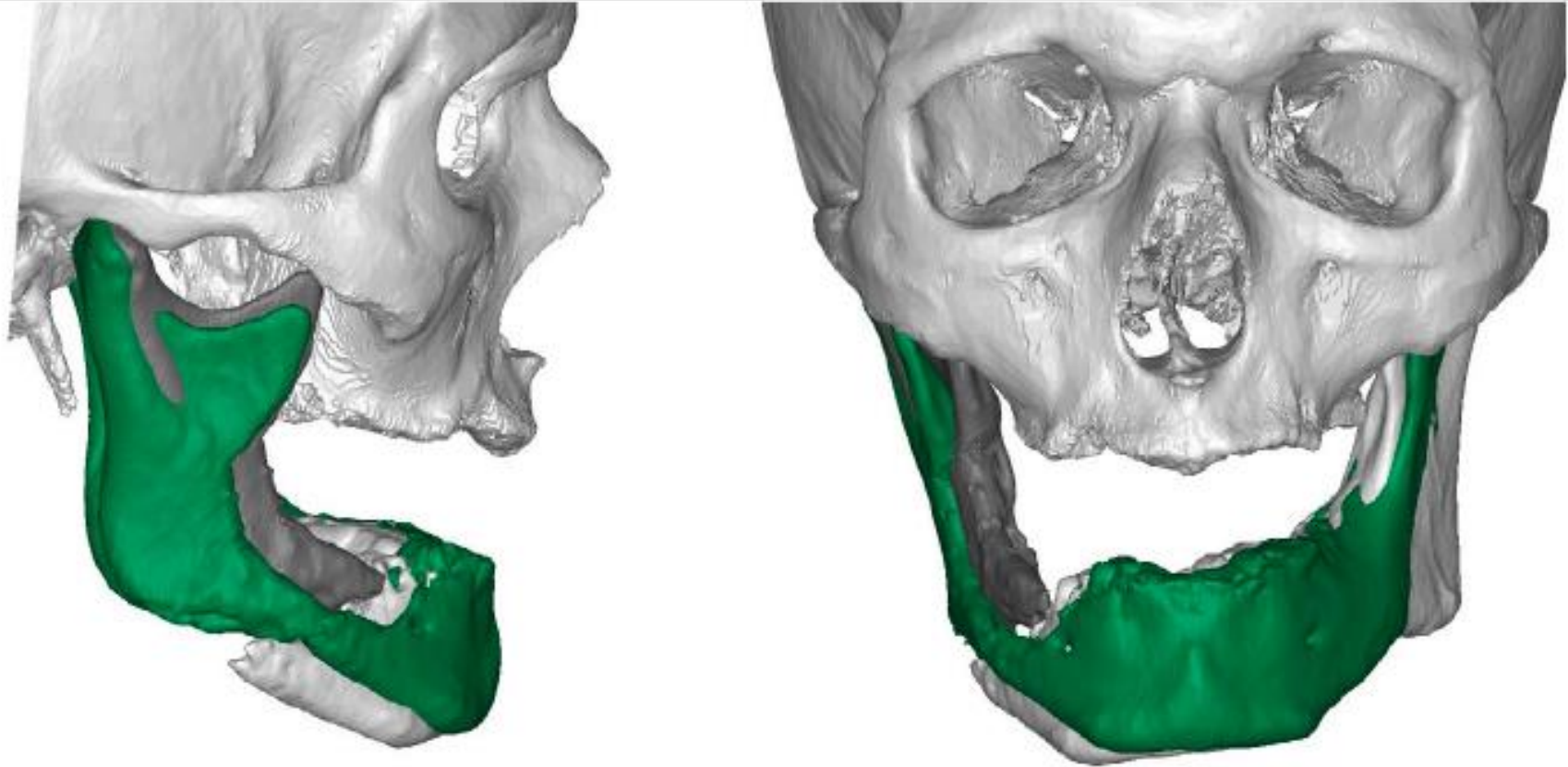




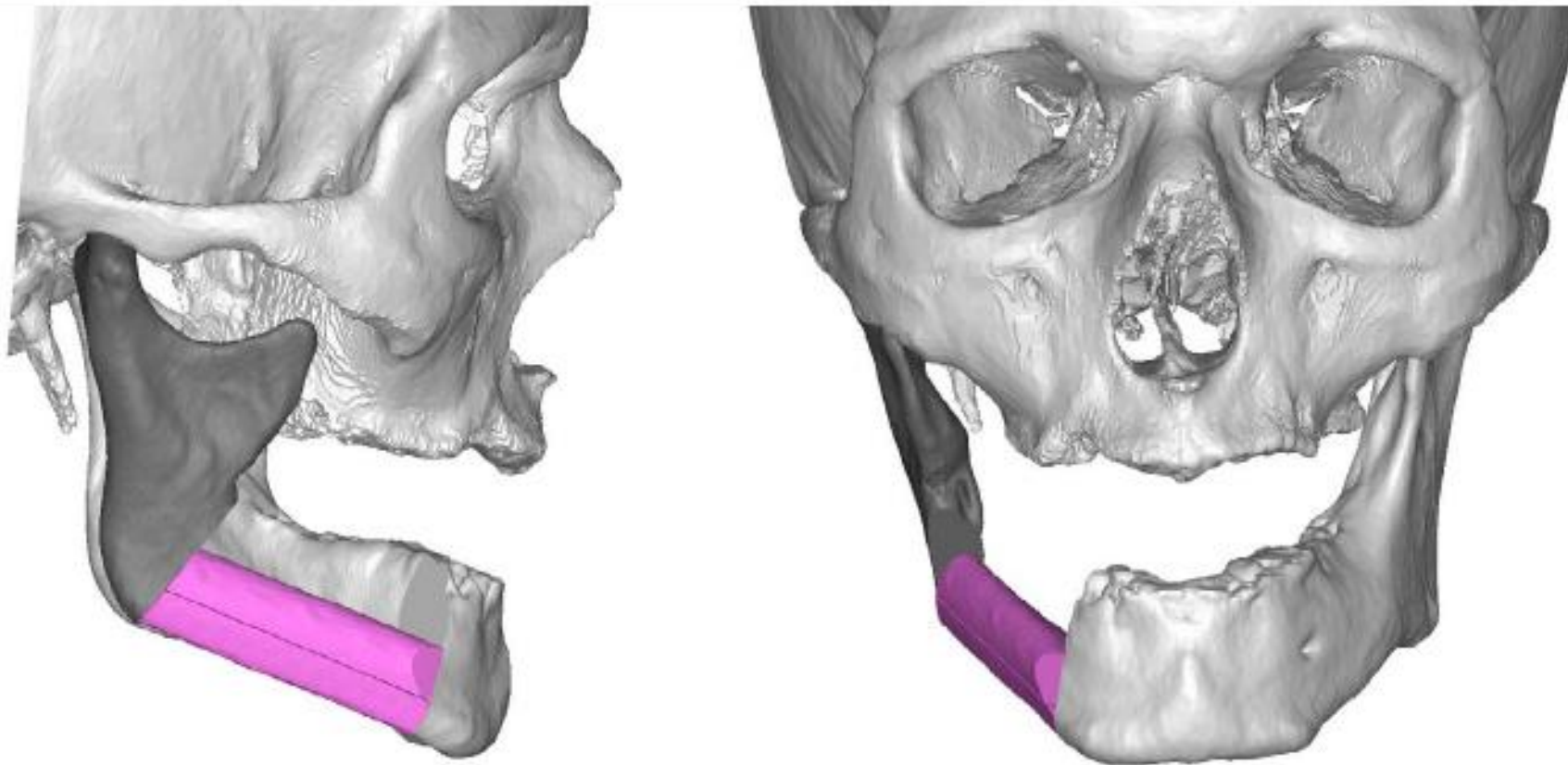
## Preoperative Anatomy

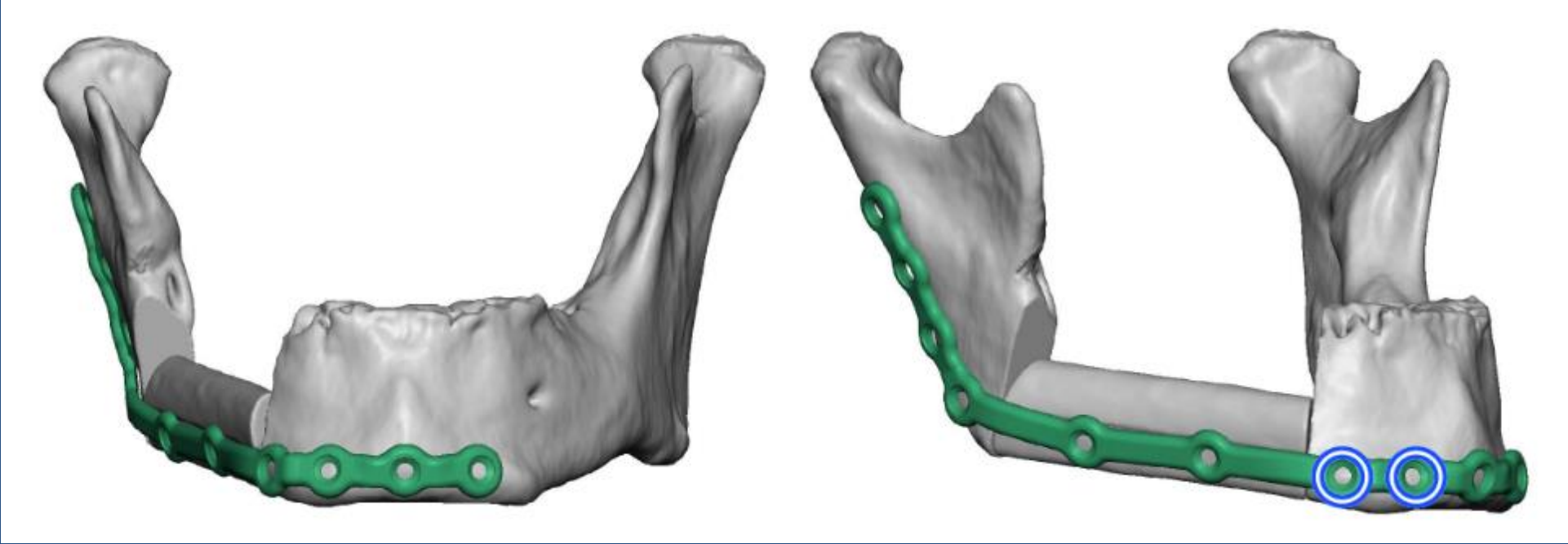


## Repositioned Anatomy (Shown in Green)

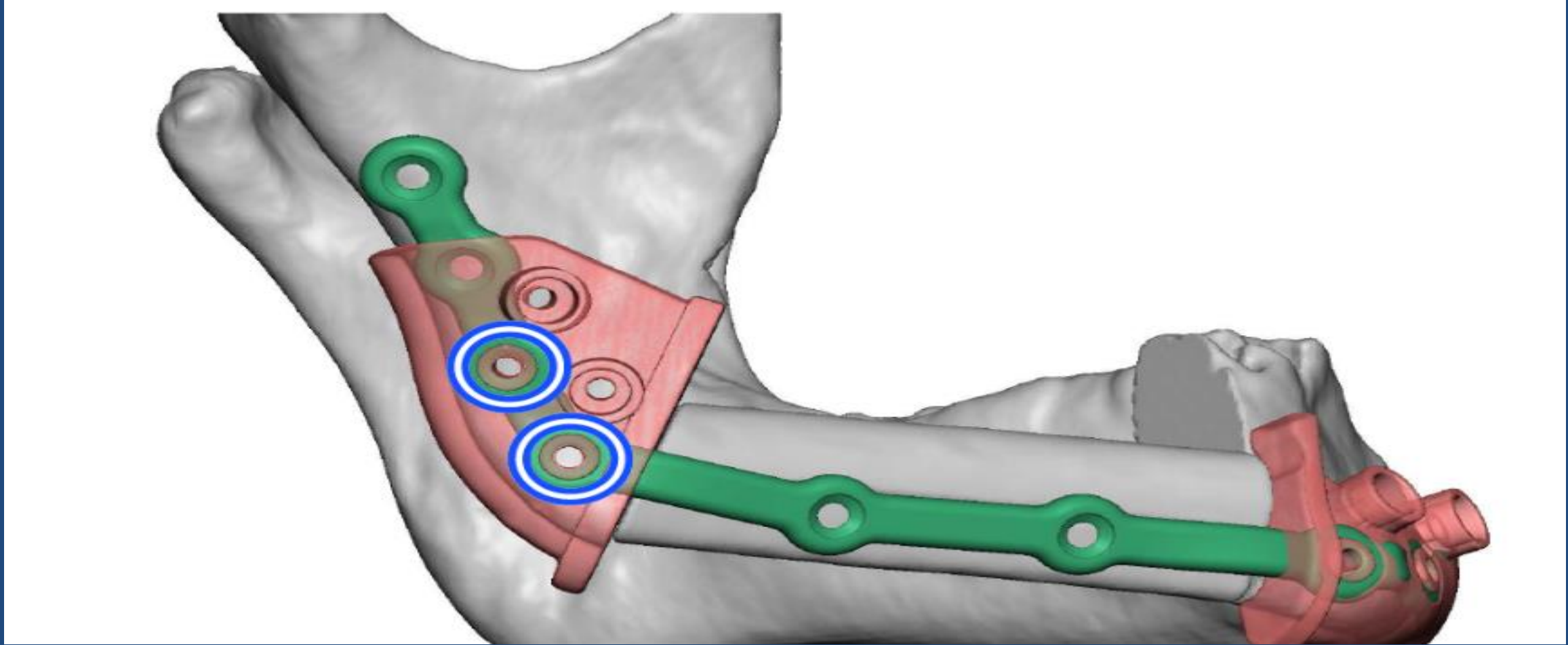


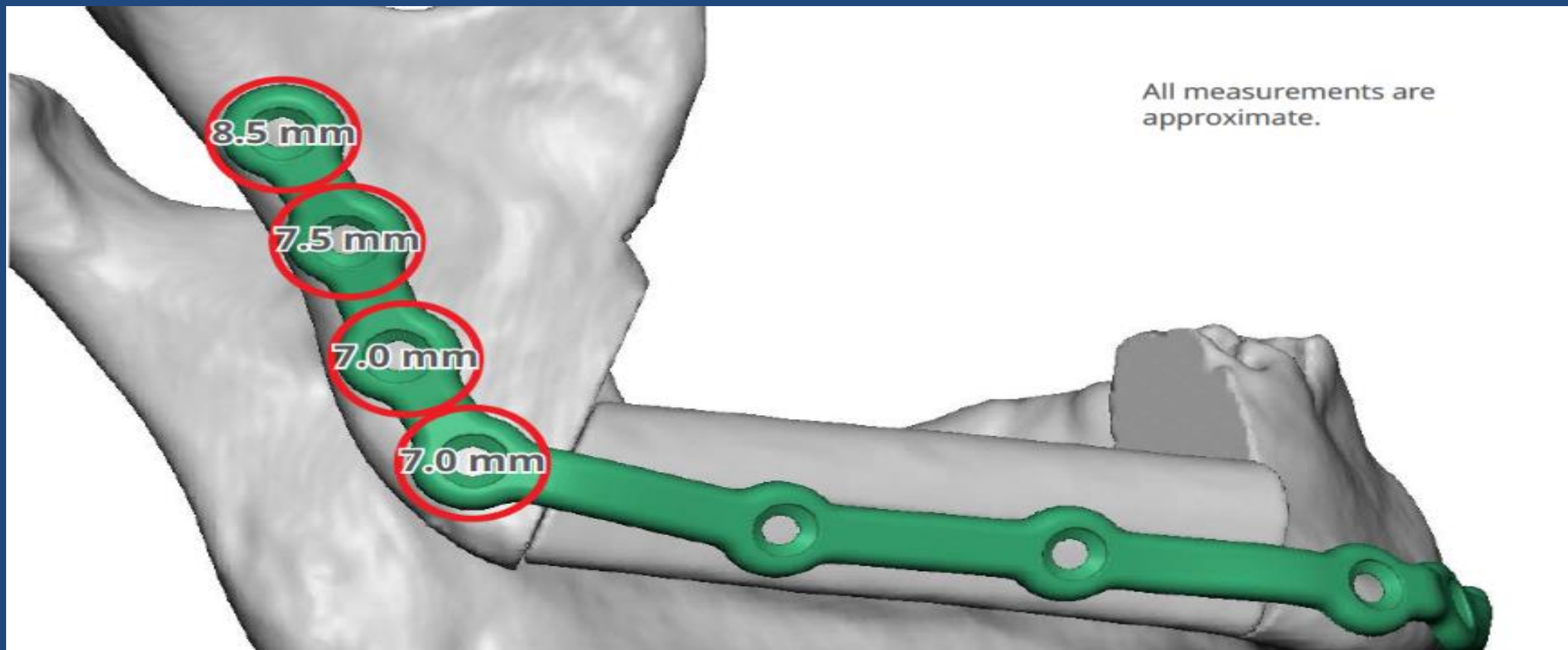
## Simulated Postoperative Anatomy











All measurements are approximate.

8.5 mm

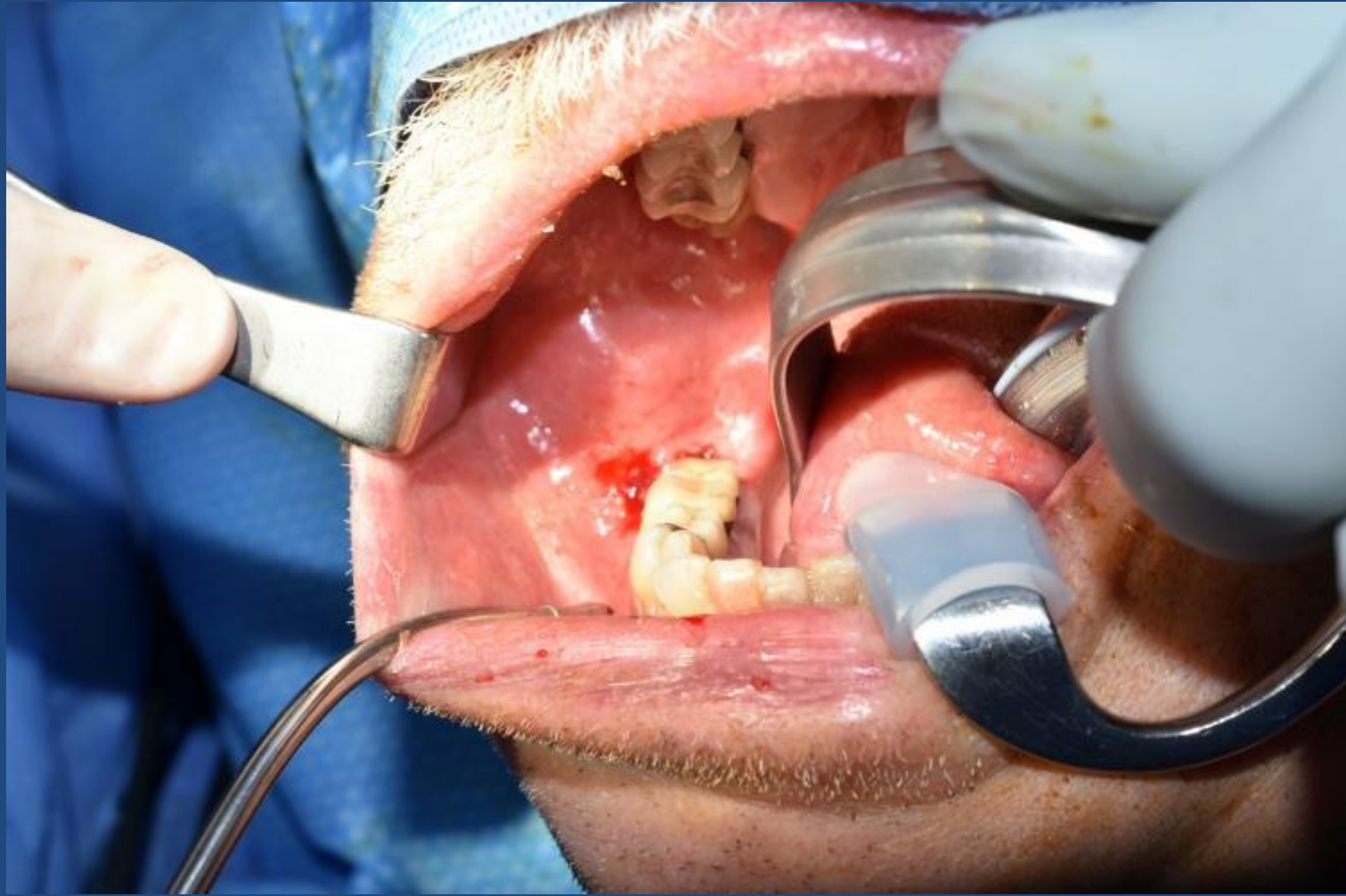
7.5 mm

7.0 mm

7.0 mm

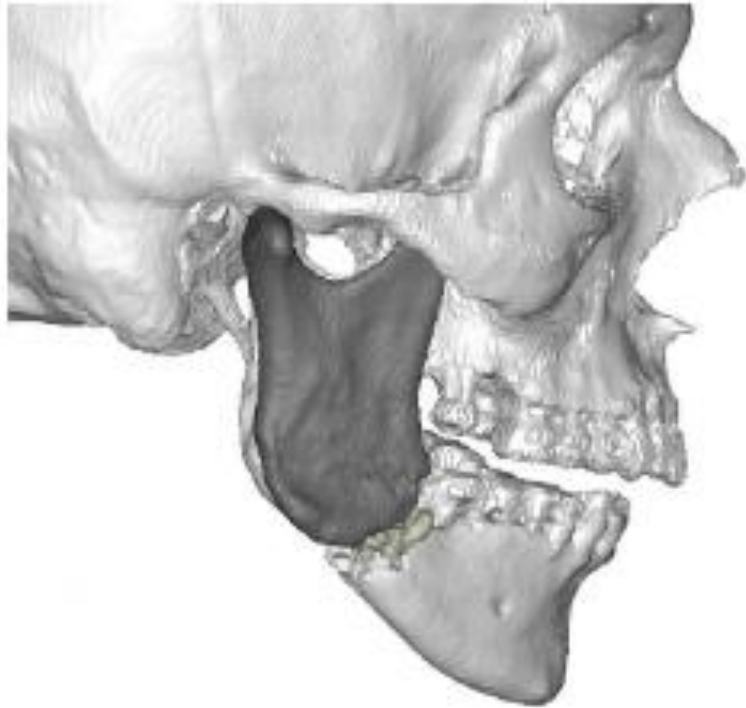
# Patient Case

History of oropharyngeal squamous cell carcinoma s/p chemo radiation now with pathologic mandible fracture secondary to osteoradionecrosis

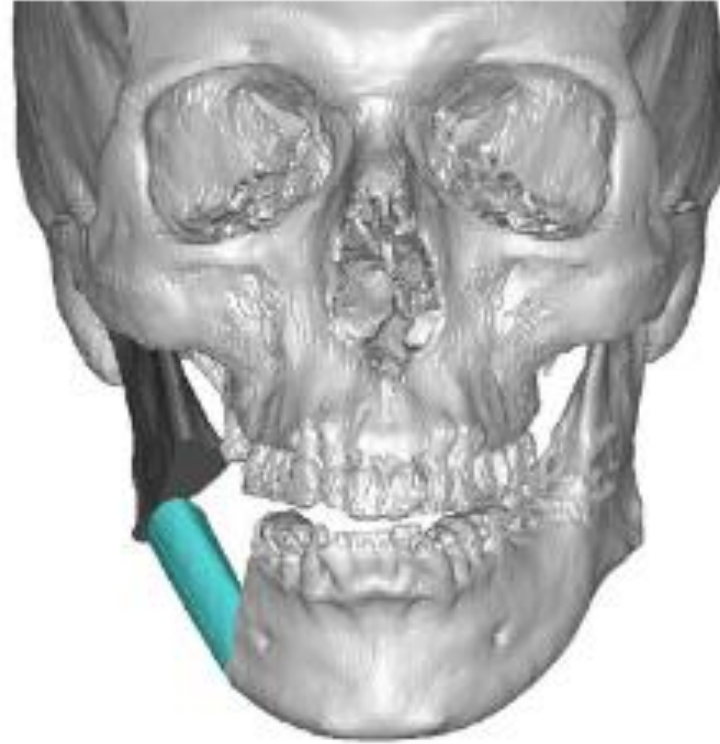
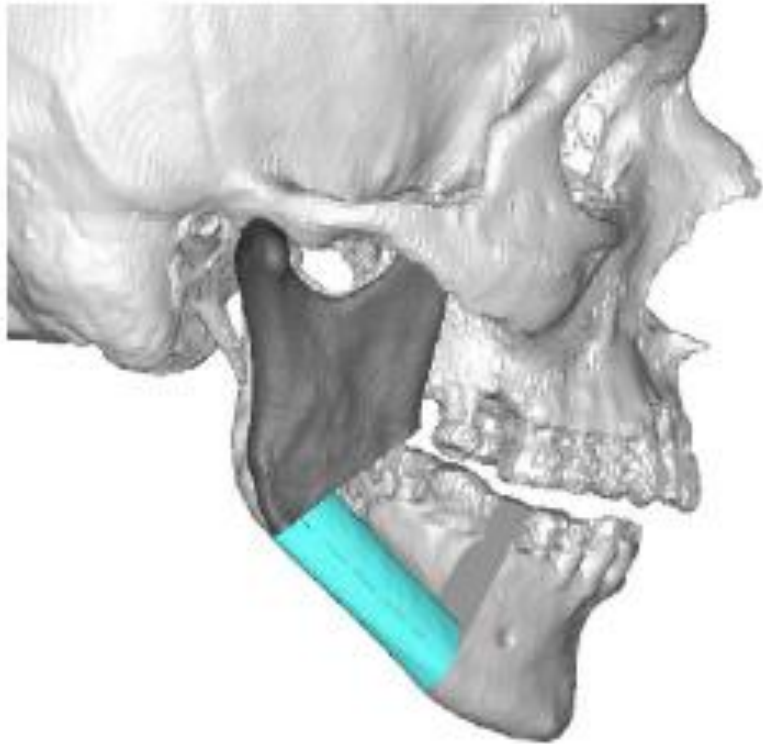


## Preoperative Anatomy

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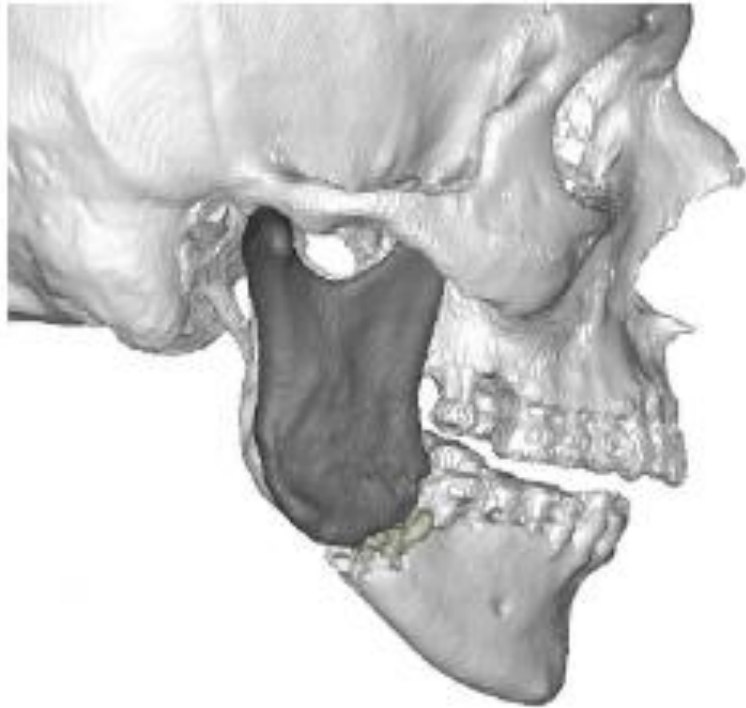


## Simulated Postoperative Anatomy



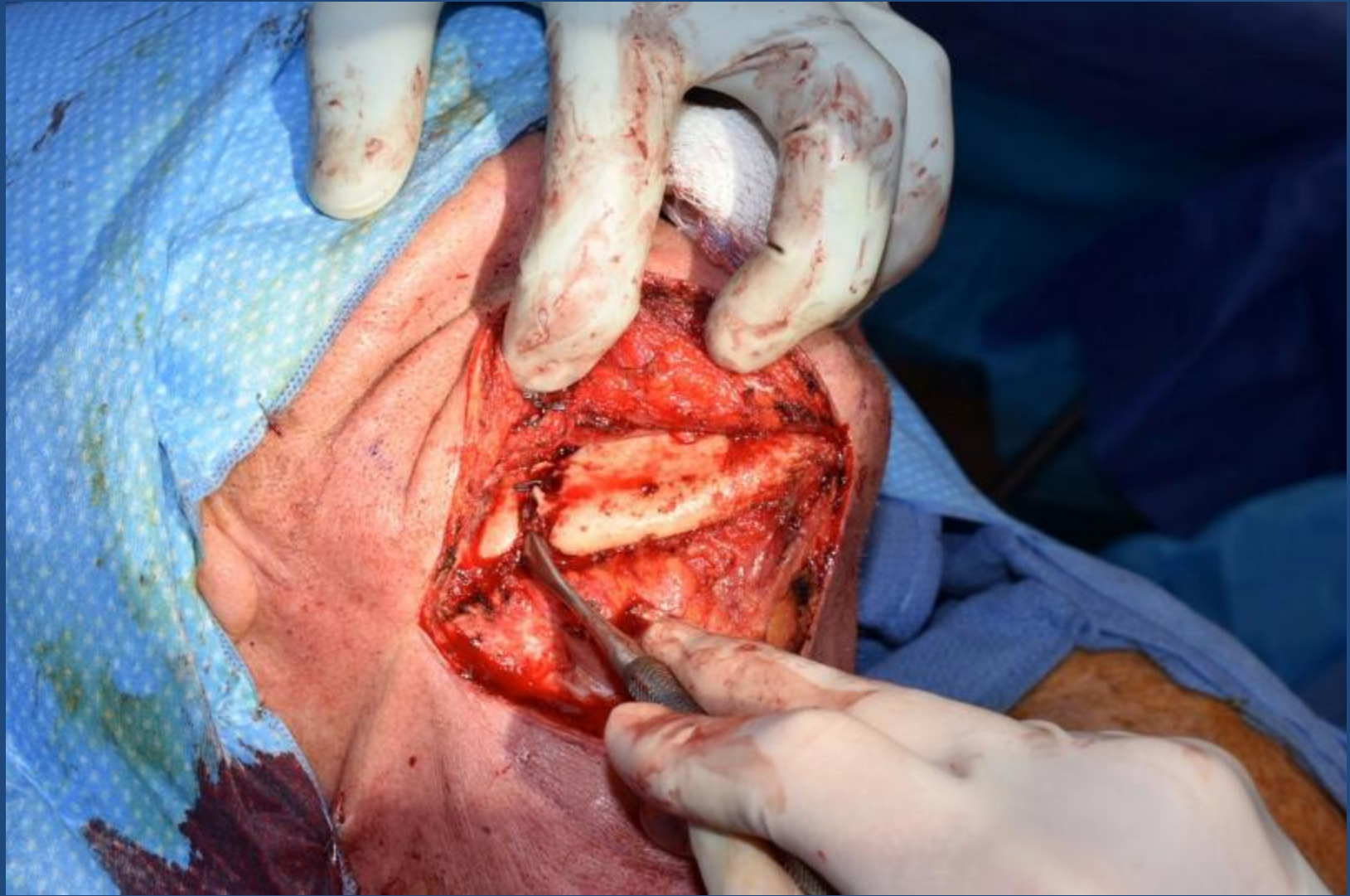
## Preoperative Anatomy

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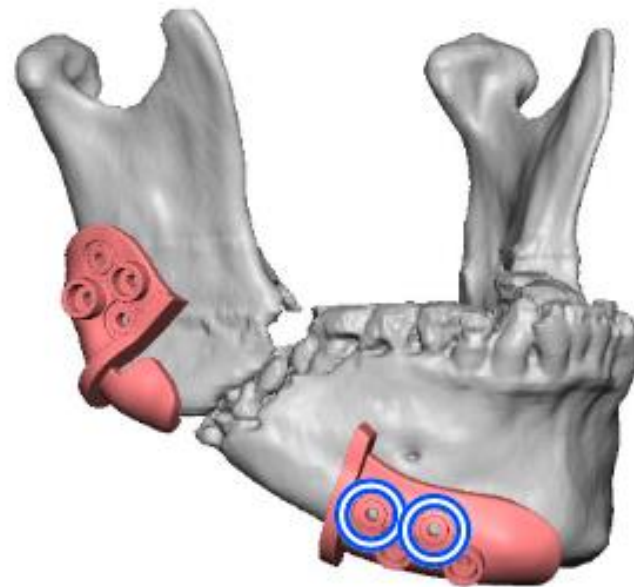
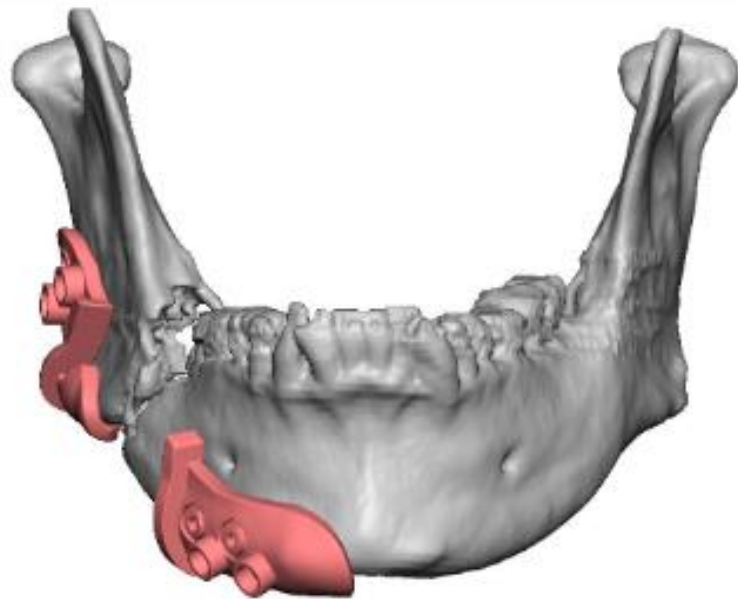


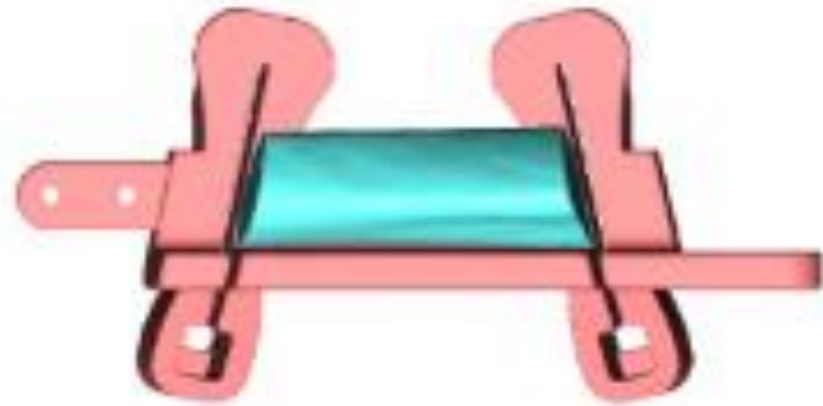
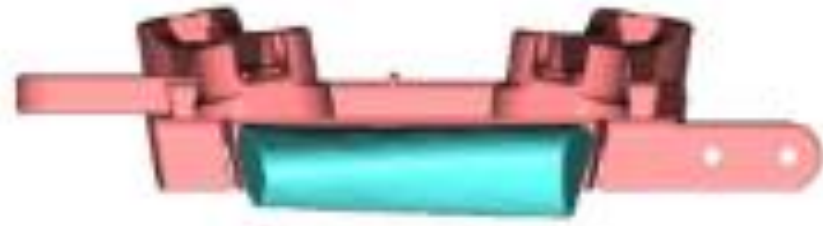


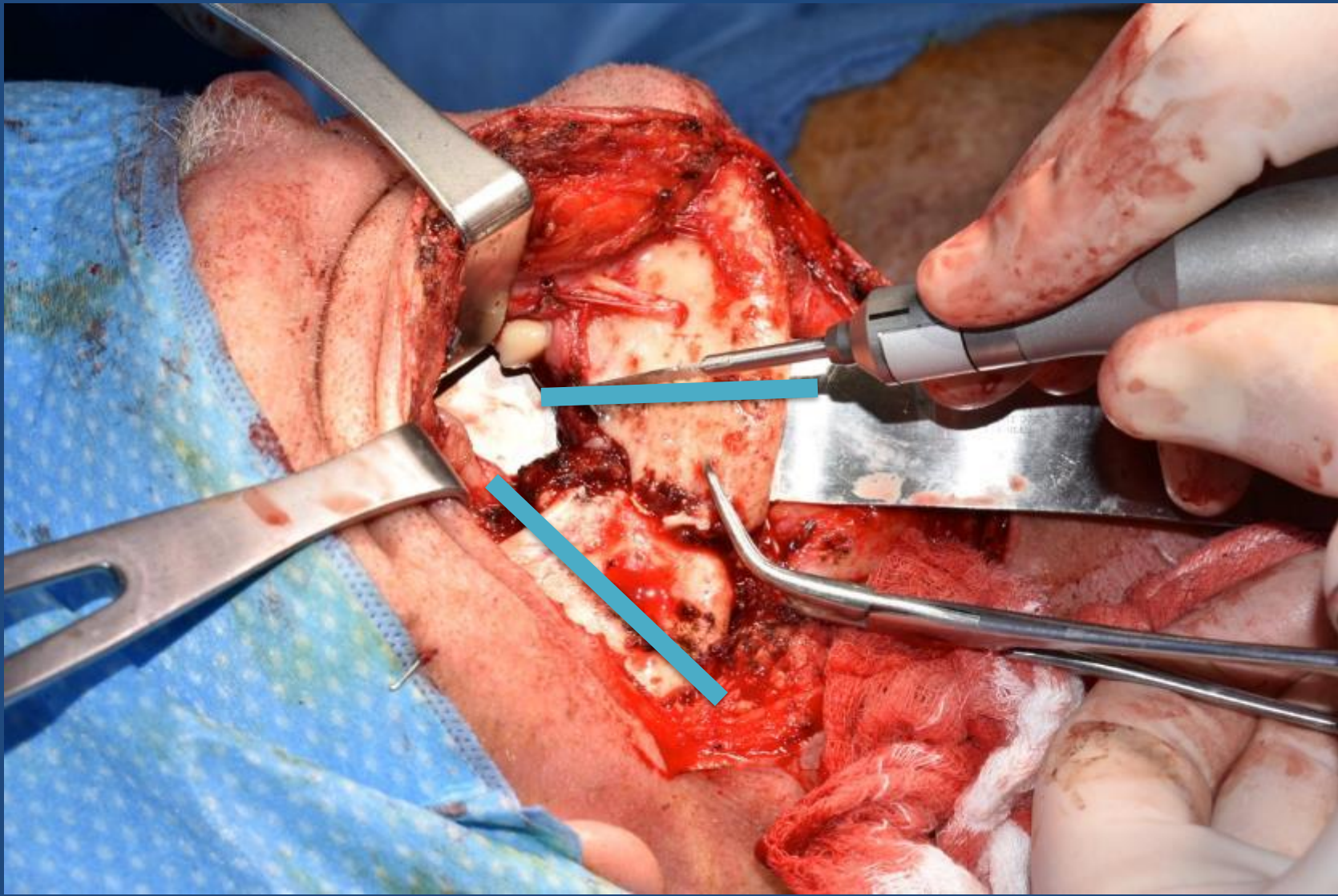


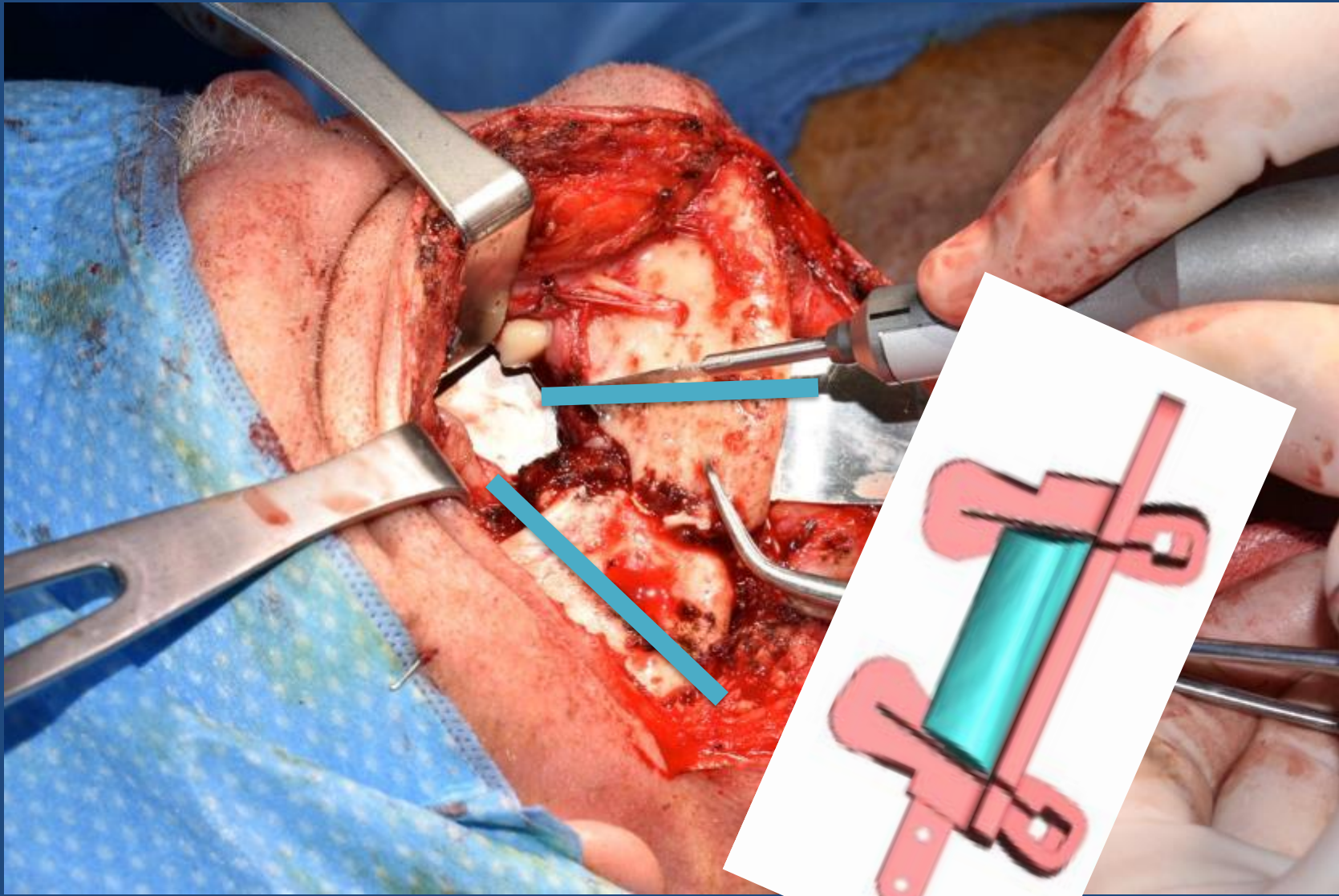


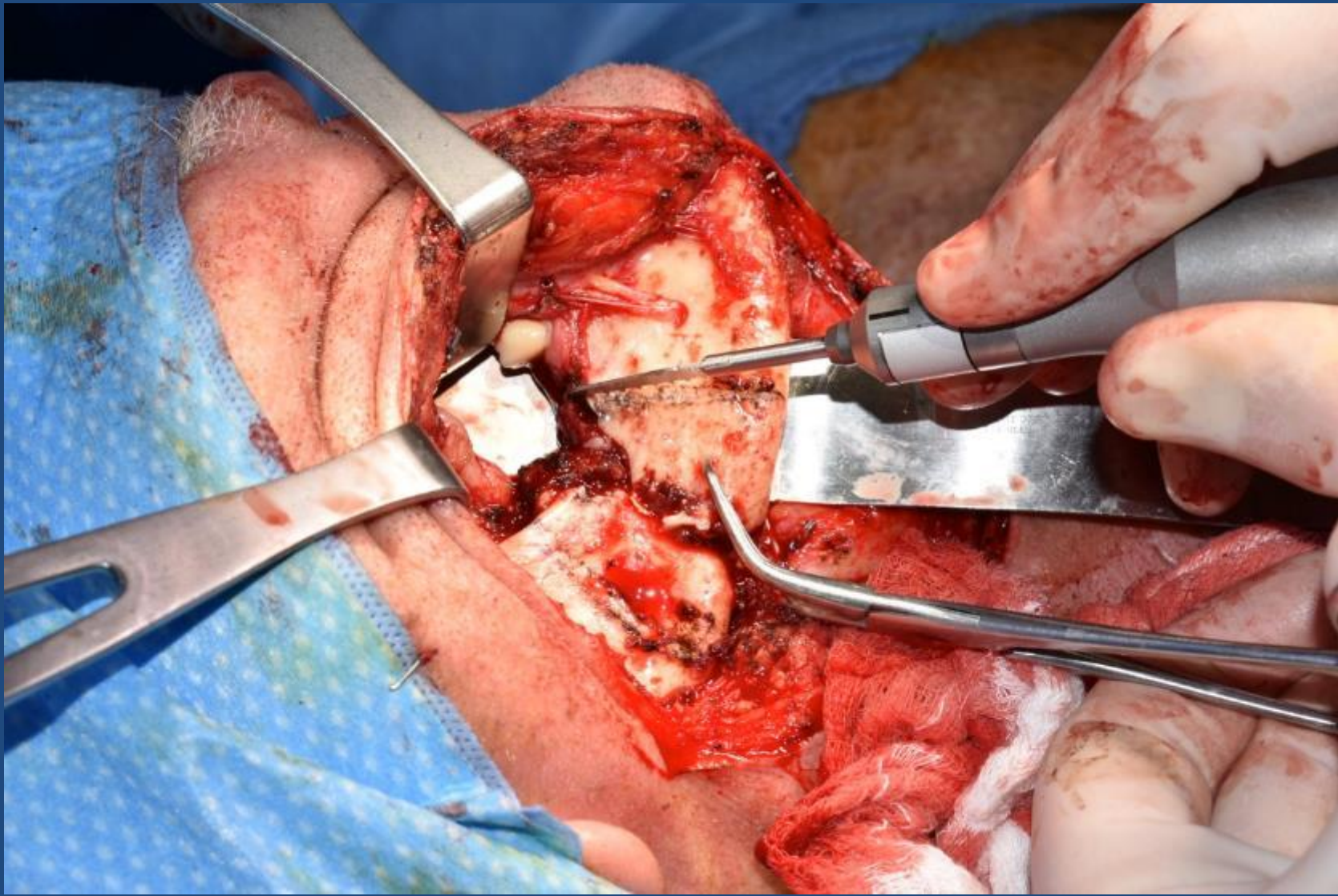
## Mandible Marking Guides

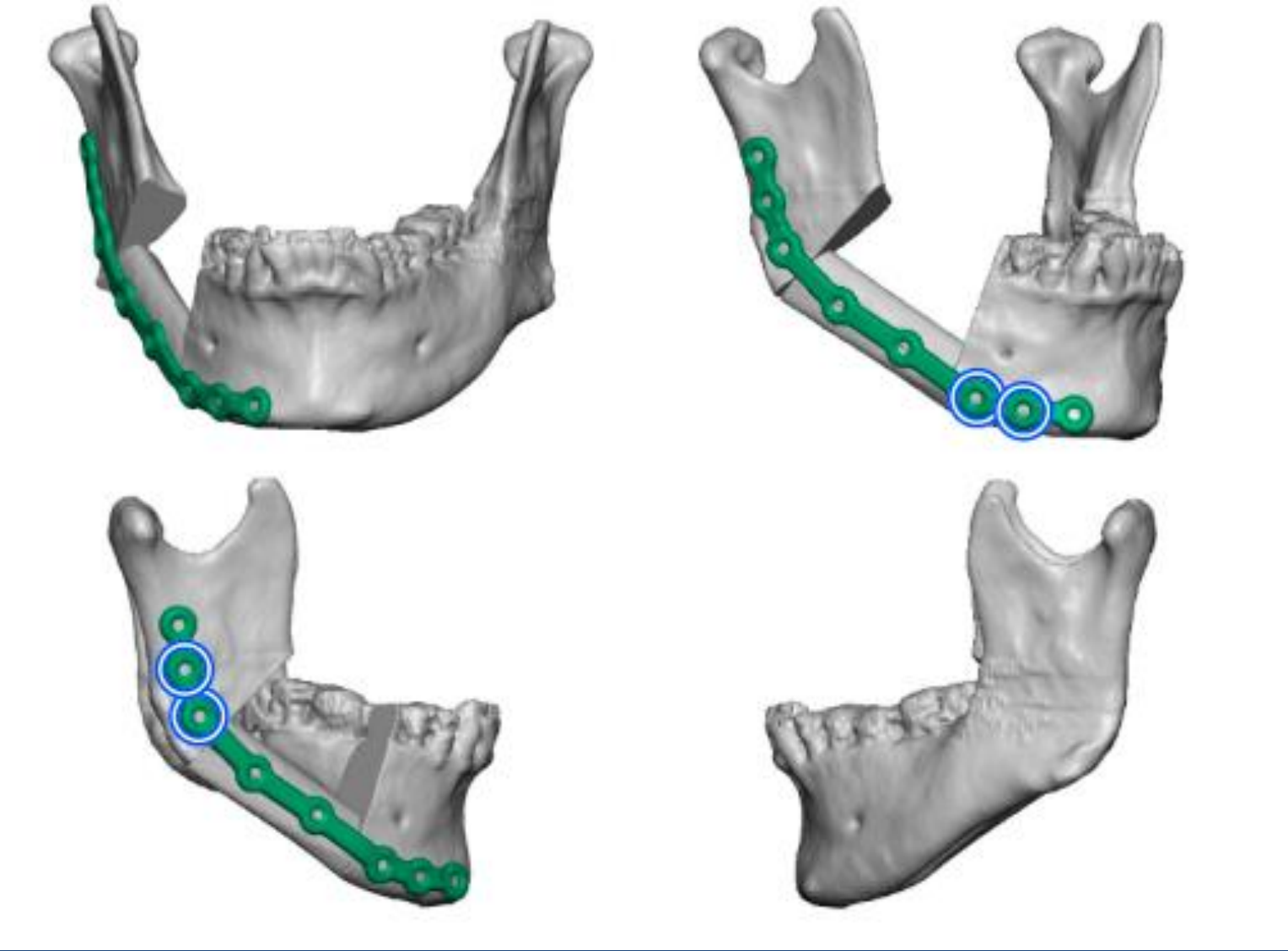


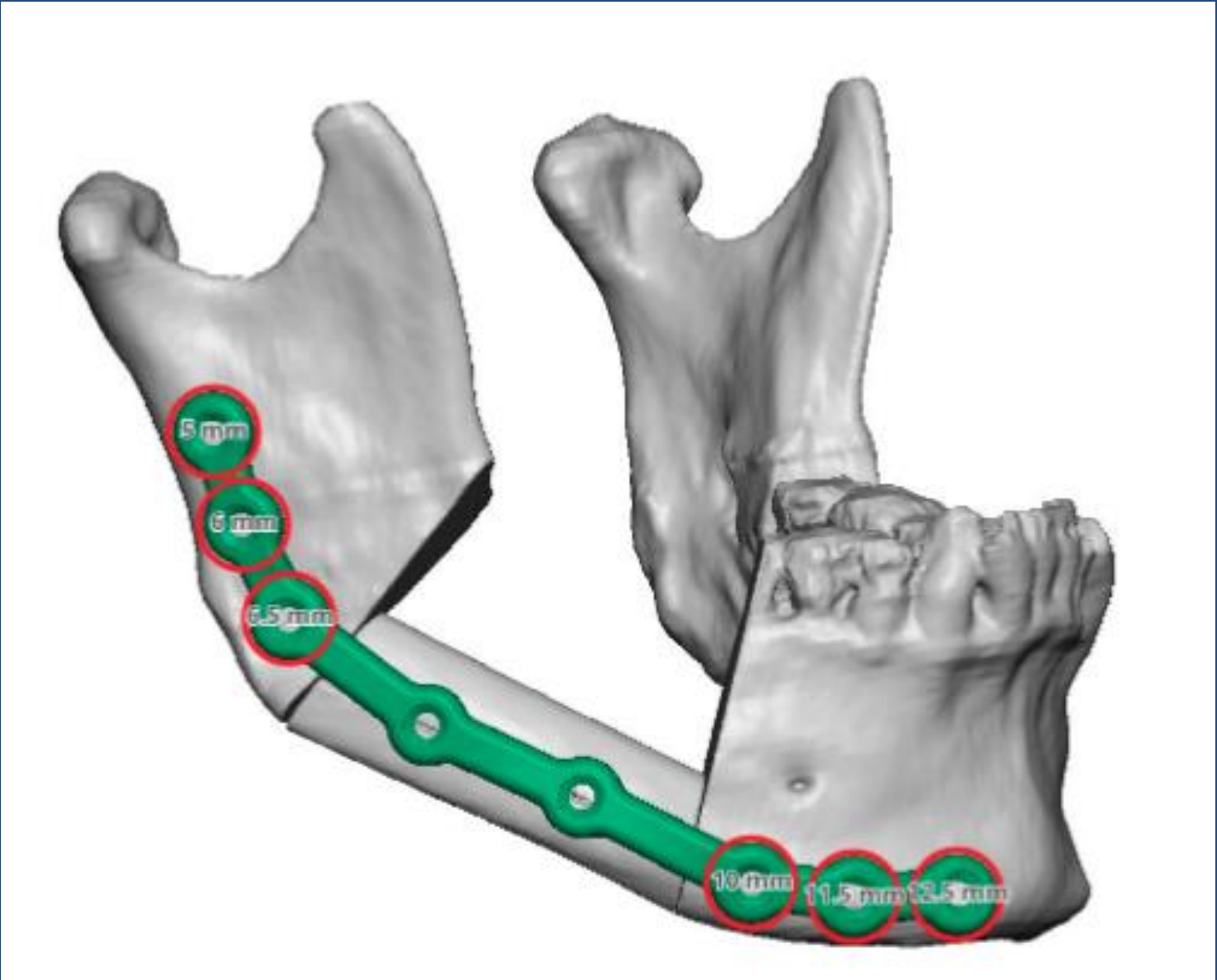




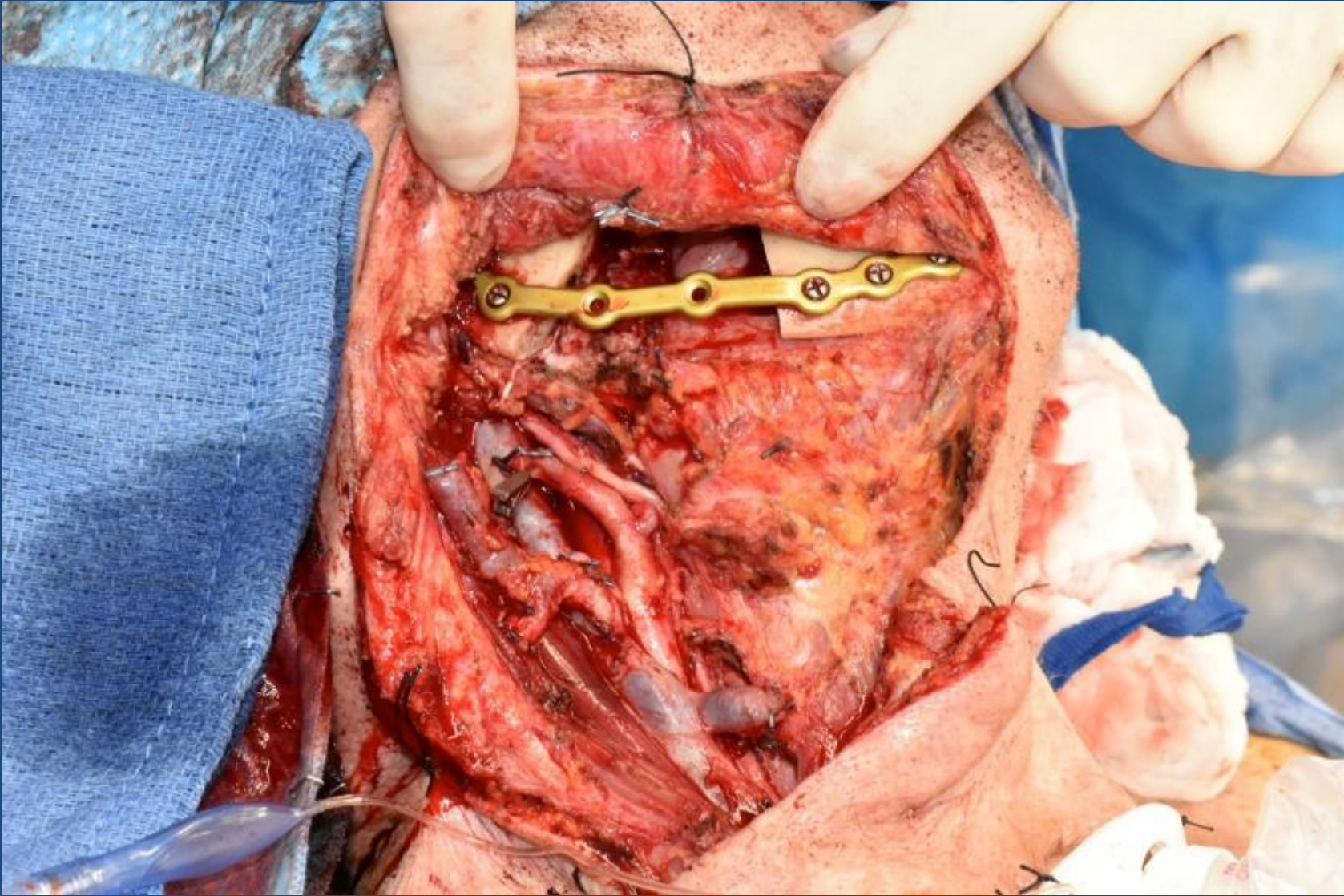


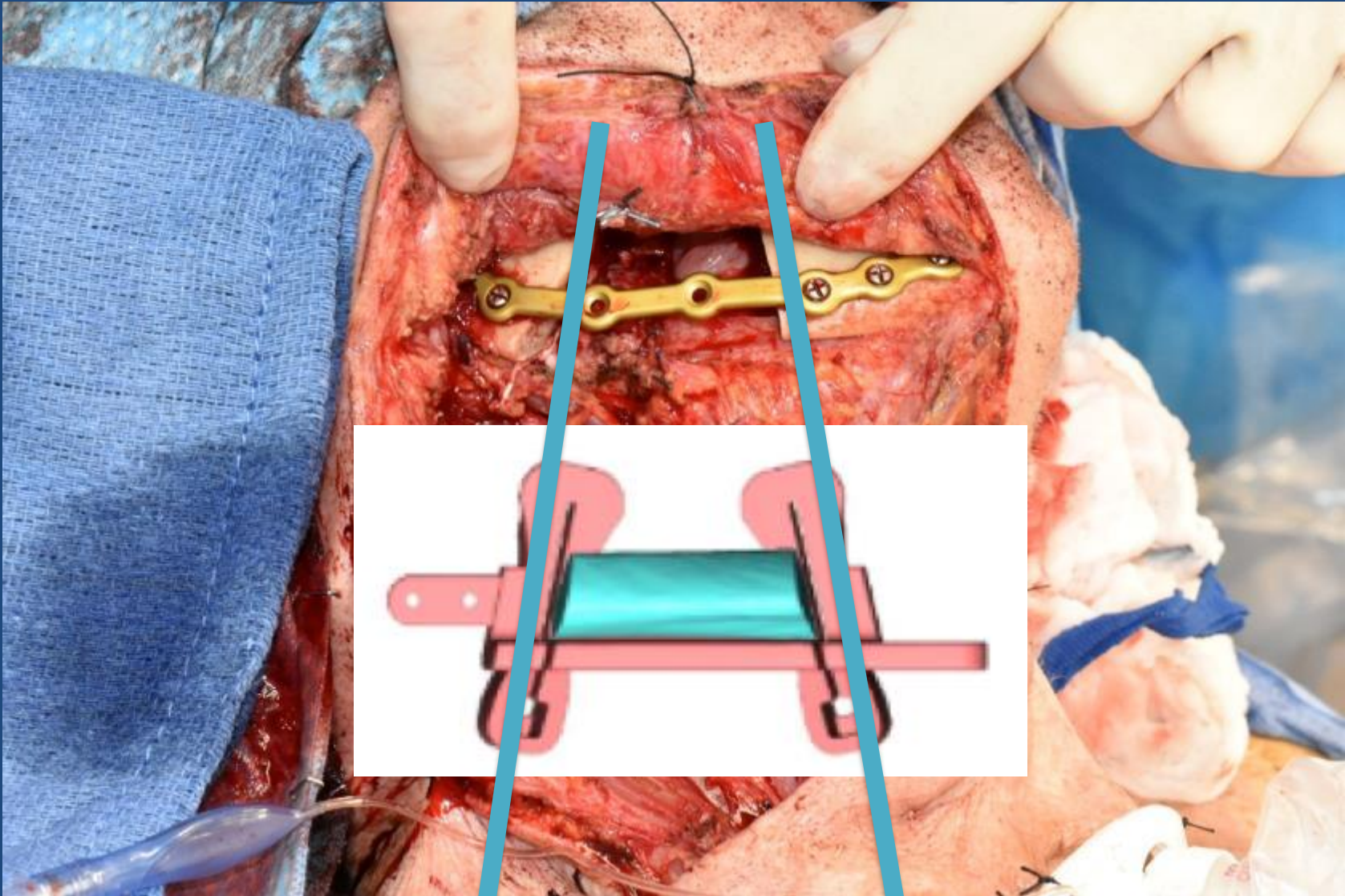


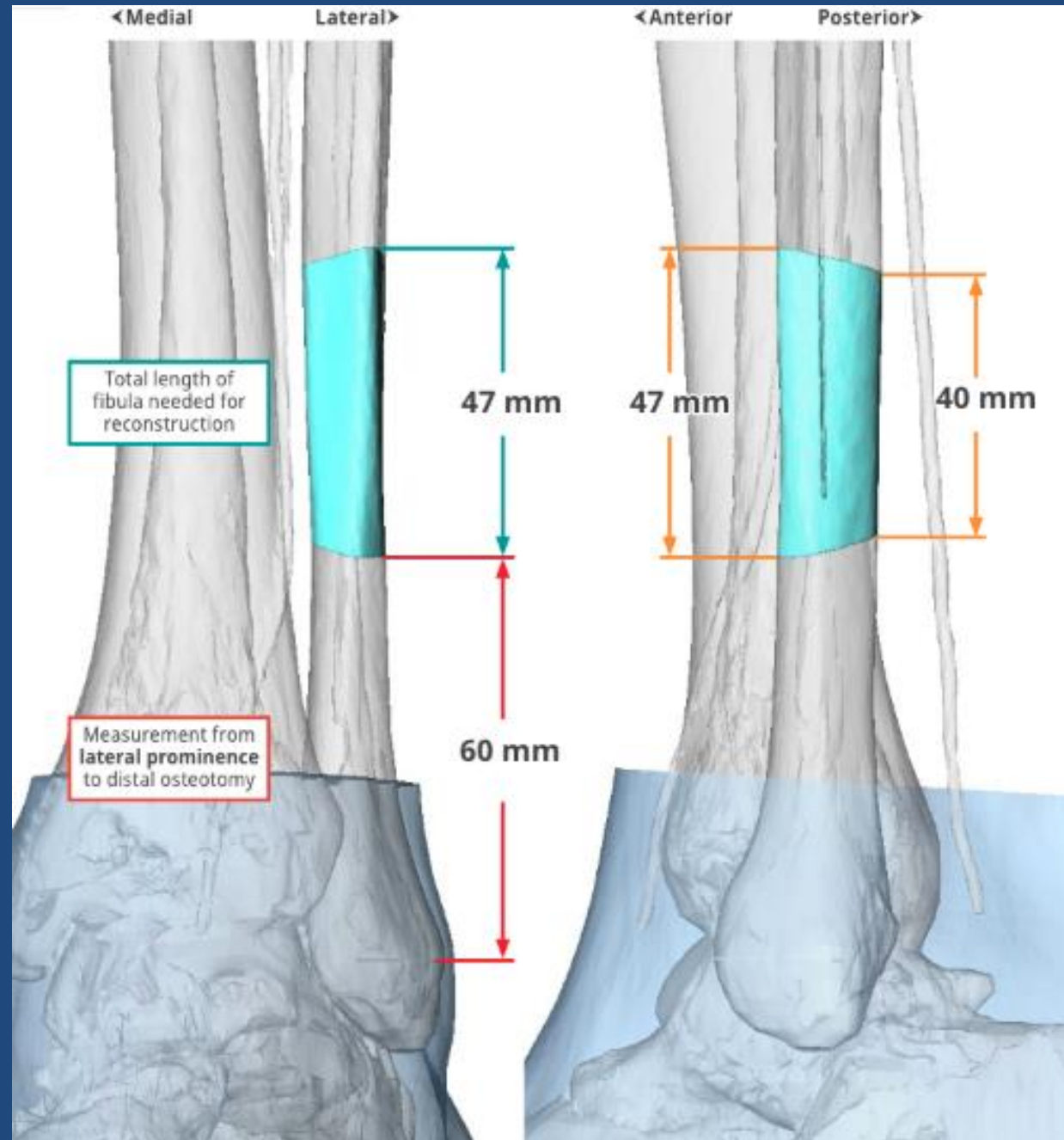
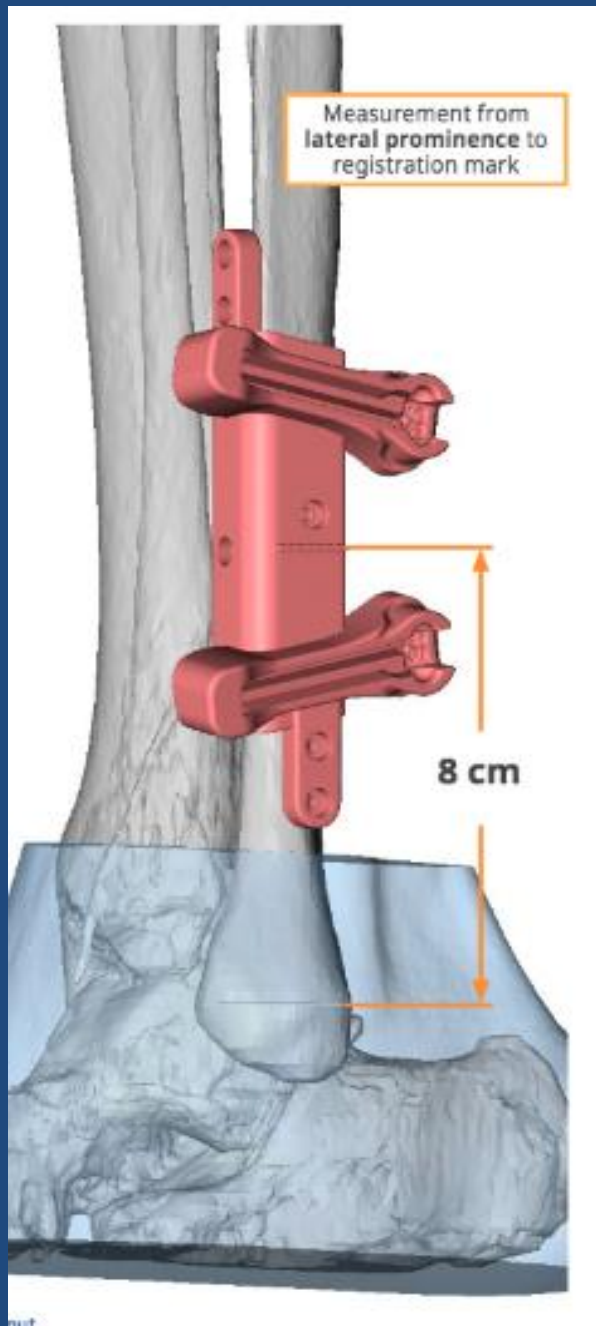






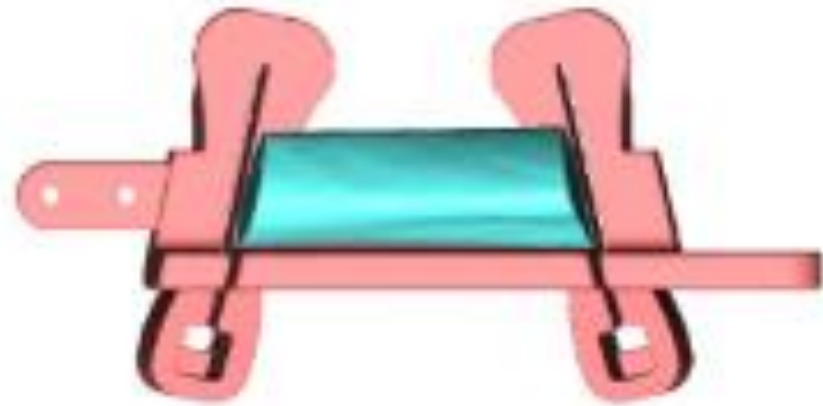
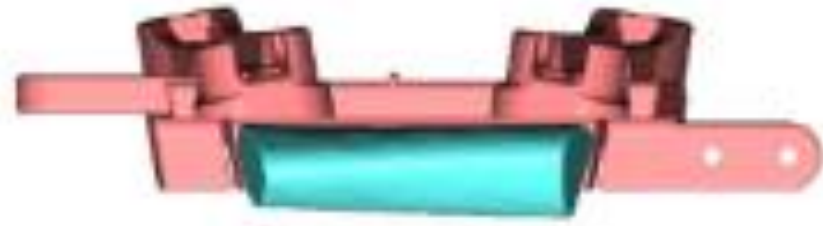


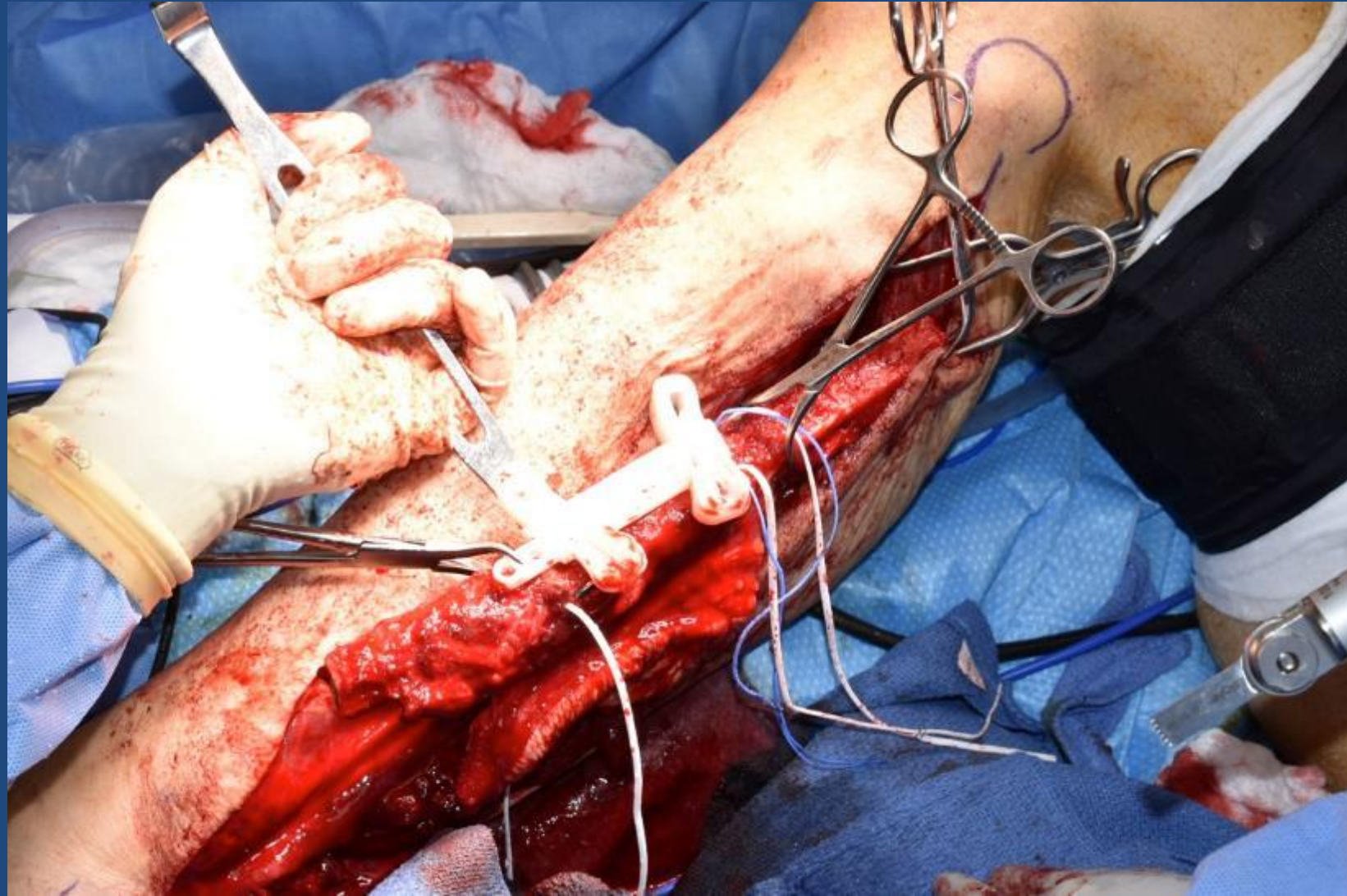


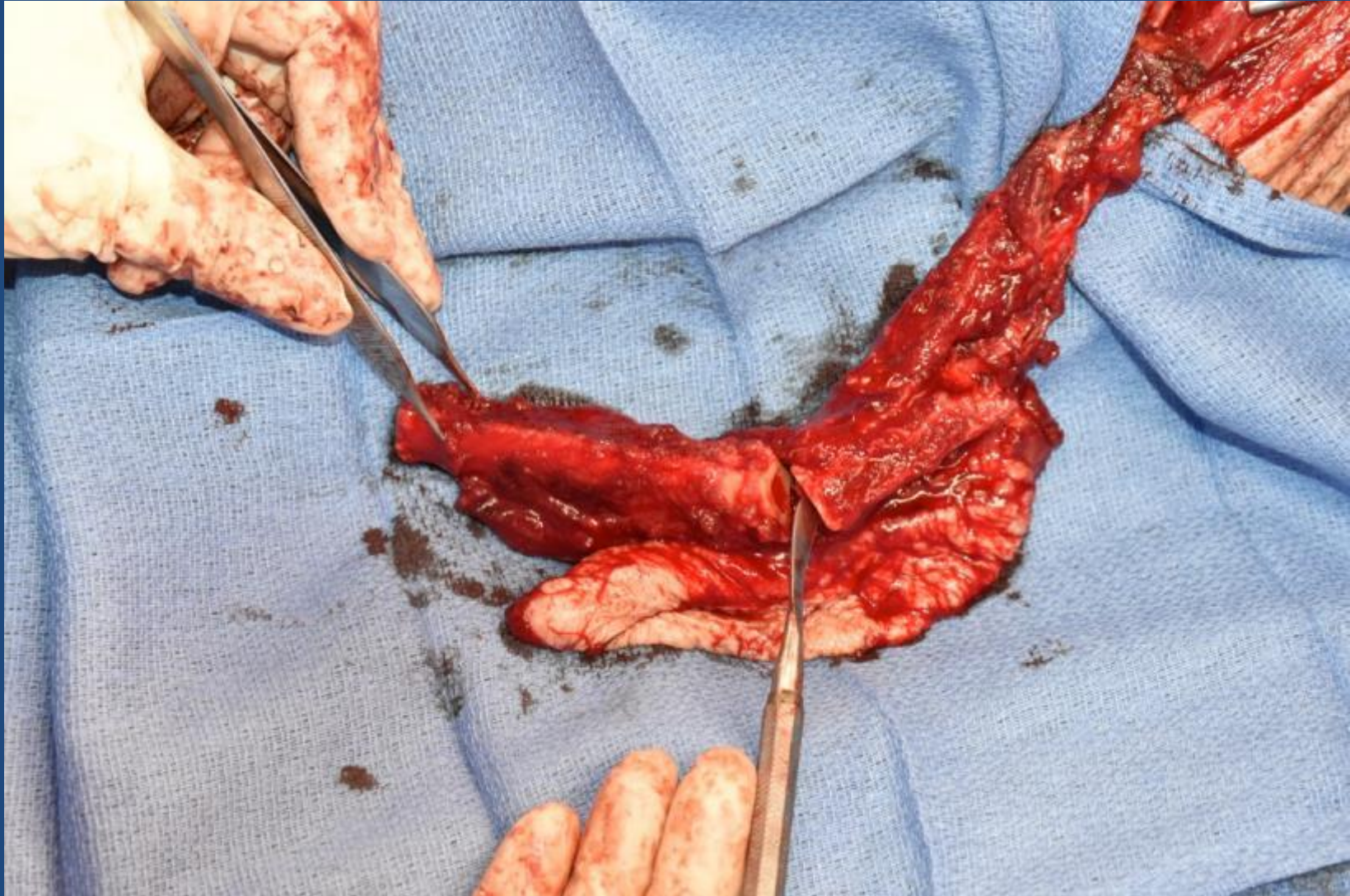




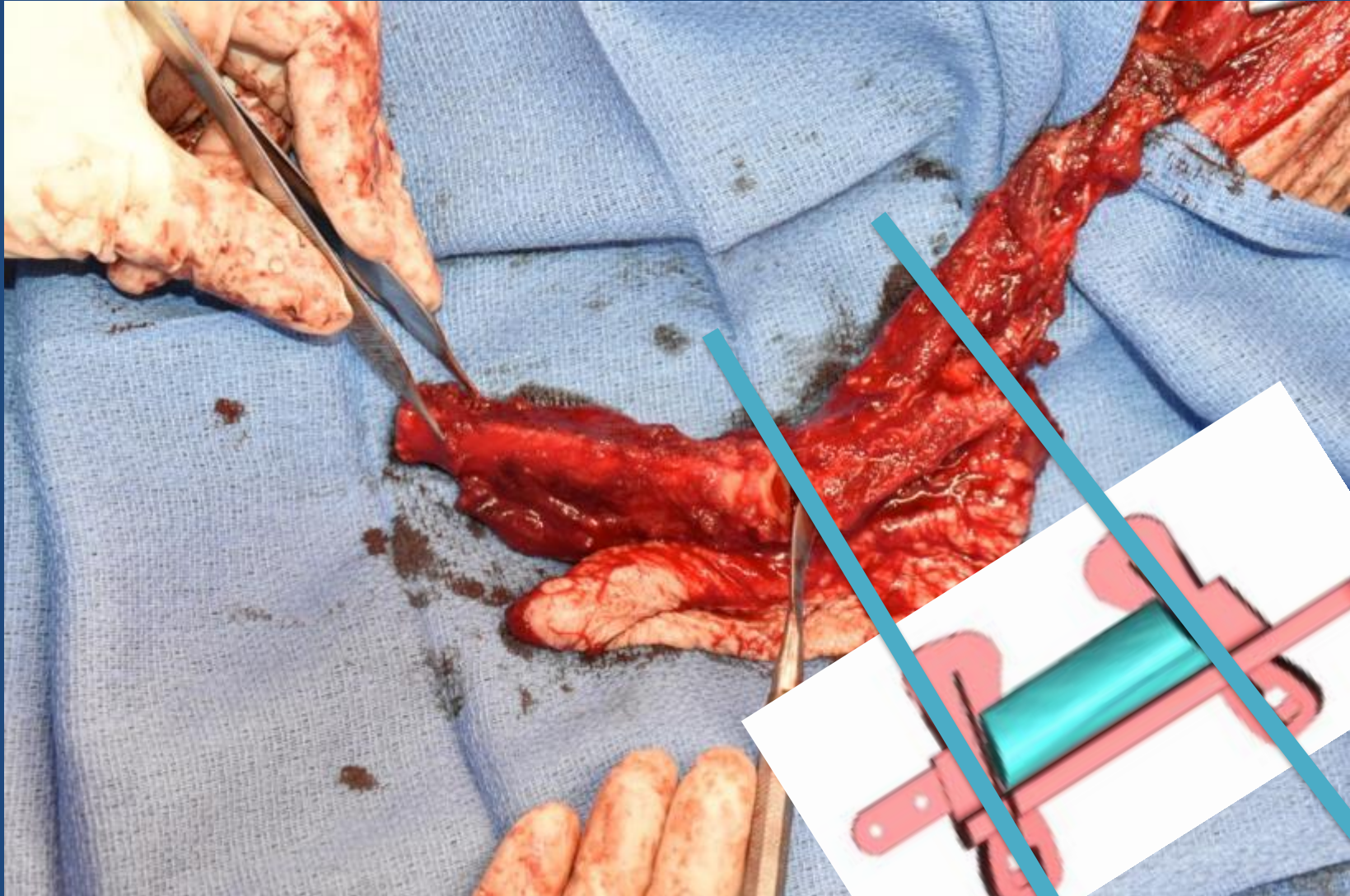


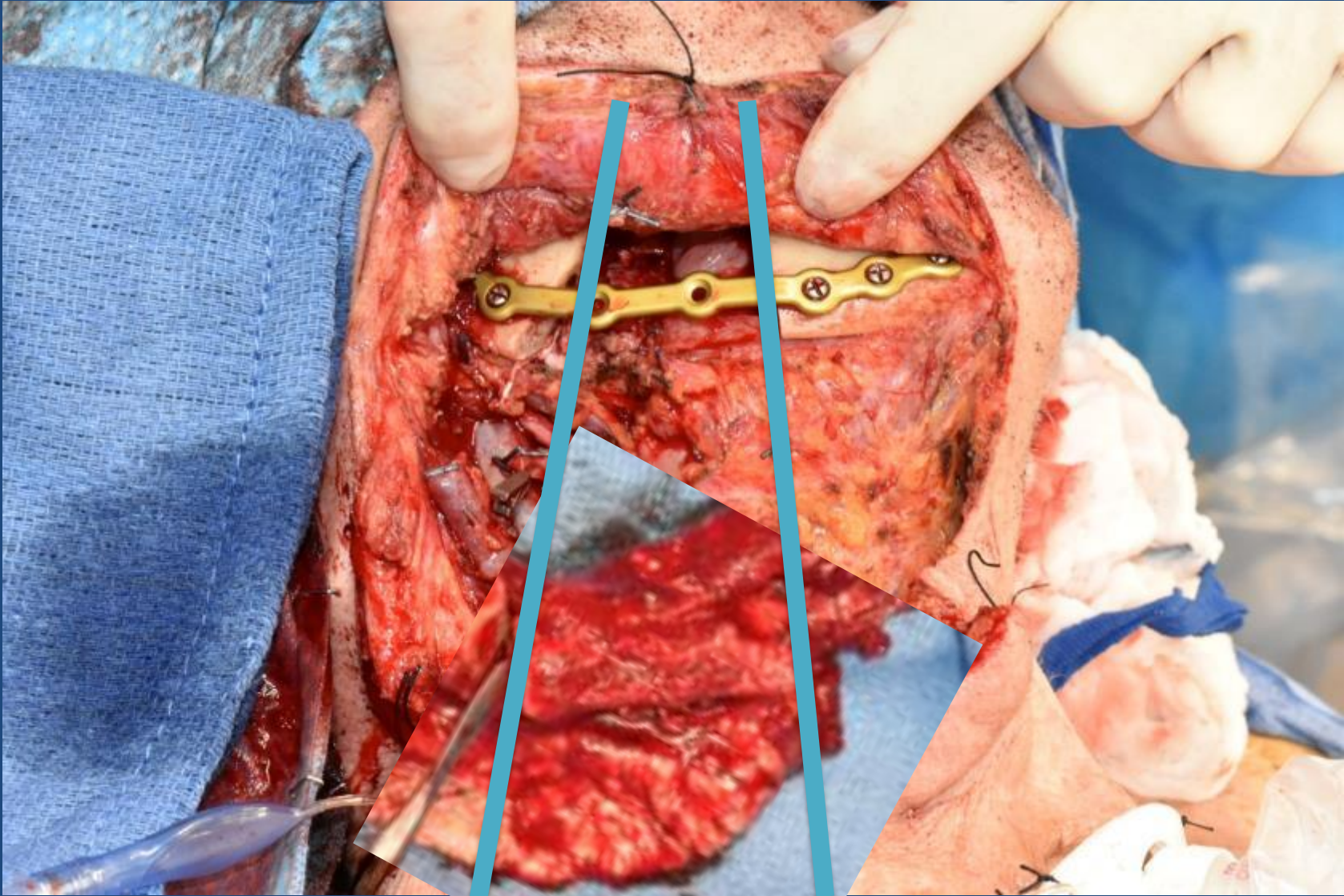


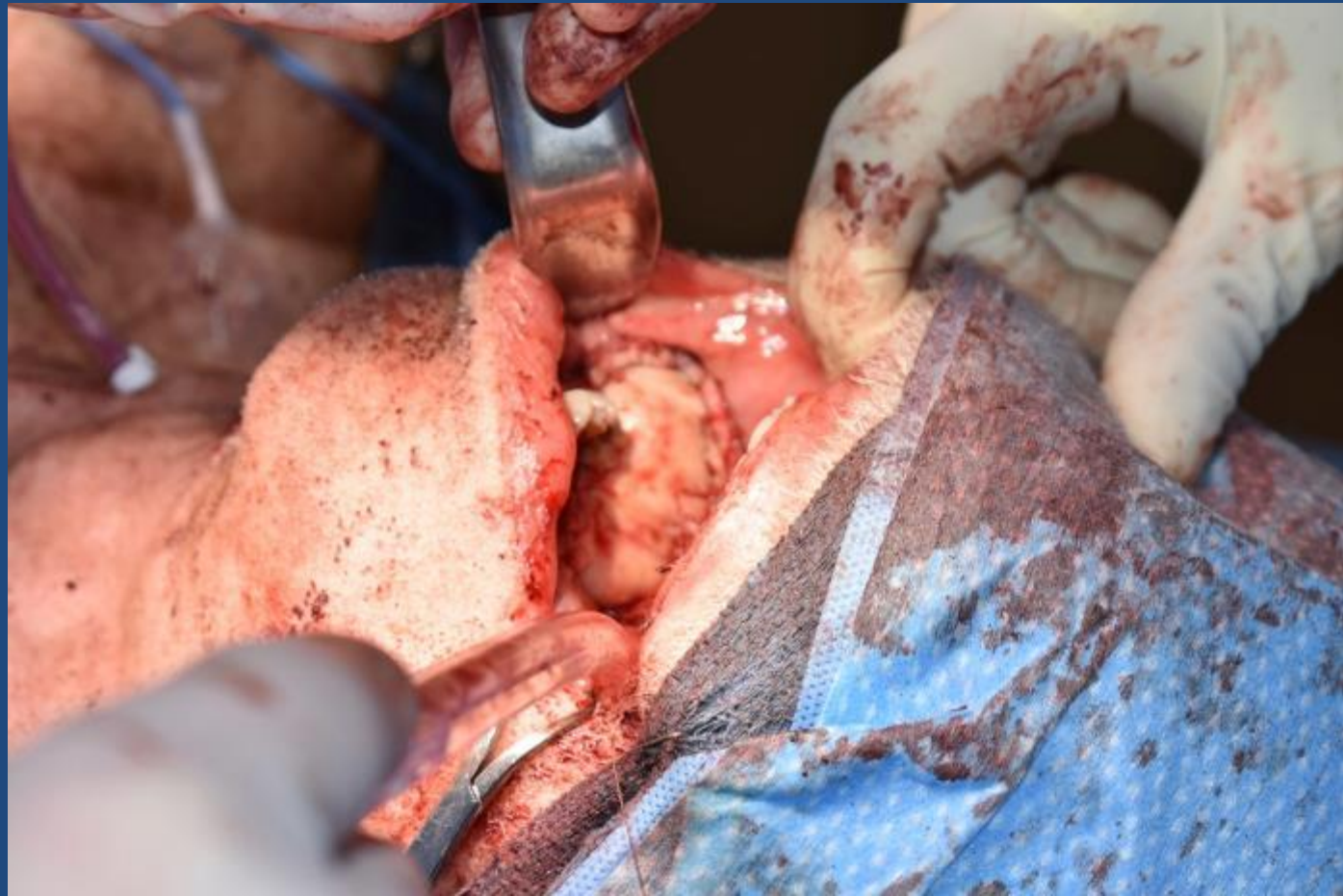




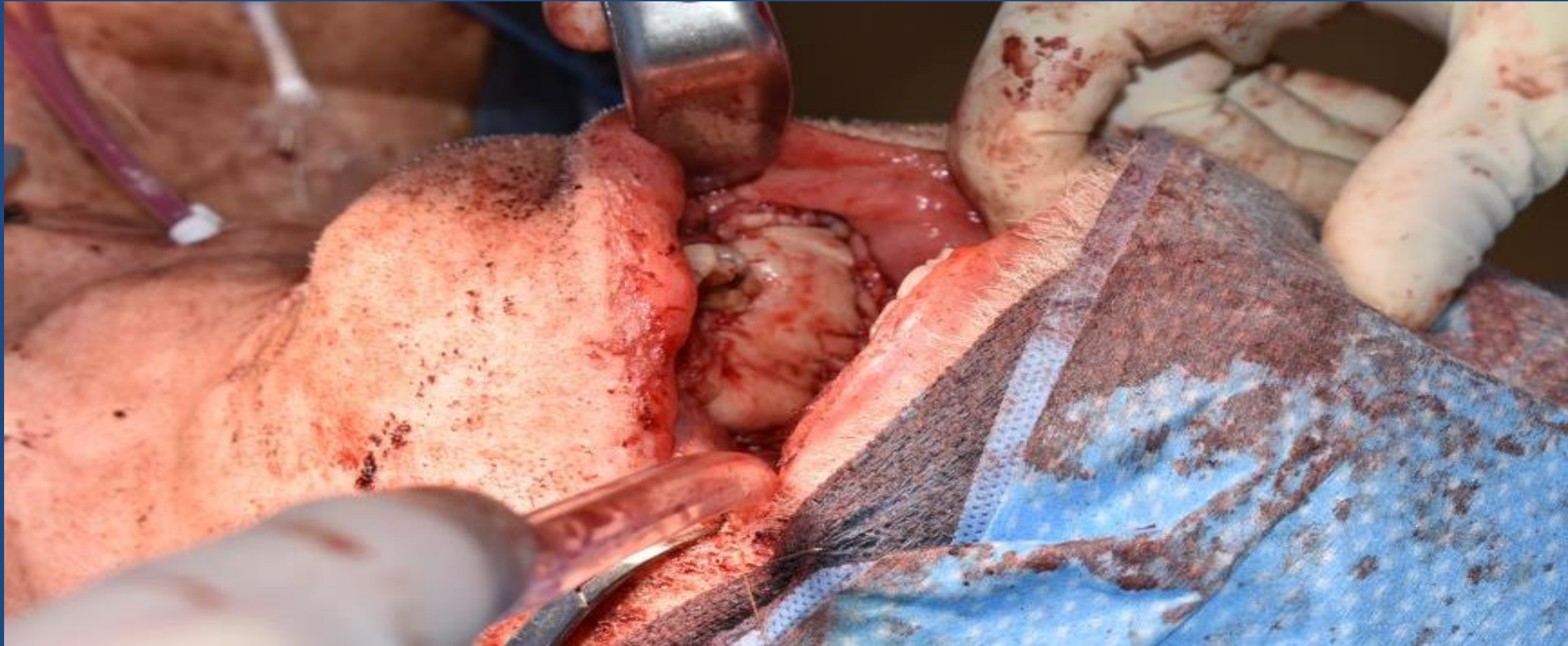












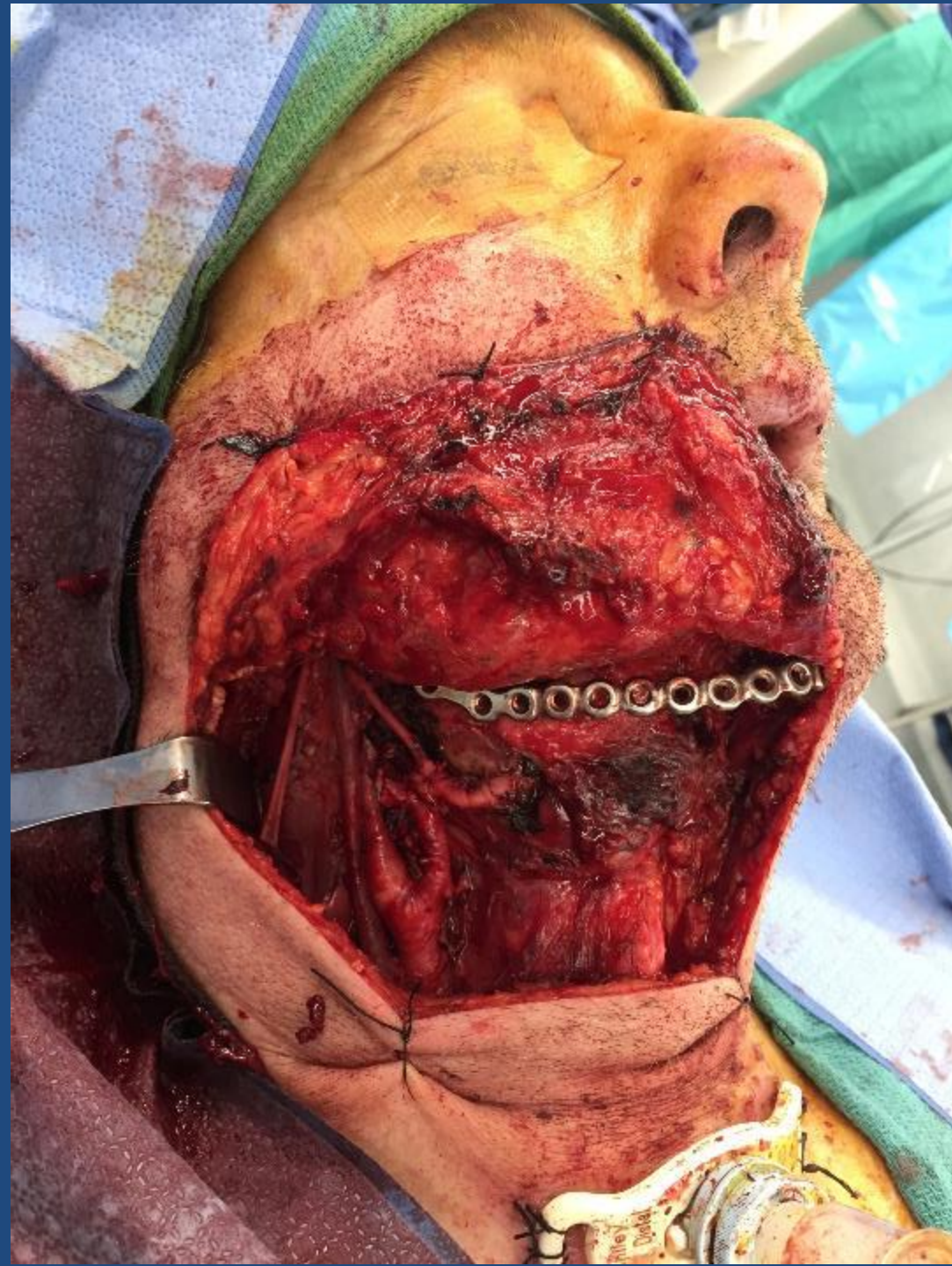
# Patient Case

Hx of advanced oral cavity malignancy involving  
mandible cortex



















# Thank You

Sameep P. Kadakia, MD

[spkadakia@premierhealth.com](mailto:spkadakia@premierhealth.com)

Office: 513-420-4678

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