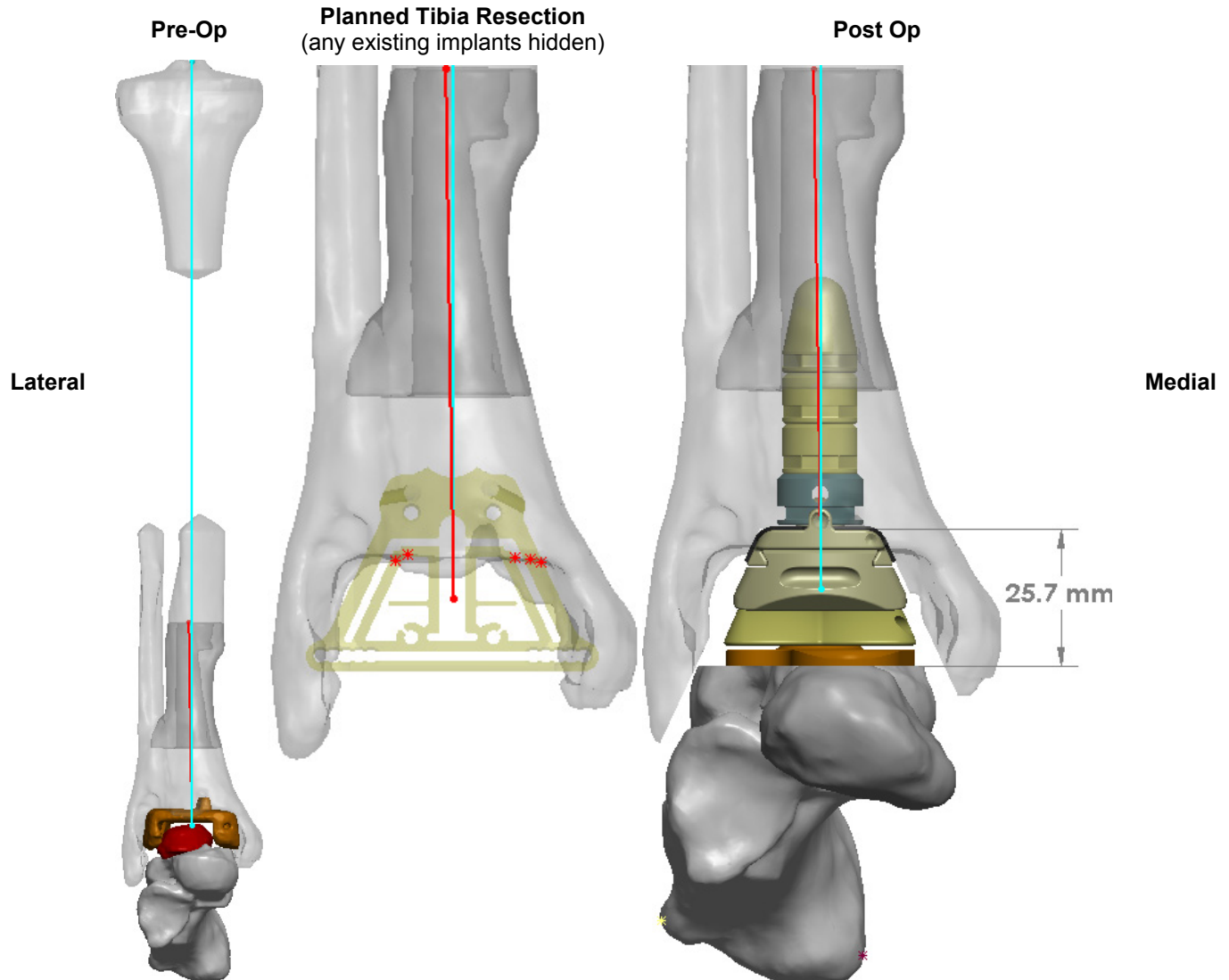


PROPHECY™ INVISION™

Preoperative Navigation Report



Tibia: INBONE™ Size 3 Long Right
 Talus: INVISION™ Dome Sz 3 , INVISION™ Plate Sz 3 Ht: 3 mm Right Standard
Anterior Views



— Tibia Mechanical Axis
 — Tibia Anatomic Axis

Axis Angles Anatomic vs. Mechanical

Coronal = 0.8°

Implant Information:

Tibial tray: INBONE™ Size 3 Long Right

Tibial Stem Components:

Top: 14 mm
 Mids: 14 mm , 14 mm
 Base: 16 mm

Talar dome: INVISION™ Dome Sz 3

Plate: INVISION™ Plate Sz 3 Ht: 3mm Right Standard

Poly insert: Size 3. Thinnest shown.

PROPHECY™ Part Number: PROPINV

- The full height of the implant construct (tibia tray + thinnest poly+ talar dome + talar plate): 25.7 mm
- Medial malleolus thickness at implant corner: 10.9 mm

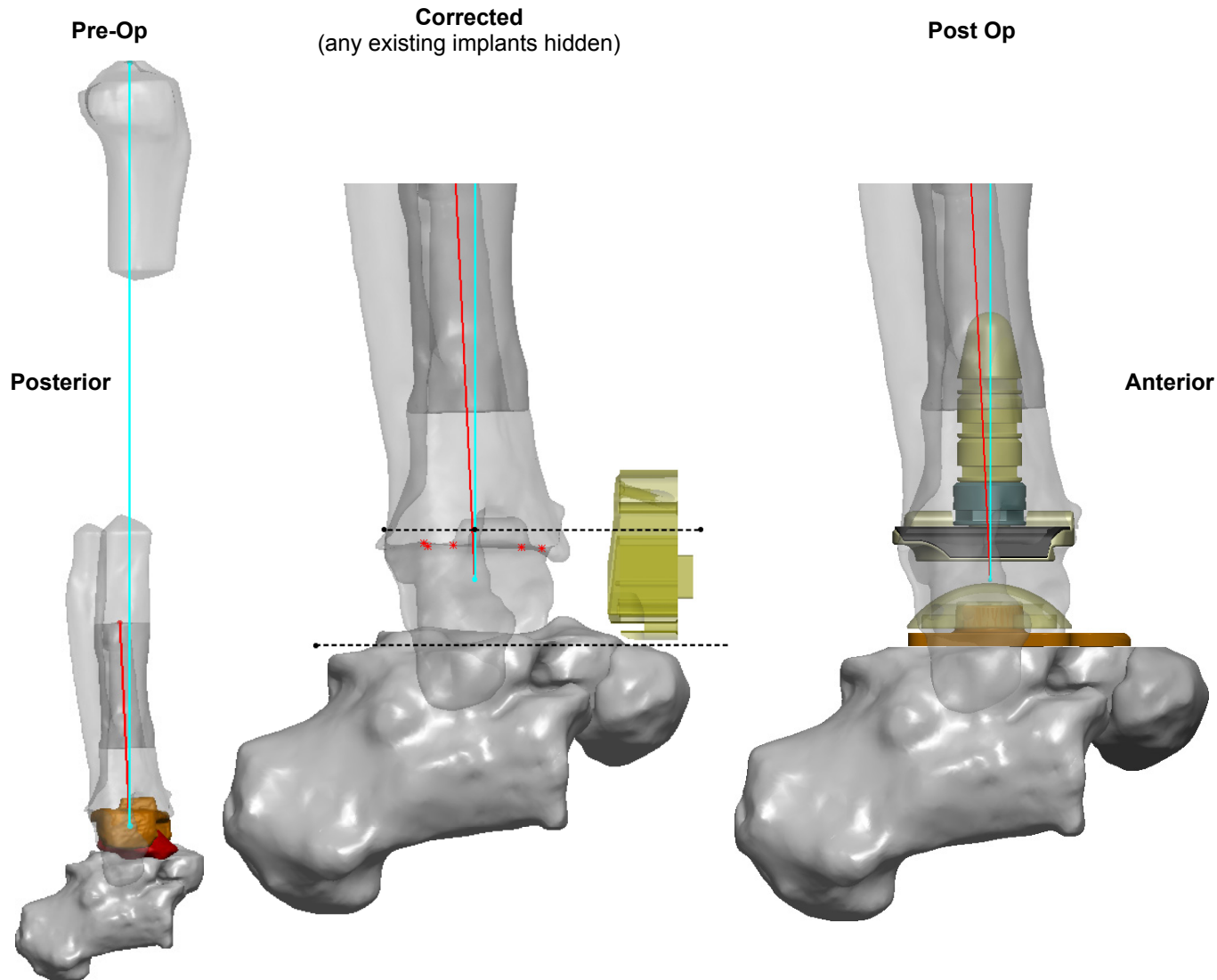
PROPHECY™ INVISION™

Preoperative Navigation Report



Tibia: INBONE™ Size 3 Long Right
Talus: INVISION™ Dome Sz 3 , INVISION™ Plate Sz 3 Ht: 3mm Right Std.

Sagittal Views from Lateral Side



— Tibia Mechanical Axis
— Tibia Anatomic Axis
- - Resection Planes

Axis Angles Anatomic vs. Mechanical

Sagittal = 2.8°

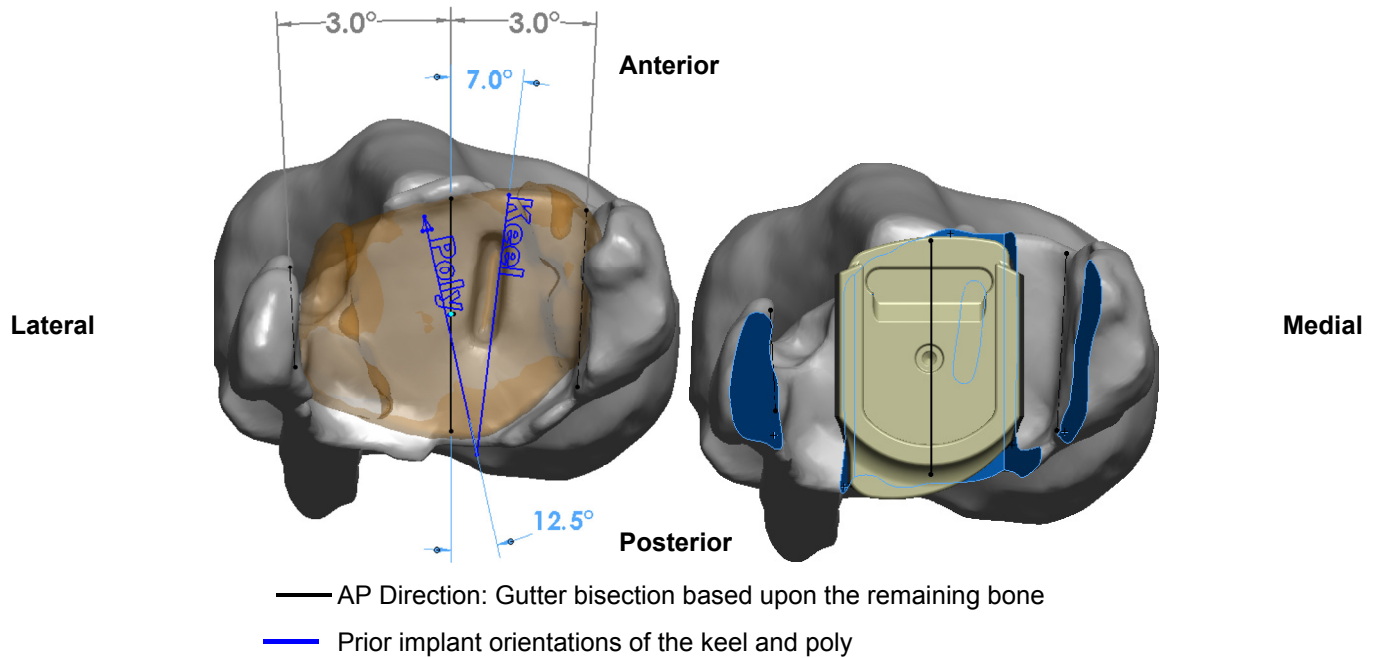
Tibia Implant Alignment

- Coronal Plane: Mechanical (long) Axis
- Sagittal Plane: Mechanical (long) Axis

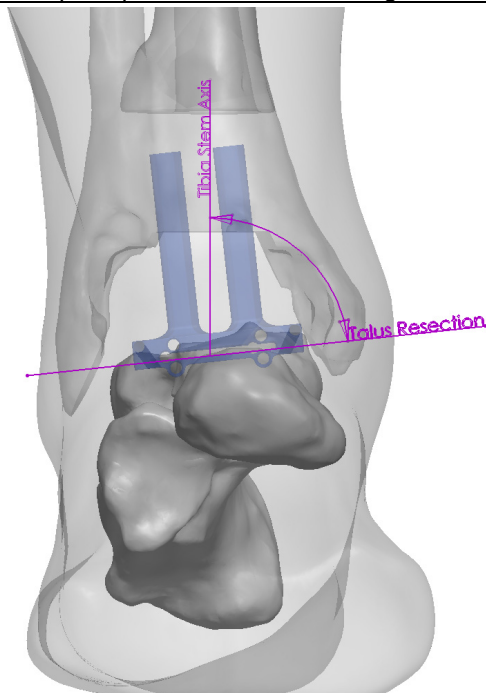
Medial/Lateral placement is set:

- to Bisect Gutters
- to ensure the stem implants fall within the tibial canal
- The red points represent discrete points on bone of the distal tibia. The tibia resection is set to resect at least 3.0 mm proximal to the red points.
- The tibia resection is 2.7 mm distal to the top of the Agility keel.

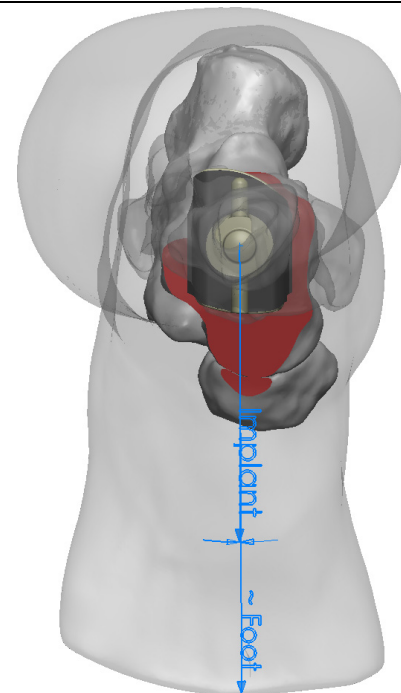
Tibia: INBONE™ Size 3 Long Right
Tibia Rotation Distal Views



- Tibia gutter angle: 6°.
- Planned implant orientation is 7.0° external to the prior implant keel orientation, 12.5° internal to prior poly orientation
- A-P Tibia implant placement: Anterior Edge.



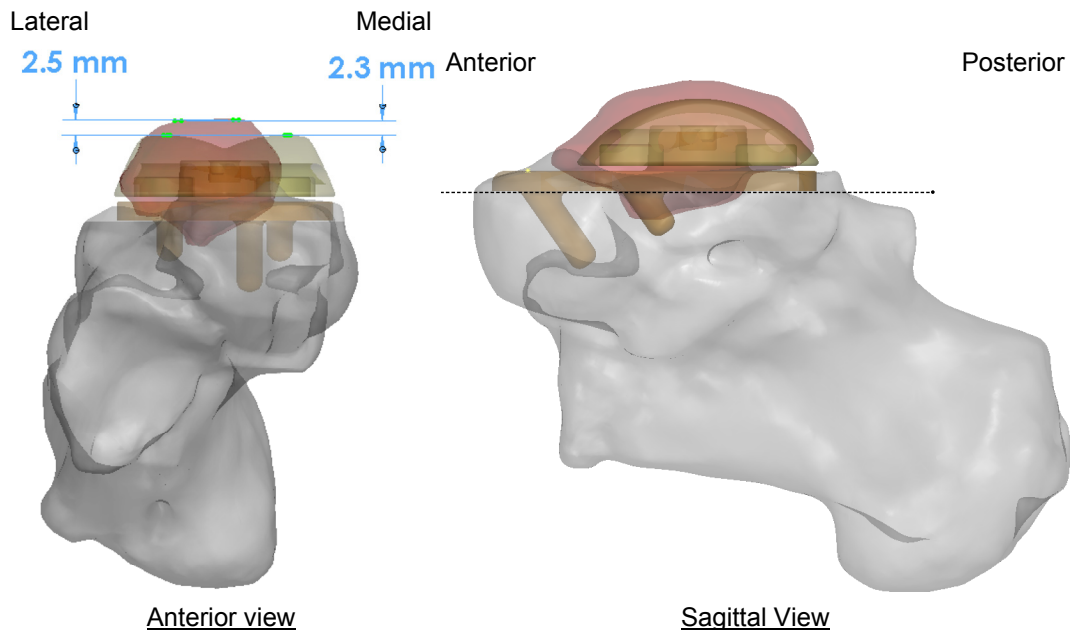
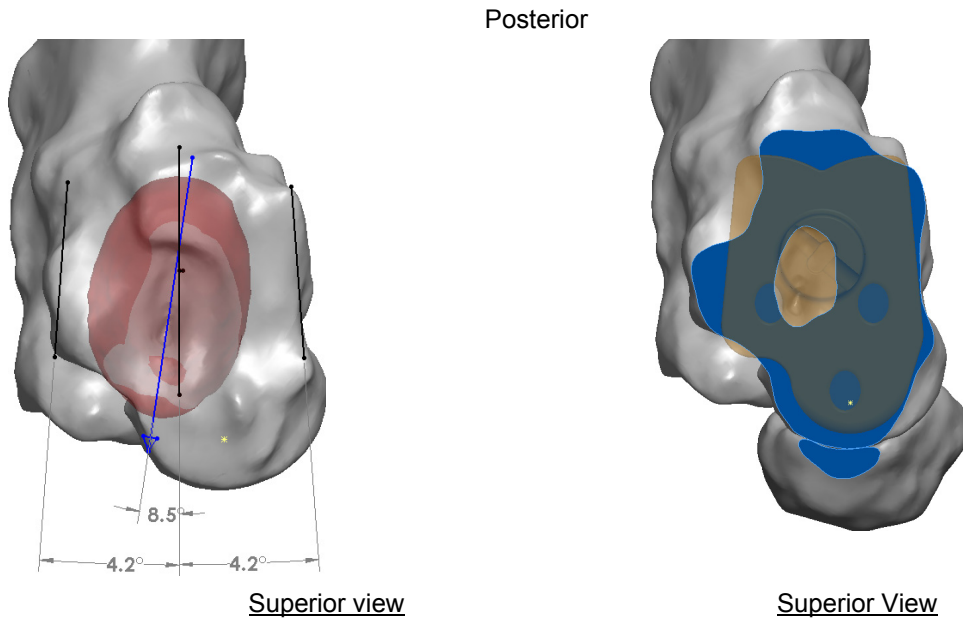
Talar resection guide relative to the talar bone and the planned tibia alignment axis. The resections will result in a correction of 6.2° from varus. Ligament balancing may be necessary to achieve a balanced joint.



The tibia internal/external orientation is 0.2° external to the approximate foot orientation. The talus orientation is 5.1° external to the tibia orientation.

Talus: INVISION™ Dome Sz 3 , INVISION™ Plate Sz 3 Ht: 3mm Right Std.
Talus Rotation Top Views

- AP Direction: Gutter bisection based upon the remaining bone
— Approximate prior talar implant orientation.



Notes:

- Talus resection angle in Coronal Plane: Set to correct 6.2° from varus.
- Implant is selected to maximize bone coverage while minimizing implant overhang. There is 2.6 mm uncovered, resected talar neck anterior to the talar plate
- Talar Gutter angle: 8.4°. Talus anterior direction: Gutter bisection.
- The distal flat of the talar implant is 3.2 mm distal to the yellow talar neck point shown above.
- The resection depth and planned implants result in a talar joint height that is 2.3 - 2.5 mm more distal than the prior implant.

PROPHECY™ INVISION™

Preoperative Navigation Report



Summary

Tibial Alignment Method

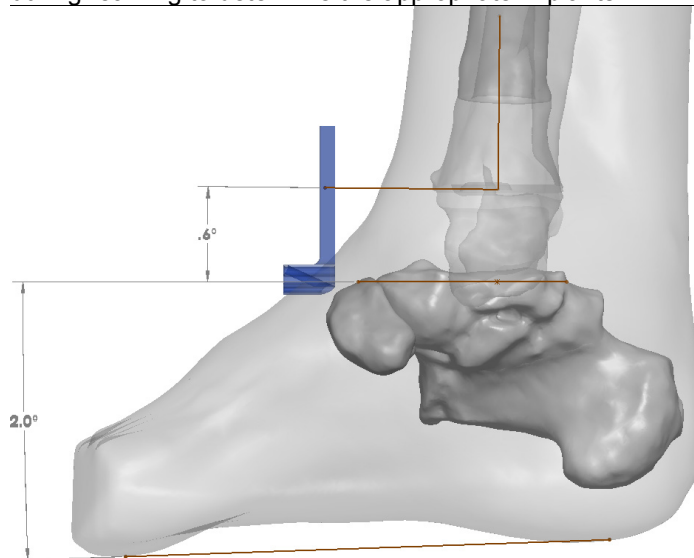
- Tibia Implant Alignment in Coronal Plane: Mechanical axis.
- Tibia Implant Alignment in Sagittal Plane: Mechanical axis.
- Anterior direction is set by the Gutter bisection of remaining bone.
- Medial/lateral implant placement:
 - Bisect Gutters.
 - The cuts on the medial malleolus and fibula are minimized.
 - Upsize to maximize AP tibial coverage.
- Anterior/Posterior implant placement: Anterior Edge

Talar Alignment Method

- Talus implant flexion is set to: Parallel to the bottom of the foot on weight bearing sagittal x-ray (See Appendix ii).
- Talus implant is selected to maximize bone coverage while minimizing implant overhang.
- Anterior direction is set by Gutter bisection of remaining bone.
- Resection depth: 3.2 mm distal to the yellow talar neck point shown above.

PROPHECY™ Engineering Comments

- The tibia stem makes contact with the anterior cortex. The final decision on the number of stem segments and diameters can be decided intraoperatively based on the reamer advancement. Use fluoro imaging and tactile feedback during reaming to determine the appropriate implants.

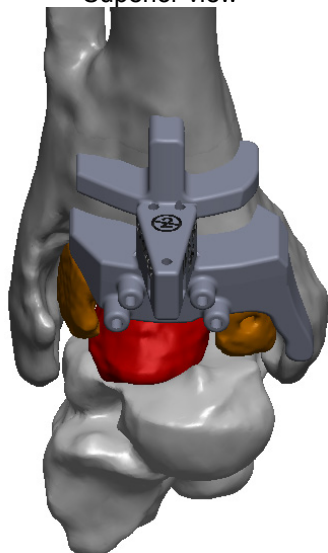


Sagittal view of pre-op talus showing:

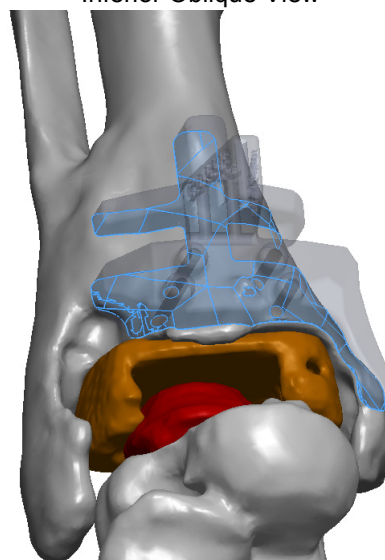
- Talus resection vs. tibia resection.
- Talus resection vs. bottom of foot line.

Tibial Alignment Guide

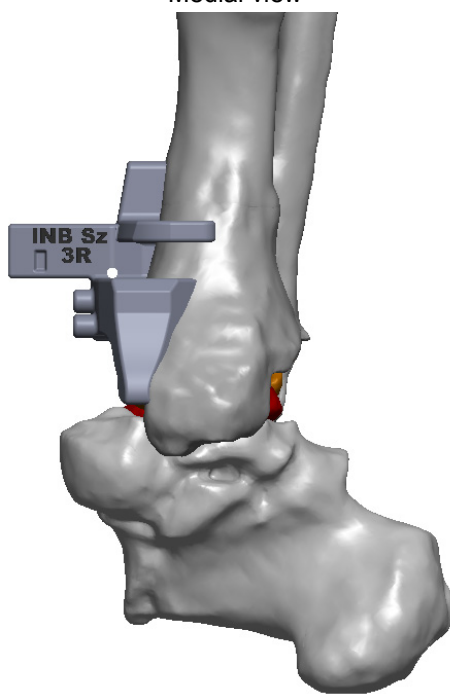
Superior view



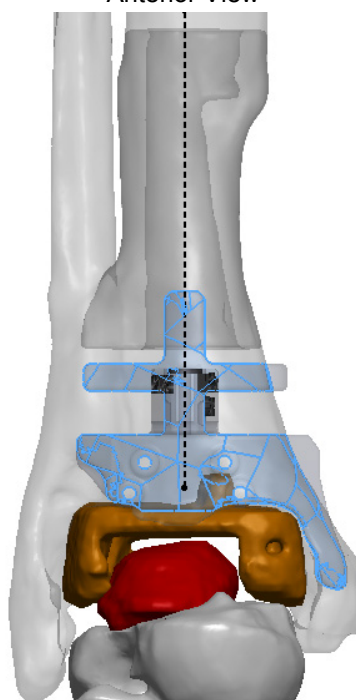
Inferior Oblique View



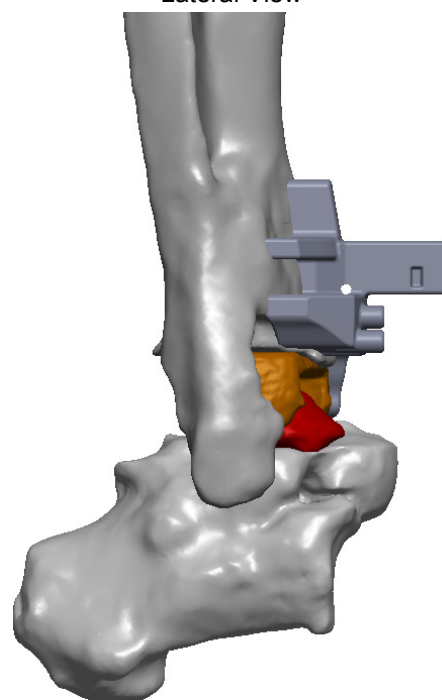
Medial view



Anterior View



Lateral View

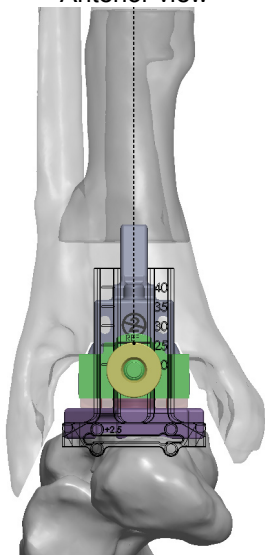


Tibia Guide Comments:

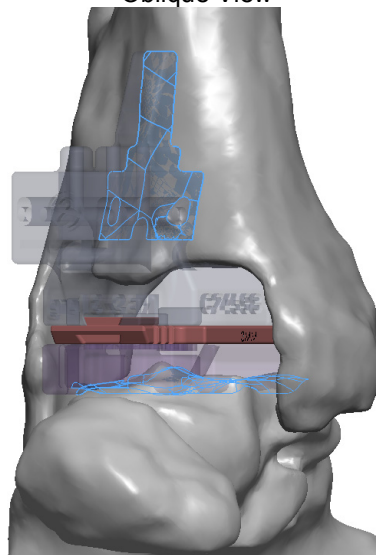
- The light blue surfaces indicates surface match contours
- Take caution when placing the distal and medial k-wires as they are within 1mm of the tibia implant. K-wires that interfere will have to be advanced after removing the tibia implant.

Joint Spacer Guides for talar resection

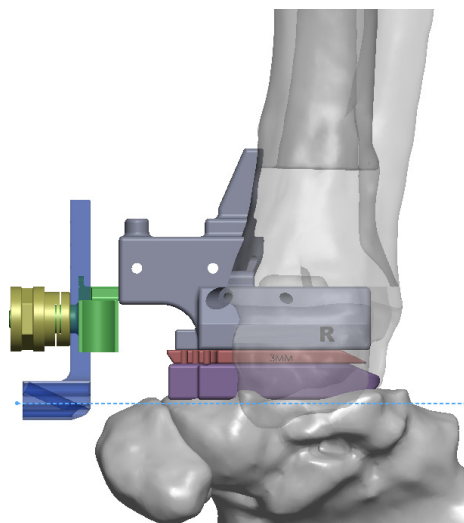
Anterior view



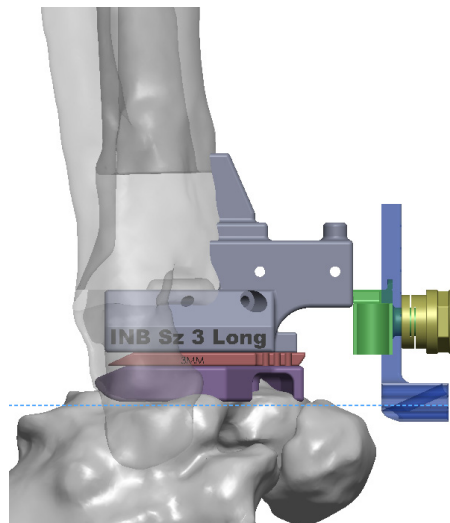
Oblique View



Medial view



Lateral View



Part Identification



Spacer Guide Comments:

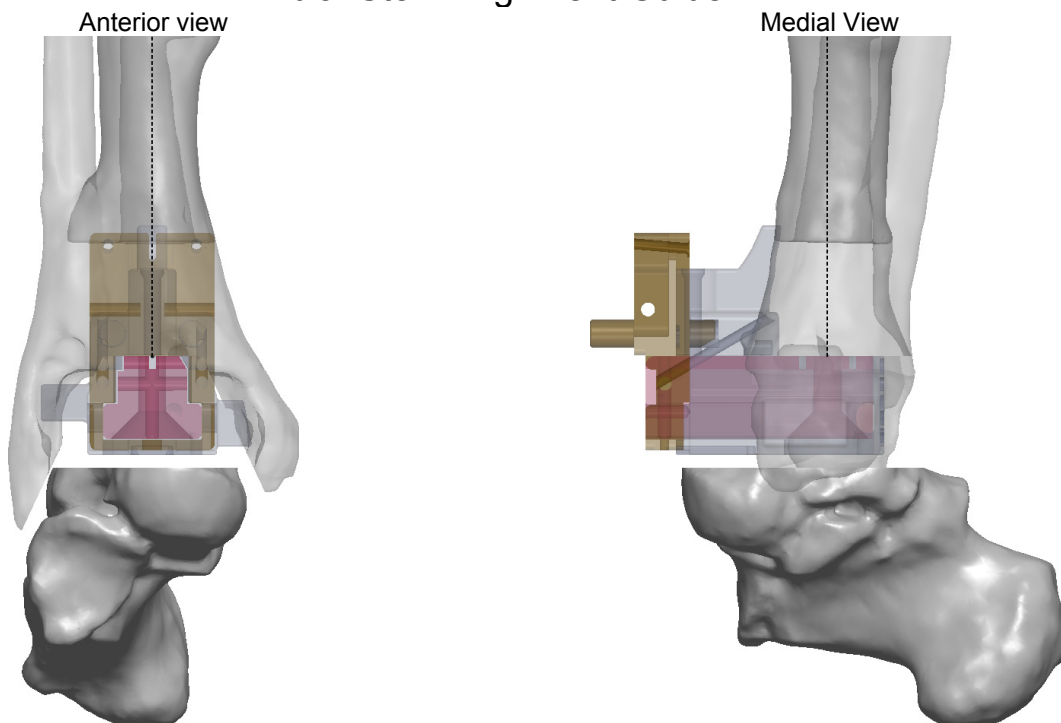
- The light blue surfaces indicates surface match contours

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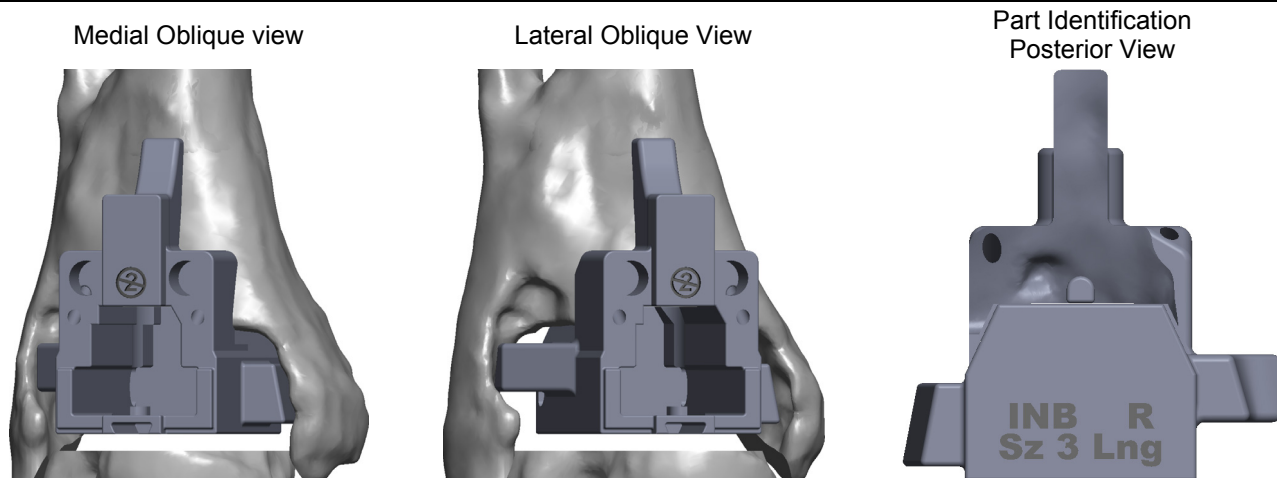
Preoperative Navigation Report



Tibial Stem Alignment Guide



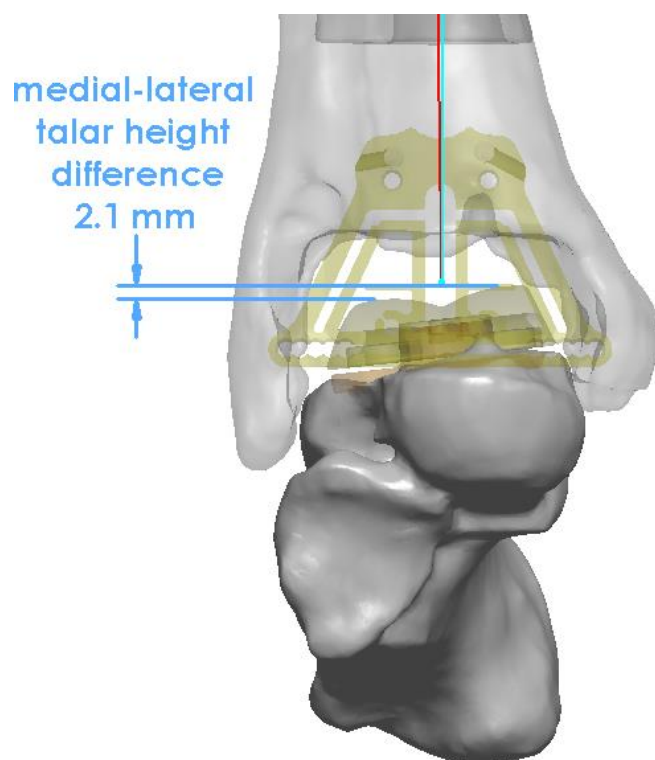
--- Tibia Stem Axis



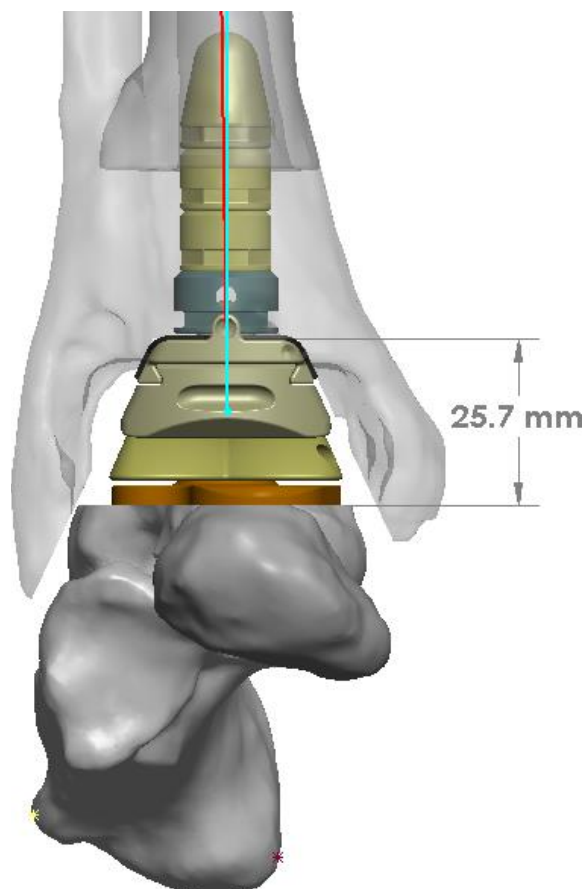
Stem Guide Comments:

- The tibia stem guide was designed to be ~3 mm shorter than the total planned resection height. The shims can be added between the stem guide and talus to fill the joint space as needed before drilling and reaming.

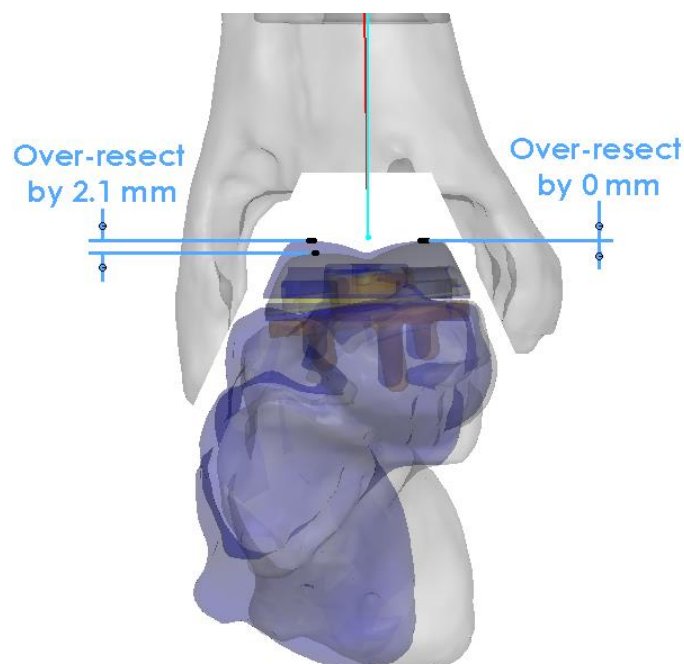
APPENDIX: Talus Resection Angle and Tibia Resection Height



Pre-op medial-lateral talar height difference:
2.1 mm



The full height of the implant construct
(tibia tray + thinnest poly+ talar dome + talar plate):
25.7 mm

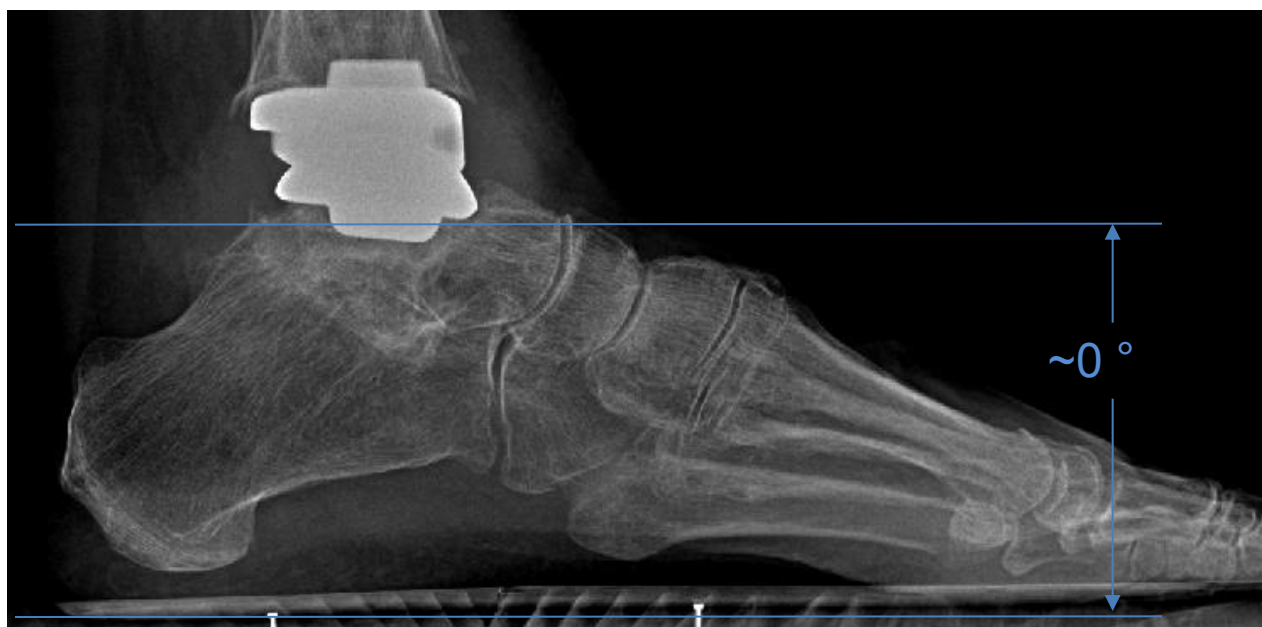


The swing of the talus & overall resection height
(relative to the implant height).
The "corrected" talus is highlighted.

- The total planned resection height is:
27.8 mm on the lateral side
25.7 mm on the medial side
- The system has 10 mm of additional
poly thickness available, and a thicker
talar plate.

APPENDIX: Talar resection angle when weight-bearing

- The following images show the approximate registration of the 3D model of the talus from the CT scan to the sagittal weight bearing x-ray provided.
- Therefore, the planned talar resection angle has $\sim 0^\circ$ of slope relative to the ground from the sagittal weight bearing x-ray.

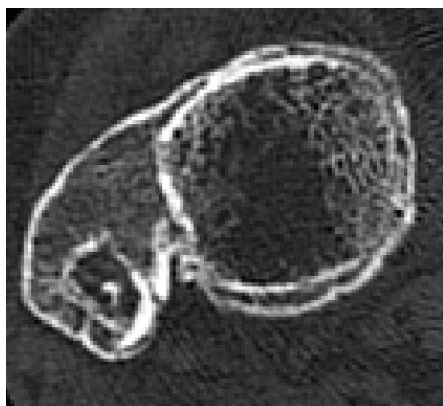


PROPHECY™ INVISION™

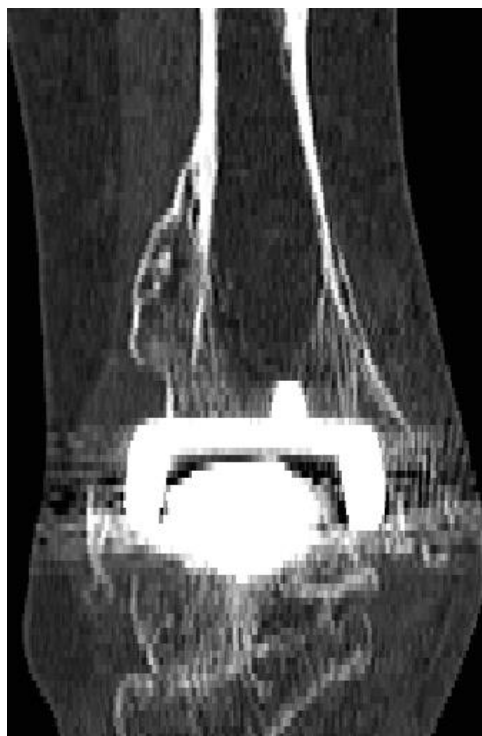
Preoperative Navigation Report



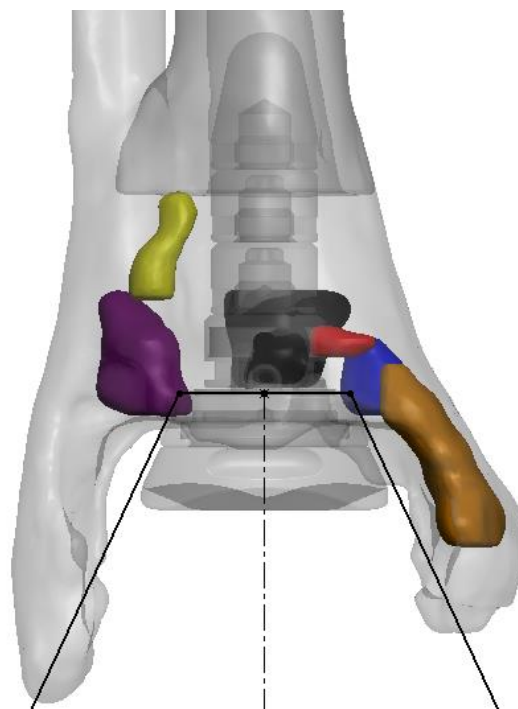
Any significant bone voids in the tibia near the expected location of the implant are shown below. Please refer to the patient's CT scan for more details. Please also note tibia canal appears to be extended distally with low bone volume fraction in the metaphysis.



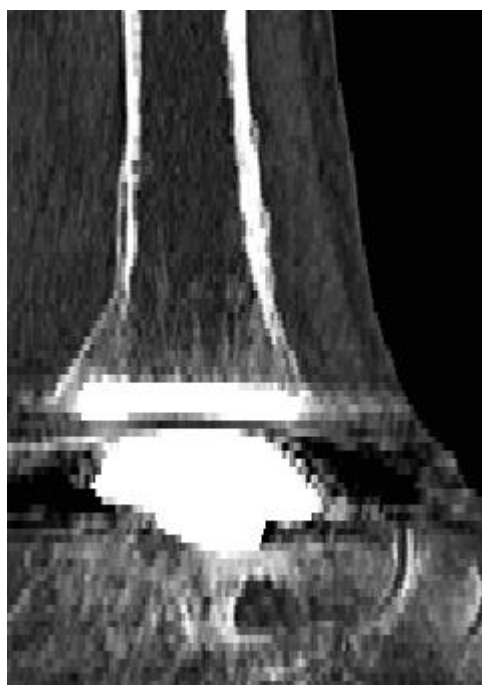
CT scan axial view



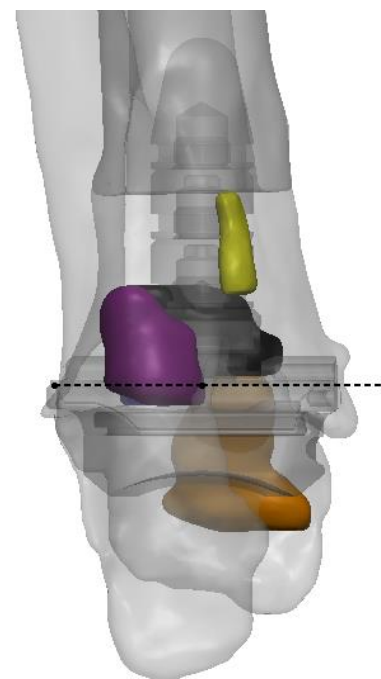
CT scan coronal view



Anterior view of tibia and fibula with implant.



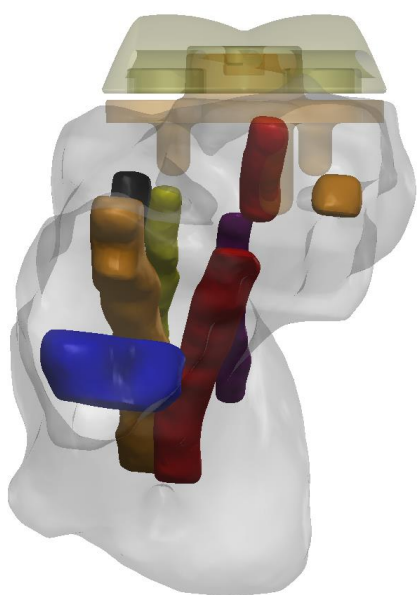
CT scan sagittal view



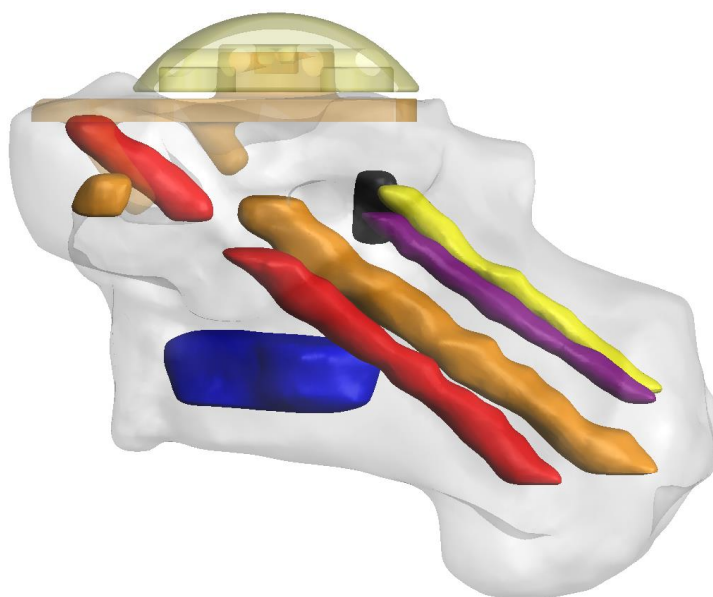
Lateral view of tibia and fibula with implant.

Talus Bone Void Appendix

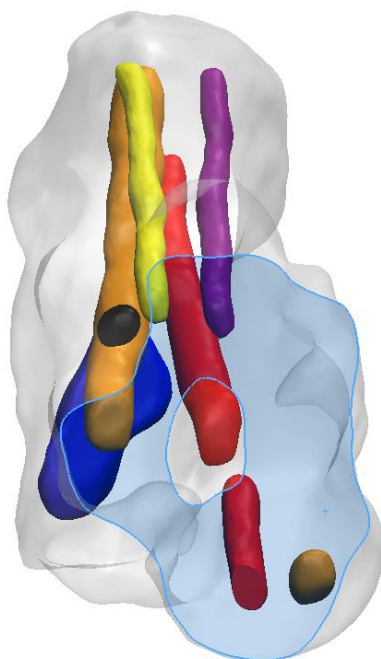
Any bone voids are shown below relative to the implants and resection plane. Please refer to the patient's CT scan for more details.



Anterior view of talus with implant.



Sagittal view of talus with implant.



**Superior view of talus after the
planned resection.**