Medial

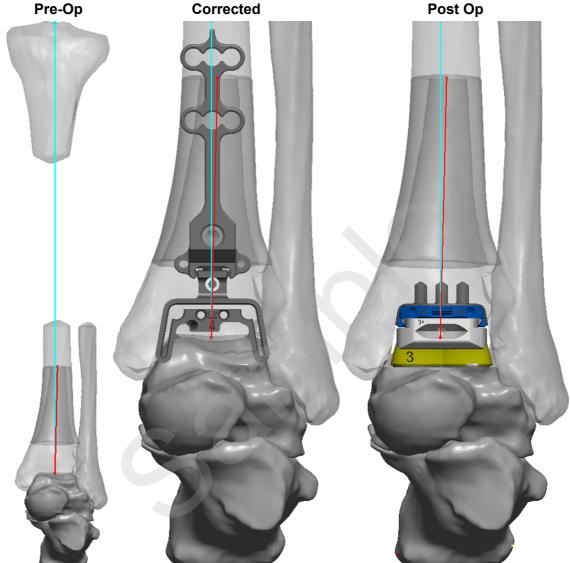
Surgical Planning

CASE##### - Surgeon: I L. Training Fancy Foot 2.0 - Left - Surgery

Tibia: Infinity® Adaptis® Size 4 Long Talus: Infinity® Adaptis® Chamfered Size 3

**Anterior Views** 

**Post Op** 



Tibia Mechanical Axis Tibia Anatomic axis

**Axis Angles** Anatomic vs. Mechanical Coronal = 1.4°

Tibia Implant Alignment

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

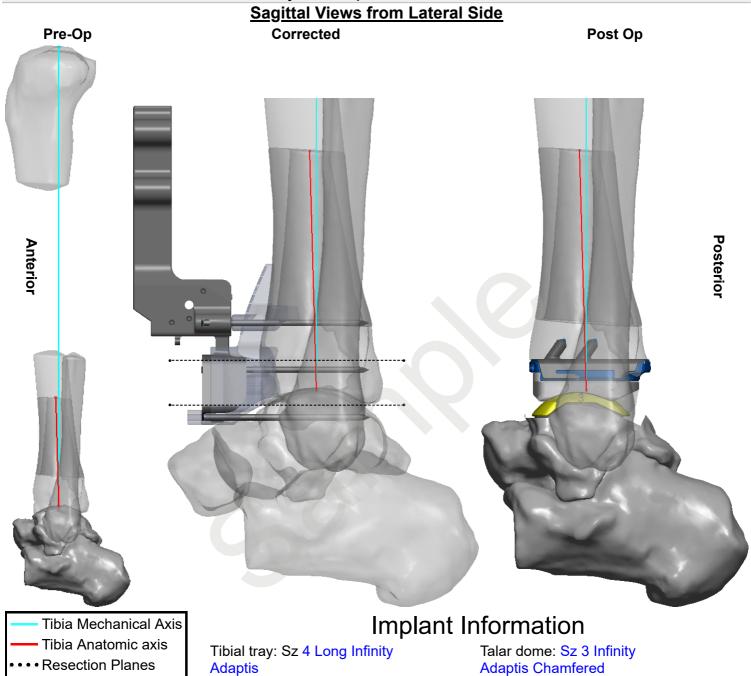
Medial/Lateral placement is set:

- to Match medial gutter corner
- to ensure there is bone coverage on lateral
- Medial malleolus at implant corner: 11.4 mm. Notes:

N/A

Lateral

Tibia: Infinity® Adaptis® Size 4 Long Talus: Infinity® Adaptis® Chamfered Size 3



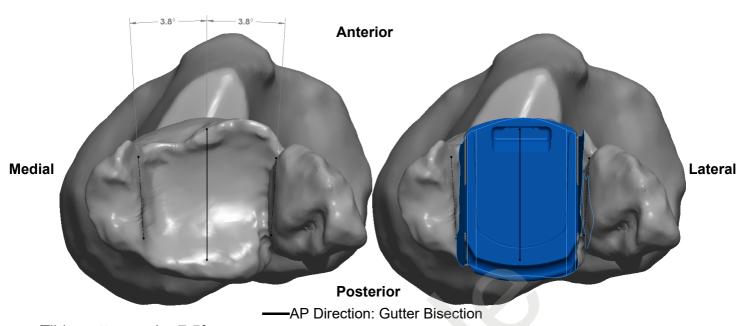
**Axis Angles** Anatomic vs. Mechanical Sagittal = 1.6°

Tibial insert: Sz 3 Plus

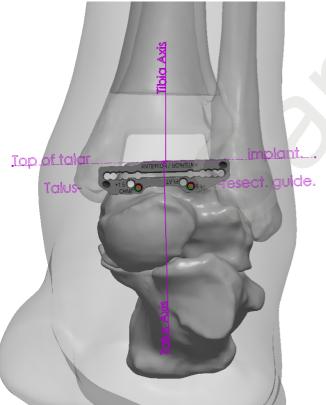
Notes: N/A Prophecy® Part Number: PROPINF

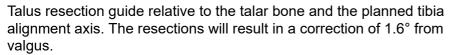
## Surgical Planning

# Tibia: Infinity® Adaptis® Size 4 Long Tibia Rotation Distal Views



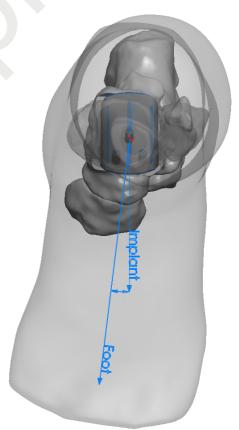
- Tibia gutter angle: 7.5°.
- A-P Tibia implant placement: Anterior Edge.





Notes:

N/A

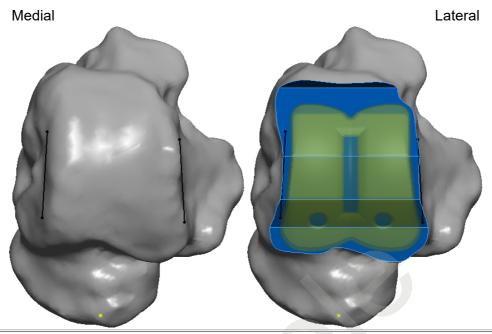


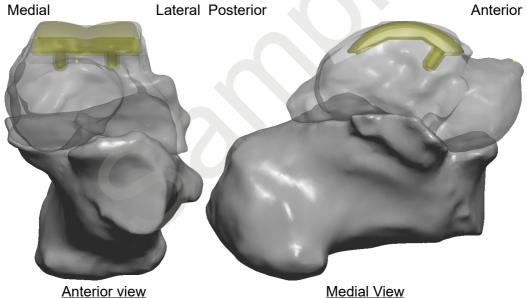
The tibia internal/external orientation is 7.1° external to the approximate foot orientation.



# Talus: Infinity® Adaptis® Chamfered Size 3 Talus Rotation Top Views

**AP Direction:** Gutter bisection





#### Notes:

- Talus resection angle in Coronal Plane: parallel to the natural talar dome.
- The talus implant is selected to maximize bone coverage while minimizing implant overhang.
- Talar Gutter angle: 6.8°. Talus anterior direction: Gutter bisection.
- The resection depth is set to 0 mm less than the thickness of the talar implant.
- The distal flat of the talar implant is 2.2 mm proximal to the yellow talar neck point shown above.



## Summary

#### **Tibial Alignment Method**

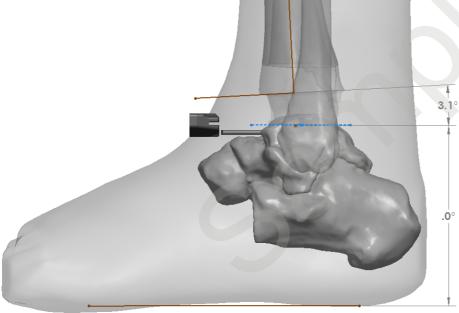
- Tibia Implant Alignment in Coronal Plane: Mechanical (long) axis.
- Tibia Implant Alignment in Sagittal Plane: Mechanical (long) Axis.
- Anterior direction is set by the Gutter Bisection.
- Medial/lateral implant placement:
- Match medial gutter corner.
- The cuts on the medial malleolus and fibula are minimized.
- · Upsize for 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.
- Talus implant is selected to maximize bone coverage while minimizing implant overhang.
- Anterior direction is set by Gutter bisection.
- Resection depth: 0 mm less than the thickness of the talar implant.

#### **Prophecy Engineering Comments**

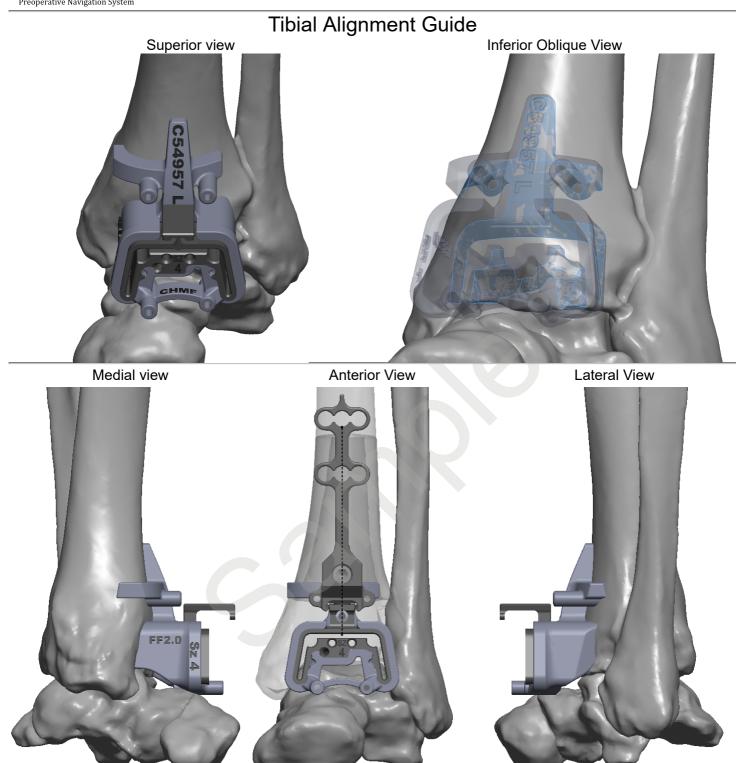
N/A



Sagittal view of pre-op talus showing:

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

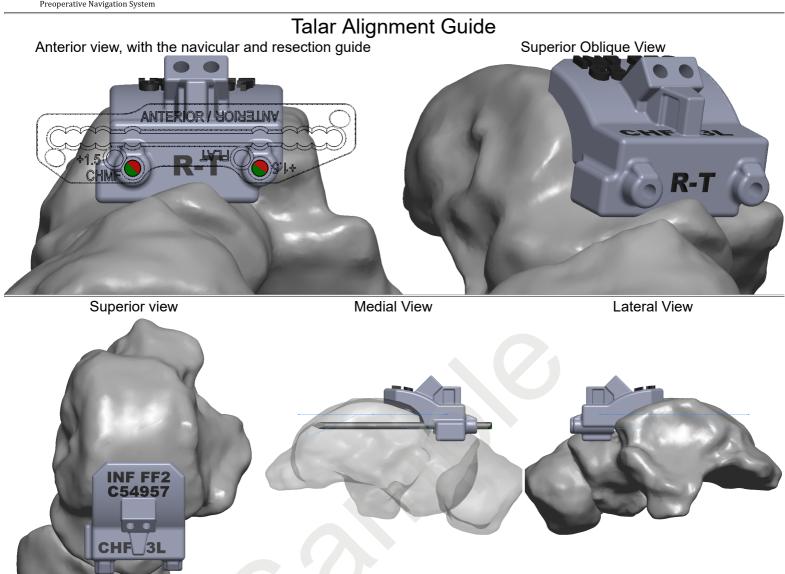
Prophecy<sup>®</sup> | Surgical Planning



#### **Tibia Guide Comments:**

- The tibia guide as designed may be in close proximity to the patient's talar bone, therefore the talus would be need to be plantarflexed prior to placing the tibia alignment guide. Ensure a bump is placed under the distal tibia.
- The talus is shown in the uncorrected (as-scanned) orientation. If using the coupled-alignment talus pin holes, ensure the talus is manually adjusted into the desired varus/valgus orientation and dorsi-flexed as desired prior to pinning into the talus. Refer to pages 1 & 2 for the planned corrected talus alignment.





**Talus Guide Comments:** 

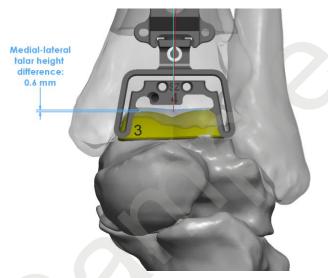
• Talar guide designed for use with: Reversible Talus Resect Guide # 33689021 oriented with CHMF upright.



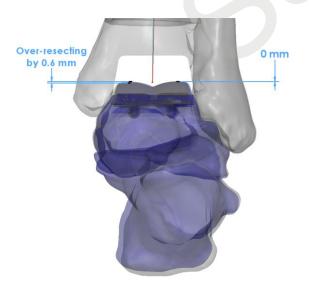


### CASE#### - APPENDIX: Total Resection Height

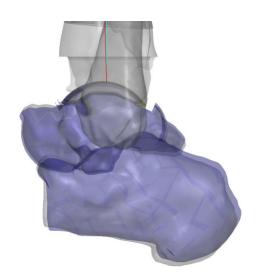
- Setting the total joint resection height is subject to coronal and sagittal deformities, unknown ligament status, and intraoperative joint balancing procedures.
- The total resection height relative to the standard implants on medial and lateral side is specified below. "Over-resecting" suggests the joint could have residual laxity with the thinnest poly, while "under resecting" may result in tightness after initial implantation. Ligament balancing procedures may be required to obtain a balanced ankle.
- The "corrected" hindfoot is highlighted blue in the images below.
- See page 3 and 4 for the talus resection angle and depth.
- If using the coupled alignment talus pinholes in the tibia guide, the standard total resection height is used.



Pre-op medial-lateral talar height difference: 0.6 mm



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



Lateral View. The "corrected" talus (highlighted) relative to the Pre-op talus (gray)

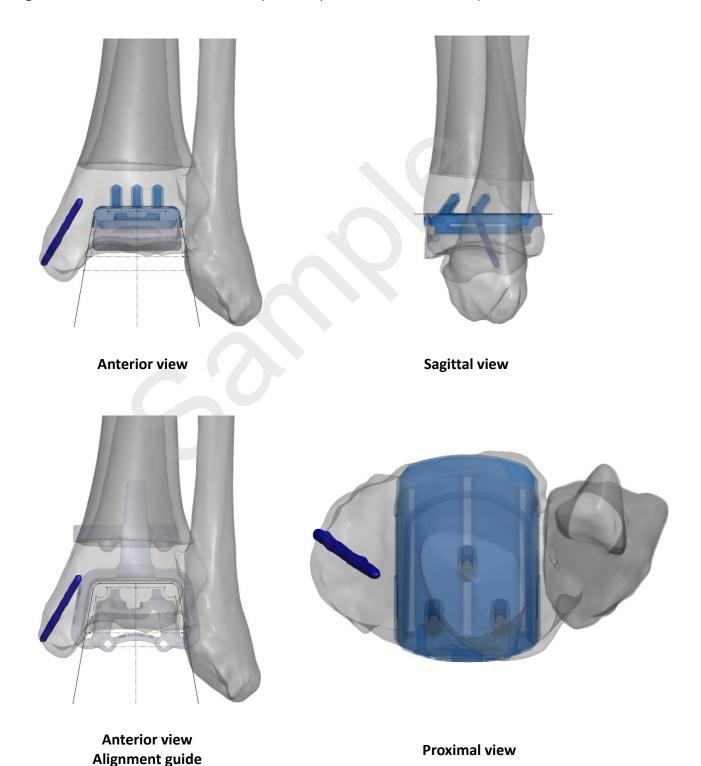




### CASE#### - APPENDIX: Hardware proximal to the joint line

Hardware exists as shown below. The interference between the hardware and the features of the planned TAR procedure are specified in the following information:

• The existing hardware does not interfere directly with any PROPHECY™-related aspect of this case.

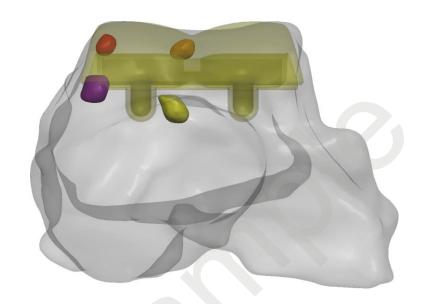






### CASE#### - APPENDIX: Talus Bone Voids

- Any bone voids near the expected location of the implant are shown below.
- For surgically relevant open bone voids that are not intrinsic to the stability of the bony structure during your Total Ankle Replacement procedure, consider using PRO-DENSE™ Injectable Regenerative Graft.
- Please refer to the patient's CT scan for more details.



Anterior view of talus with implant.



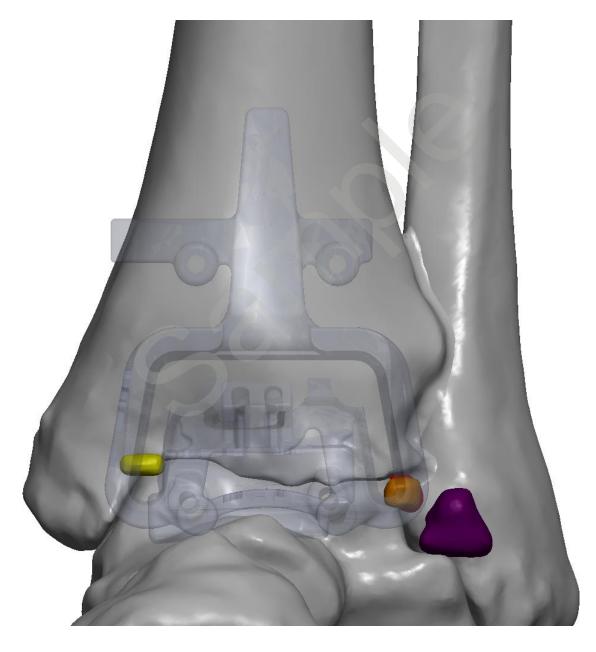
Lateral view of talus with implant.





## **CASECASE#### - APPENDIX: Osteophyte Appendix**

Any loose body osteophytes shown below that interfere with the alignment guides will need to be removed prior to placing the guides.



Tibia alignment guide at tibia-talus joint line relative to any osteophyte(s). Anterior view

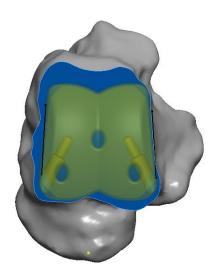


## Surgical Planning

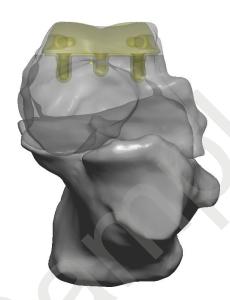
## CASECASE#### - APPENDIX: Alternative talus implant type

As an alternative, the Infinity Adaptis Flat Cut talar dome is shown below. If preferred, an intraoperative step can be used to convert the Chamfered talus resection to a Flat Cut talus resection.

Sizing shown: Size 3







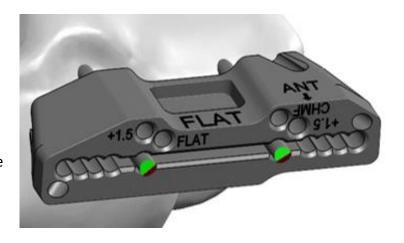
Talus Coronal View



**Talus Sagittal View** 

To convert to FLAT cut talus resection level: With the "FLAT" labeling upright, assemble the saw guide over the original talar pins with the pins coming through the resection slot. Then add pins in holes marked "FLAT" and remove the original pins to cut through the slot.

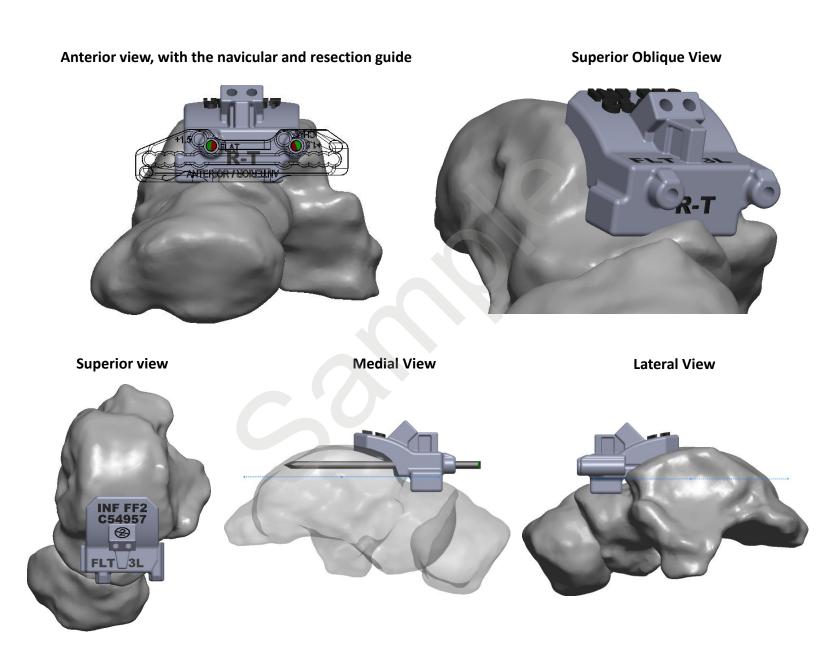
Representative image of step 1. Assemble saw guide over pins at cut-slot level (image does not reflect patient anatomy)





#### CASE###### - APPENDIX: Alternative Talus Guide

•The following images of the alternative talus guide according to alternative talus implant type are shown below.



#### Alternative Talus Guide Comments:

• Talar guide designed for use with: Reversible Talus Resect Guide # 33689021 oriented with FLAT upright.





## **CASE###### - APPENDIX: Surgical Bone Models**

