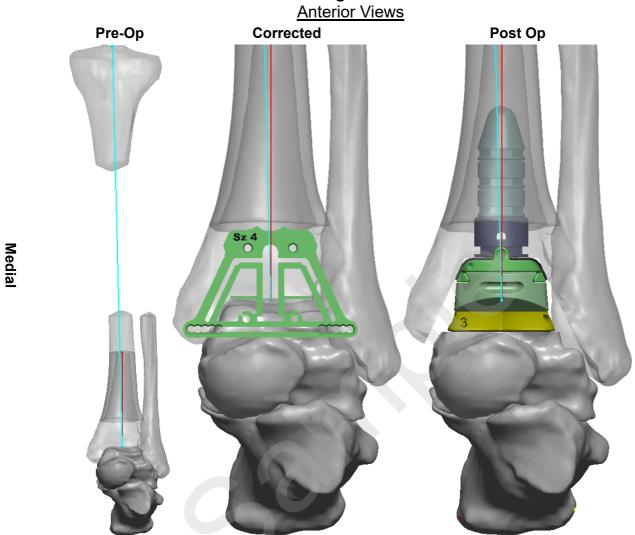
Surgical Planning

CASE#### - Surgeon: I L. Training Fancy Foot 2.0 Inbone - Left - Surgery: 05-Apr-2022

# Inbone® II Size 4 Long Tibia & Size 3 Talus



Tibia Mechanical AxisTibia Anatomic axis

Axis Angles Anatomic vs. Mechanical

Coronal = 1.4°

Tibia Implant Alignment

- Coronal Plane: Anatomic Axis
- Sagittal Plane: Anatomic Axis

Medial/Lateral placement is set:

- to Bisect gutters
- to ensure the stem implants fall within the tibial canal
- Medial malleolus at implant corner: 11.4 mm.

Notes:

N/A

Lateral



# Inbone® II Size 4 Long Tibia and Size 3 Talus Sagittal Views from Lateral Side Corrected Post Op Post Op Anterior

Tibia Mechanical Axis
Tibia Anatomic axis
Resection Planes

Axis Angles
Anatomic vs. Mechanical
Sagittal = 1.6°

## **Implant Information**

Tibial tray: Sz 4 Long (220252904) Tibial insert: Sz 3 Plus (220224310E)

Stem Components:

Top: 16 mm (200011902) Middle: 16 mm (200010902) Middle: 16 mm (200010902) Base: 18 mm (200009902)

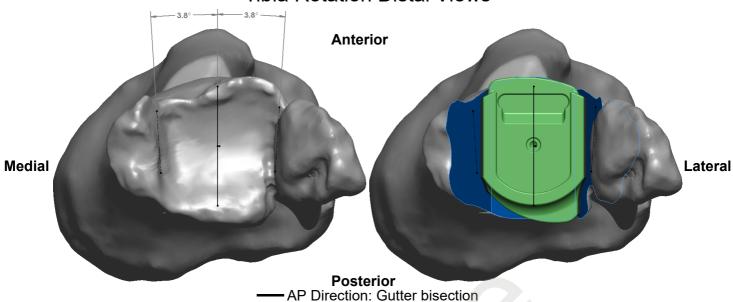
Notes: N/A Talar dome: Sz 3 (220220903)

Stem: 10 mm

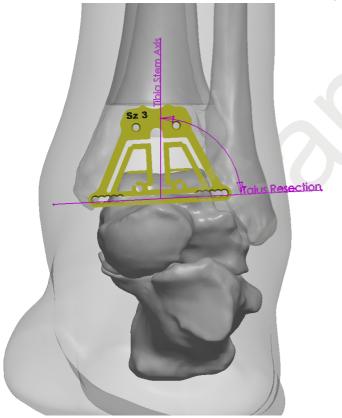
Prophecy® Part Number: PROPINB

# **Prophecy** Surgical Planning Preoperative Navigation System

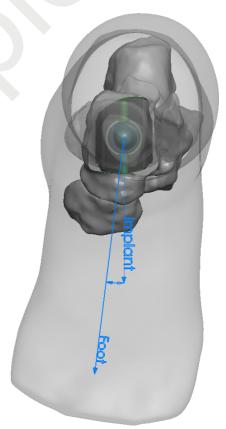
### Inbone® II Size 4 Long Tibia and Size 3 Talus Tibia Rotation Distal Views



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



Talus resection guide relative to the talar bone and the planned tibia alignment axis. The resections will result in a correction of 3.1° from valgus.



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

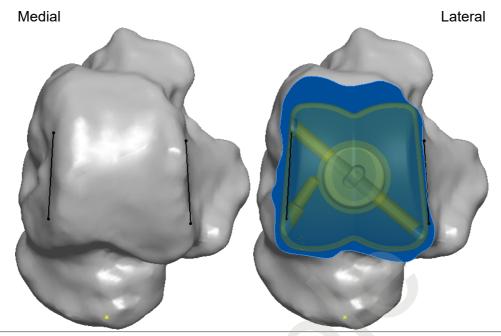
Notes:

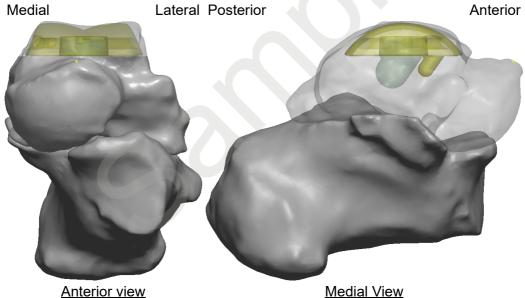
N/A



# Inbone® II Size 4 Long Tibia and Size 3 Talus 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 0.5 mm more than the thickness of the talar implant.
- The distal flat of the talar implant is 1.5 mm proximal to the yellow talar neck point shown above.
- The 10mm talar stem is within 7.5 mm of the inferior surface of the talus.



#### Summary

#### **Tibial Alignment Method**

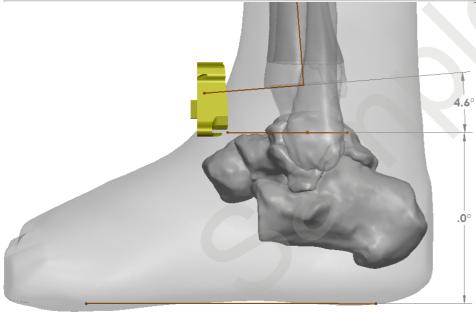
- Tibia Implant Alignment in Coronal Plane: Anatomic Axis.
- Tibia Implant Alignment in Sagittal Plane: Anatomic Axis.
- Anterior direction is set by the Gutter bisection.
- · Medial/lateral implant placement:
  - o Bisect gutters.
  - o The cuts on the medial malleolus and fibula are minimized.
  - ML 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: 0.5 mm more than the thickness of the talar implant.

#### **Prophecy Engineering Comments**

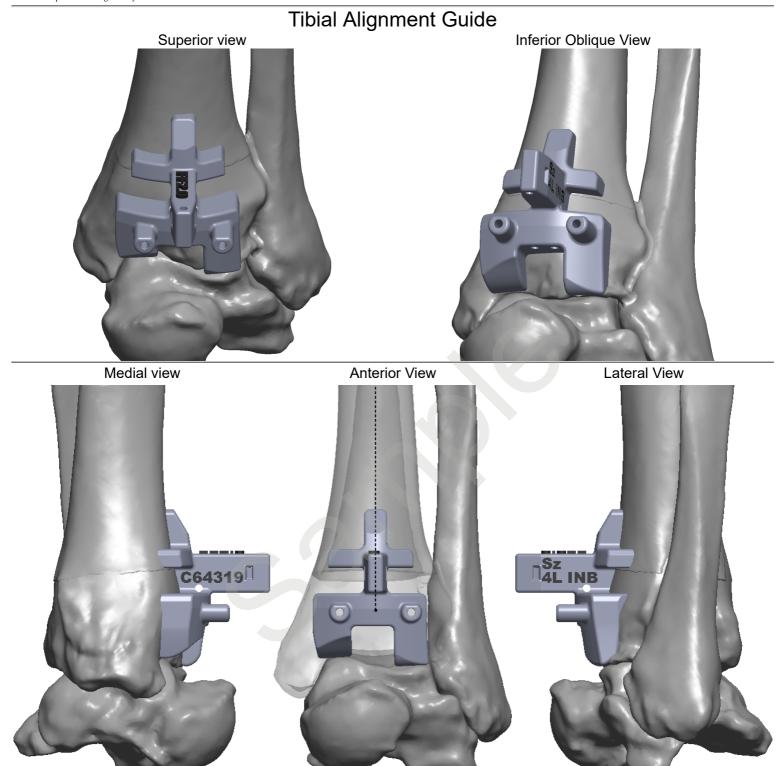
N/A



Sagittal view of pre-op talus showing:

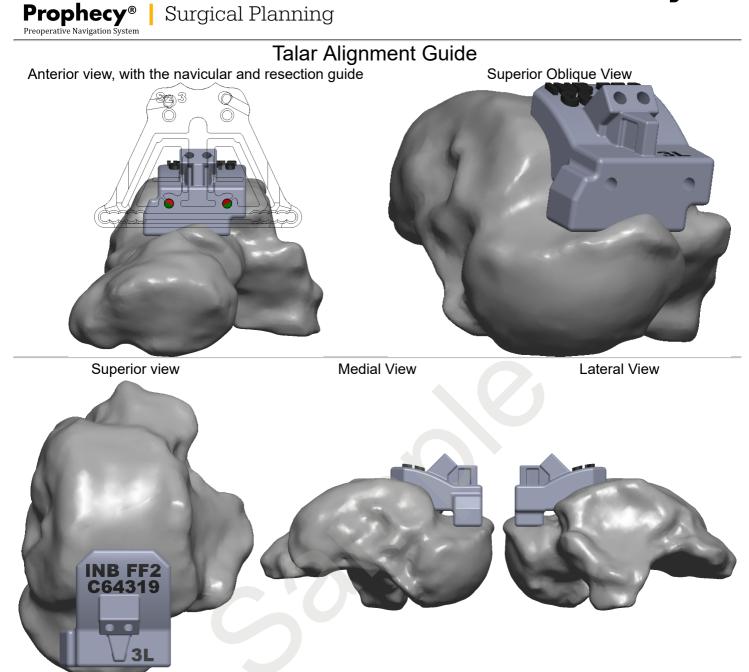
- Talus resection vs. tibia resection.
- Talus resection vs. bottom of foot line.





Tibia Guide Comments: N/A

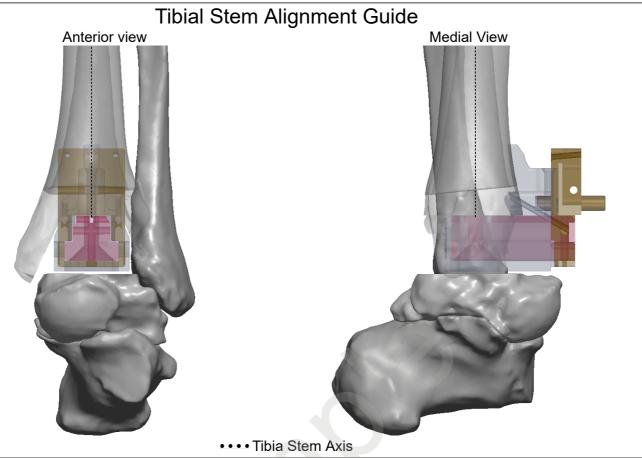
Surgical Planning



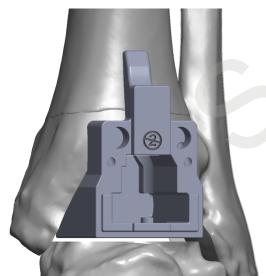
Talus Guide Comments:

• Talar guide designed for use with: size 3 resection guide.



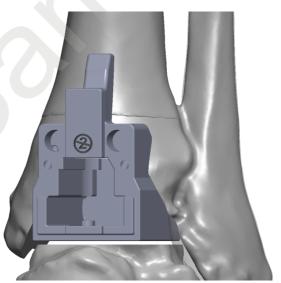


Medial Oblique view



Stem Guide Comments:

Lateral Oblique View



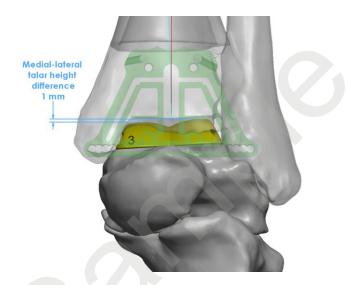
Part Identification Posterior View



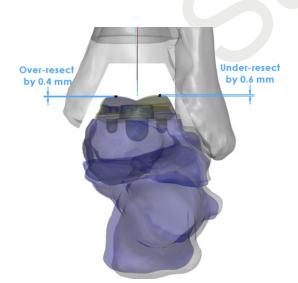


#### **CASE64319 - APPENDIX: Total Resection Height**

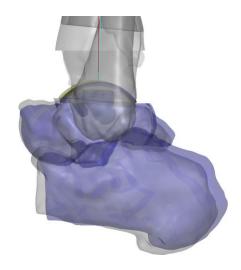
- Setting the total joint resection height is subject to coronal and sagittal deformities, unknown ligament status, and intraoperative joint balancing procedures.
- The total resection height relative to the standard implants on medial and lateral side is specified below. "Over-resecting" suggests the 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.



Pre-op medial-lateral talar height difference: 1 mm



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



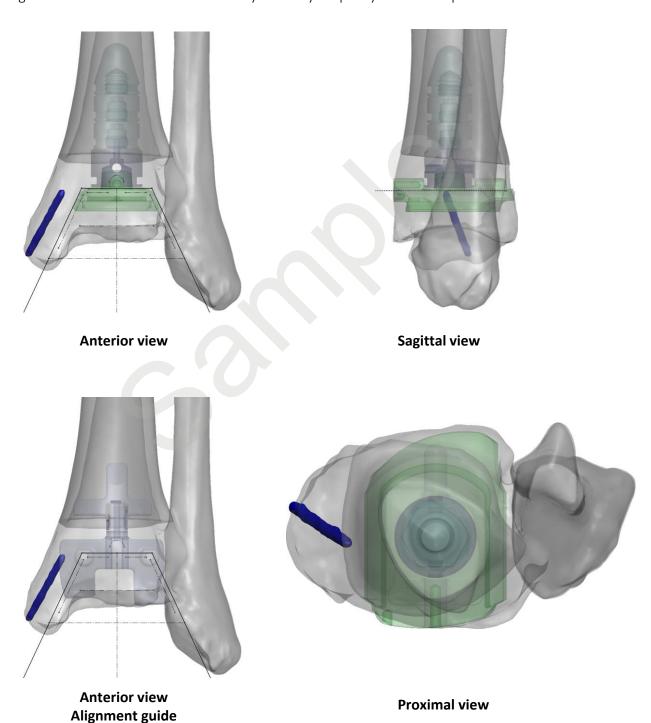
Lateral View. The "corrected" talus (highlighted) relative to the Pre-op talus (gray)



#### 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.

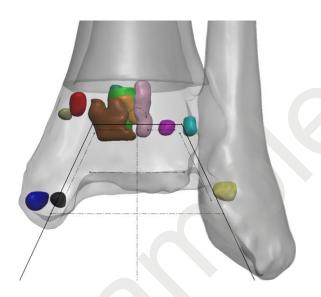




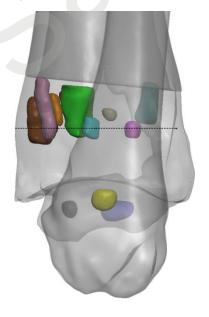


#### **CASE64319 - APPENDIX: Tibia Bone Voids**

- 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 tibia and fibula.

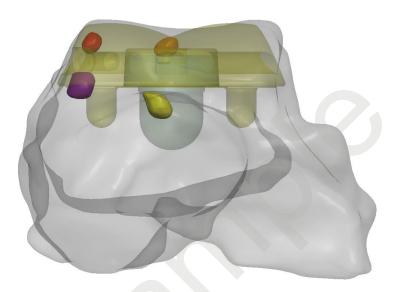


Lateral view of tibia and fibula.

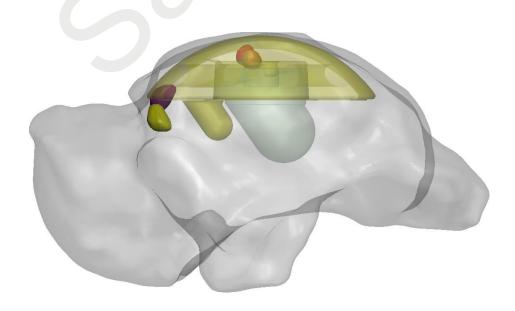


#### **CASE64319 - APPENDIX: Talus Bone Voids**

- 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.



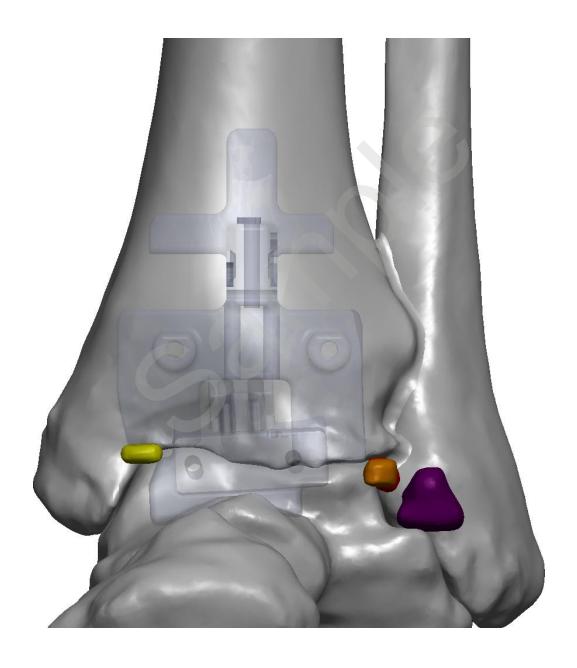
Lateral view of talus with implant.





#### **CASE64319 - 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.

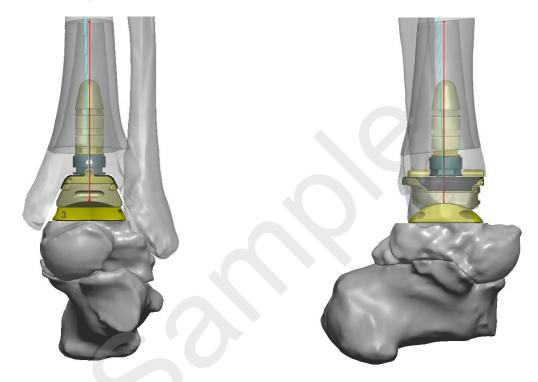


Tibia alignment guide at tibia-talus joint line relative to any osteophyte(s). Anterior view



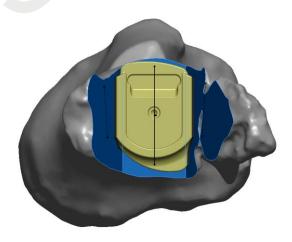
#### **CASE64319 - APPENDIX: Alternative tibia implant**

- An alternative size 3 Long tibia tray is shown below.
- Remaining medial malleolus thickness: 13.1 mm.
- A-P coverage: 1.6 mm of posterior uncovered bone.
- The report needs to be rejected in order to use the alternative size.



Alternative tibia. Anterior view

Alternative tibia. Sagittal view



Alternative tibia. Distal view





#### **CASE64319 - APPENDIX: Surgical Bone Models**

