

## **WEIGHT BEARING CT PROTOCOL**

Prophecy<sup>™</sup> Surgical Planning For Total Ankle Replacement

# stryker Protocol

"West Virginia University elected to place the LineUP in the Orthopedic Department, which makes scheduling and performing scans for patients more convenient. I am delighted I am now able to use LineUP technology in conjunction with the Prophecy<sup>TM</sup> Preoperative Navigation System.

These two cases demonstrate exceptional image quality that allowed me to appreciate compromised joint space and hindfoot alignment in three dimensions."



**Dr. Robert Santrock, MD**West Virginia University

## Case 1: Complex Deformity

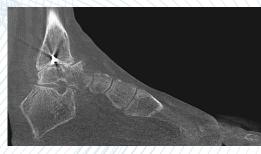


Bilateral Weight Bearing CT Coronal Plane 0.3mm slice

- 61-year-old male
- Underwent ORIF in childhood
- 28.5 degrees varus

Subtalar joint was not symptomatic. Patient wore foot brace for three years with little relief.

#### Treatment Plan



Weight Bearing CT Lateral Plane 0.3mm slice



PROPHECY™ Preoperative Plan

Prophecy<sup>™</sup> independently assessess the patient's tibia and talar anatomy and identifies optimal implant sizing. A varus deformity of 28.5° was measured in this case. The Prophecy<sup>™</sup> patient-specific alignment guides used decoupled cuts to achieve deformity correction.

### Post-Op Results



Post-Operative X-Ray



Prophecy™ Preoperative Plan

- · AP Alignment: 3 degrees
- Lateral Alignment: -0.5 degrees
- Starting with VARUS, but corrected within 3 degrees



# **WEIGHT BEARING CT PROTOCOL**

Prophecy™ Surgical Planning

For Total Ankle Replacement

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Small device foot print; self-shielded; runs off standard 115V outlet; 25 second scans.



True weight bearing position allows for concommitant deformity assessment.



CurveBeam Al's Visualization Software depicts fine trabecular detail and provides dynamic 3D renderings.



Largest field of view in its class - 20cm x 35cm -Scan up to size 20 shoe.

Prophecy<sup>™</sup> is a registered trademark of Stryker.

### Case 2: Ankle Arthritis



- 62-year-old male; involved in MVA
- Complete delamination of talar dome
- · Regional AVN of talus
- Arthritic changes on tibia on MRI

Bilateral Weight Bearing CT Coronal Plane 0.3mm slice

MRI also revealed arthritic changes on the tibia. Patient wore foot brace for two years, but pain persisted.

#### Treatment Plan



Weight Bearing CT Lateral Plane 0.3mm slice



Prophecy™ Preoperative Plan

In this case, only mild varus deformity was measured by Prophecy™. Implant sizing is selected and placement refined to optimize coverage and avoid unnecessary resection of the medial malleolus and talar neck.

#### Post-Op Results



Post-Operative X-Ray



Prophecy™ Preoperative Plan

- AP Alignment : 0.9 degrees
- Lateral Alignment : -0.9 degrees