

# APEX 3D S<sup>TM</sup> STEMMED TIBIA

Vertical  
Fixation

12 mm Tall Smooth  
Proximal Stem

1 mm x 3 mm  
Lattice Stem Base

Enhanced  
Stability



Minimally  
Disruptive  
Insertion

Press-Fit  
Fixation

1 mm Thick Tray  
Lattice

## DESIGN RATIONALE

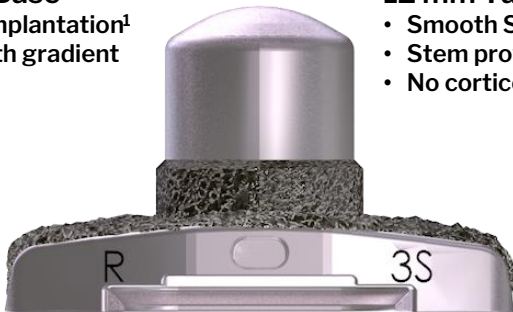
RESEARCH DRIVEN. | SOLUTION FOCUSED.

Exclusively foot & ankle  
**20**  
paragon<sup>®</sup>

# APEX 3D S<sup>TM</sup> STEMMED TIBIA

## 1 mm x 3 mm Lattice Stem Base<sup>5</sup>

- Immediate stability at time of implantation<sup>1</sup>
- 3D Printed porous structure with gradient zones down to a solid substrate



## 12 mm Tall Smooth Proximal Stem

- Smooth Stem to reduce stress shielding<sup>2</sup>
- Stem provides stability<sup>3</sup>
- No corticotomy or damage to subtalar joint<sup>6</sup>

## Available in ARC Tibia<sup>TM</sup> / Flat Tibia

- Identical to APEX 3D<sup>TM</sup>
- Left and Right Specific
- AP Lengths: Standard and Long

## 1 mm Thick Tray Lattice

- Implant base is identical to APEX 3D<sup>TM</sup>
- 0.5 mm Shoulder Press Fit Fixation<sup>4</sup>

<sup>1</sup> Johnson JE, Clark GA, de Cesar Netto C, Anderson, DD. Primary Fixation Feature Design does not Influence Total Ankle Tibial Component Stability when Implanted with Press-Fit in High Density Bone. ePoster presented at: American Orthopaedic Foot & Ankle Society Annual Meeting; September 11-14, 2024; Vancouver, British Columbia, Canada.

<sup>2</sup> Toghler CJ, Thompson JM, Perkins JM, Berlet GC, Hyer CF. A Study of Tibial Cyst Formation in Modular Stemmed Total Ankle Arthroplasty: Exploring a Possible Relationship to Smooth and Porous Coating on the Stem Segments. J Foot Ankle Surg. 2023 Sep-Oct;62(5):756-763. doi:10.1053/j.jfas.2023.04.006. Epub 2023 Apr 24. PMID: 37100341.

<sup>3</sup> Henry JK, Shaffrey I, Cororaton AD, Munita JP, Cody E, O'Malley M, Deland J, Ellis S, Demetracopoulos C. Implant Choice May Reduce the Risk of Early Mechanical Failure in Total Ankle Replacement. J Bone Joint Surg Am. 2024 May 1;106(9):767-775. doi:10.2106/JBJS.23.00933. Epub 2024 Mar 5. PMID: 38442190.

<sup>4</sup> Johnson JE, Clarke GA, de Cesar Netto C, Anderson DD. Influence of sidewall retention and interference fit in total ankle replacement on implant-bone micromotion: A finite element study. J Orthop Res. 2024 Jul;42(7):1536-1544. doi:10.1002/jor.25796. Epub 2024 Feb 7. PMID: 38327023.

<sup>5</sup> Duelfer K, Sakow C, Chang H, Boffell T. Assessment of Bone Mineral Density in the Distal Tibia Using Quantitative Hounsfield Samples From Computer Tomography. J Foot Ankle Surg. 2023 Jan-Feb;62(1):120-124. doi:10.1053/j.jfas.2022.05.009. Epub 2022 May 23. PMID: 35705456.

<sup>6</sup> Tennant JN, Rungprai C, Pizzimenti MA, Goetz J, Phisitkul P, Femino J, Amendola A. Risks to the blood supply of the talus with four methods of total ankle arthroplasty: a cadaveric injection study. J Bone Joint Surg Am. 2014 Mar 5;96(5):395-402. doi:10.2106/JBJS.M.01008. PMID: 24599201.