restor3d

MTP Hemiarthroplasty Implant

Featuring TIDAL Technology™

Addressing common challenges with 1st MTP Hemiarthroplasty, the restor3d implant system features:

- · Interconnected, porous architecture to promote maximum bone fixation
- Full resurfacing of the metatarsal head without overstuffing the joint
- · Limited bone resection with ample decompression

flexion angle Stem preserves bone while resisting clinical

loading

Articulating geometry

ensuring maximum

TIDAL Technology™ provides porous volume for bone fixation

> Head shape maximizes cortical coverage for subsidence resistance compared to other devices

Low-profile head requires minimal reaming to preserve bone without metatarsal shortening

> 0.75mm thick head avoids overstuffing the joint to preserve natural biomechanics

Plantar lip provides extended coverage for articulation with sesamoids





Multiple sizes to accomodate differences in patient anatomy.



TIDAL Technology

Backed by years of scientific research and development

restor3d's TIDAL Technology is an optimized porous architecture designed for osseointegration. Derived from sinusoidal functions, TIDAL Technology guides bone growth through the fully interconnected structure with maximized surface area.

- 100% interconnectivity and up to 65% porosity¹
- Mesoscale pores support graft retention and bony ingrowth²
- Direct bony apposition to implant surface guided by surface topography and curvature demonstrated in preclinical model^{2,3}

1. Kelly, et al. Acta Biomaterialia (2019) 94, 601-626.

2. Kelly, et al. Journal of the Mechanical Behavior of Biomedical Materials (2021) 116, 104380.

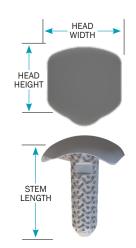
3. Kelly, et al. Biomaterials (2021) 279, 121206.



Sizing Options

MTP Implant System

SIZE	HEAD WIDTH (MM)	HEAD HEIGHT (MM)	REAMER DIAMETER (MM)	STEM LENGTH (MM)	DRILL DIAMETER (MM)
Small	14	12	18	20	
Medium	16	14	20	20	5.5
Large	16	16	22	20	-



Ordering Information – Instrumentation

MTP Instrument Kits

PRODUCT CODE	KIT NAME	CONTENTS	INSTRUMENTS		
4103-D	MTP Cannulated Drill Bit Kit	Small Trial			
		Medium Trial			
		Large Trial			
		Insertion Tool			
		Cannulated Drill Bit			
4103-G	MTP Guidewire Kit	Impactor	rostor3d		
		Guidewire (x2)			

Concave Reamers

PRODUCT CODE	DIAMETER (MM)	INSTRUMENTS
6200-18	18	1
6200-20	20	
6200-22	22	7



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1. Kelly, et al. Acta Biomaterialia (2019) 94, 601-626. 2. Kelly, et al. Journal of the Mechanical Behavior of Biomedical Materials (2021) 116, 104380. 3. Kelly, et al. Biomaterials (2021) 279, 121206.

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