

## PRESERVE™ HammerGraft™ System

The PRESERVE™ HammerGraft™ is a minimally manipulated aseptically processed allograft designed specifically for fixation of the proximal interphalangeal (PIP) joint.



### HammerGraft™ Features

#### Donor Site and Processing

- HammerGraft™ implant harvested from the cortical rim of the tibia or femur
  - Designed to meet the strength requirements of the PIP joint
- HammerGraft™ Cancellous Spacer is harvested from cancellous bone
  - Allows for more rapid incorporation while maintaining the length of the toe
- The only aseptically processed hammertoe allograft available on the market
  - Processed without gamma radiation in order to help avoid structural fatigue and crumbling
  - Hydrogen peroxide avoided during processing to help preserve the osteoinductivity of the graft

#### Shape and Sizing

- Ribs on graft in combination with the drill diameter were optimized to minimize crushing of cancellous bone during insertion and resist pullout
- Cross section of implant helps resist rotation
- Tapered design allows for a press fit during insertion
- Offered in 2.3 mm and 2.8 mm diameters
  - Straight and angled






#### Delivery and Packaging

- Packaged in hydration solution - no reconstitution necessary which may save time in the operating room
- Instrumentation available in a non-sterile configuration to eliminate waste associated with disposable kits

## Implant Offering

### PRESERVE™ HammerGraft™ Implants








Available in four different configurations

	2.3 HammerGraft™	2.3 HammerGraft™ Angled	2.8 HammerGraft™	2.8 HammerGraft™ Angled
				
Diameter	2.3 mm	2.3 mm	2.8 mm	2.8 mm
Length	19 mm	19 mm	21 mm	21 mm
Angle	0°	10°	0°	10°

## PRESERVE™ HammerGraft™ Cancellous Spacer

### PRESERVE™ HammerGraft™ Cancellous Spacer

Available in six configurations

	2.3 x 6 mm HammerGraft™ Spacer	2.3 x 8 mm HammerGraft™ Spacer	2.3 x 10 mm HammerGraft™ Spacer	2.8 x 6 mm HammerGraft™ Spacer	2.8 x 8 mm HammerGraft™ Spacer	2.8 x 10 mm HammerGraft™ Spacer
						
Diameter	2.3 mm	2.3 mm	2.3 mm	2.8 mm	2.8 mm	2.8 mm
Length	6 mm	8 mm	10 mm	6 mm	8 mm	10 mm

## PRESERVE™ HammerGraft™ Science

### Bending vs. Breaking of Trabecular Bone

Thorough Finite Element Analysis (FEA) was conducted to evaluate the influence of rib height on the graft and potential broaching which could take place to surrounding cancellous bone during insertion. During insertion surrounding cancellous bone will temporarily deform before returning to its original position as the cortical dowel passes through it.

Paragon 28 optimized the rib height and drill diameter to ensure maximum pull-out strength while minimizing any plastic deformation to surrounding cancellous bone.<sup>1</sup>

## PRESERVE™ HammerGraft™ System

### SYSTEM SPECIFIC INSTRUMENTATION

All of the system instrumentation is cannulated to accommodate either a trocar or a guide wire.



Drill



Trocar



Guidewire



Assembly: Trocar with Drill

- Allows the surgeon during drilling to utilize either a solid drilling technique with the trocar to eliminate skiving or a more traditional retrograde technique with the drill passing over the guide wire

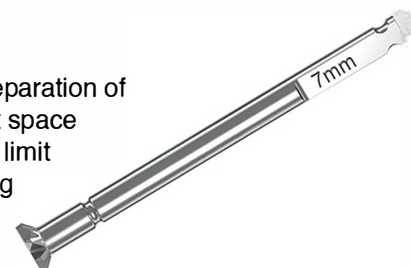
### Insertor

- Intended to control the depth to which the implant will be placed
- Press release mechanism which frees the implant from the inserter at the appropriate depth
- May be reprocessed reducing waste associated with each case



### Planer

- Fluted tip to aid in preparation of either side of the joint space
- Trocar insert helps to limit skiving during reaming



HGRF-01 RevB

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References:

<sup>1</sup> Test Report 17011701