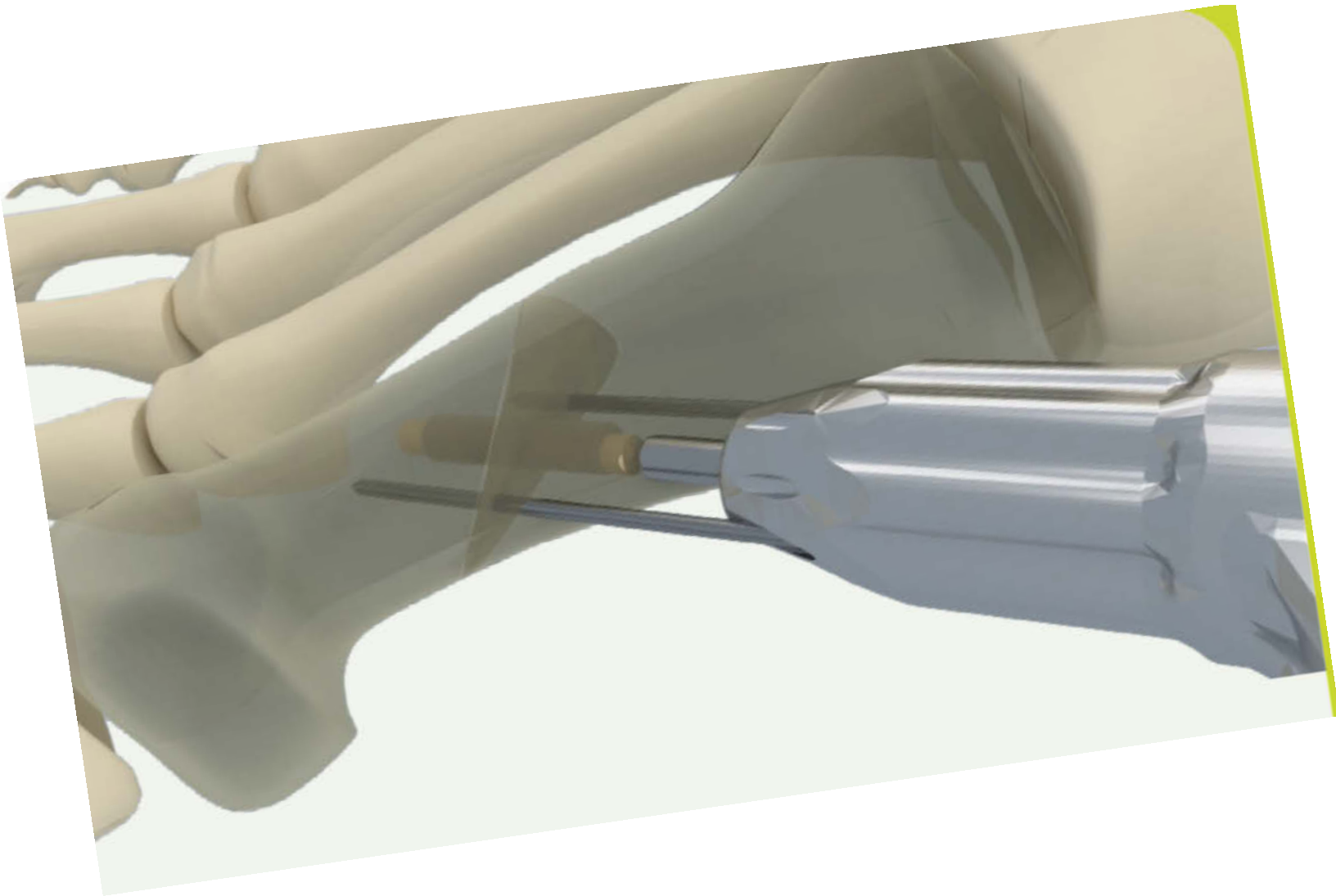
AlloMate™

BONE PIN SYSTEM

Surgical Technique



JUST BONE®

Orthopedic Solutions, LLC

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Single-Use. Sterile Packed

AlloMate Bone Pins are precision-machined from sterilized human cortical bone. They are 45mm in length and able to be trimmed to the specific length required for each patient. AlloMate Bone Pins are available in a range of five diameters (2.0mm, 2.5mm, 3.0mm, 3.5mm and 4.0mm). Allograft bone can be used in bone grafting procedures in combination with autologous bone or other forms of allograft bone, or it can be used by itself as a bone graft.

The AlloMate Bone Pin Instrument System is used to facilitate implantation of bone pins in pediatric and adult orthopedic and reconstructive procedures used for maintenance of alignment and fixation of bone fractures, osteotomies, arthrodesis, or bone grafts in the presence of appropriate additional immobilization (e.g., cast, brace). AlloMate Bone Pin instrumentation is single-use and sterile packaged, eliminating the need for set reprocessing while potentially reducing infection risks and improving hospital efficiencies[1,2]. Complete procedure kits are designed to avoid delays or cancellations attributed to missing or damaged components. Readily available for immediate use, individual kits deliver sharp and pristine instruments --new for each procedure.

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AlloMate™
BONE PIN SYSTEM

System Components

2.0mm ALLOMATE INSTRUMENT SYSTEM

1. 2.0mm Cortical Bone Inserter
2. 2.0mm Graduated Pin Reamer (3)
3. 1.25mm K-wire (4)
4. 2.0mm Tamp
5. AlloMate Cutting Block

2.5mm ALLOMATE INSTRUMENT SYSTEM

1. 2.5mm Cortical Bone Inserter
2. 2.6mm Graduated Pin Reamer (3)
3. 1.25mm K-wire (4)
4. 2.5mm Tamp
5. AlloMate Cutting Block

3.0mm ALLOMATE INSTRUMENT SYSTEM

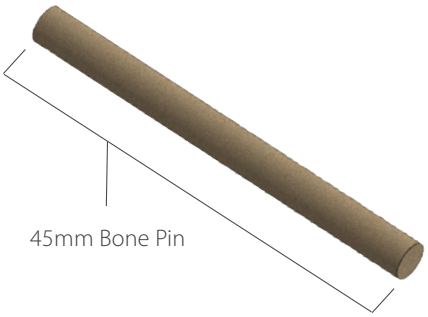
1. 3.0mm Cortical Bone Inserter
2. 3.1mm Graduated Pin Reamer (3)
3. 1.25mm K-wire (4)
4. 3.0mm Tamp
5. AlloMate Cutting Block

3.5mm ALLOMATE INSTRUMENT SYSTEM

1. 3.5mm Cortical Bone Inserter
2. 3.6mm Graduated Pin Reamer (3)
3. 1.25mm K-wire (4)
4. 3.5mm Tamp
5. AlloMate Cutting Block

4.0mm ALLOMATE INSTRUMENT SYSTEM

1. 4.0mm Cortical Bone Inserter
2. 4.1mm Graduated Pin Reamer (3)
3. 1.25mm K-wire (4)
4. 4.0mm Tamp
5. AlloMate Cutting Block



PIN DIAMETERS

- **2.0mm**
- **2.5mm**
- **3.0mm**
- **3.5mm**
- **4.0mm**

Pins are not included in instrument kits

SURGICAL TECHNIQUE

1. Place the AlloMate Bone Pin in sterile saline for at least 15 minutes prior to insertion. (**Fig. 1**)

Fig. 1

2. Reduce the fracture/osteotomy with or without the use of a bone clamp. Stabilize and secure the fracture/osteotomy site by placing a 1.25mm K-wire through the bone fragments. (**Fig. 2**)

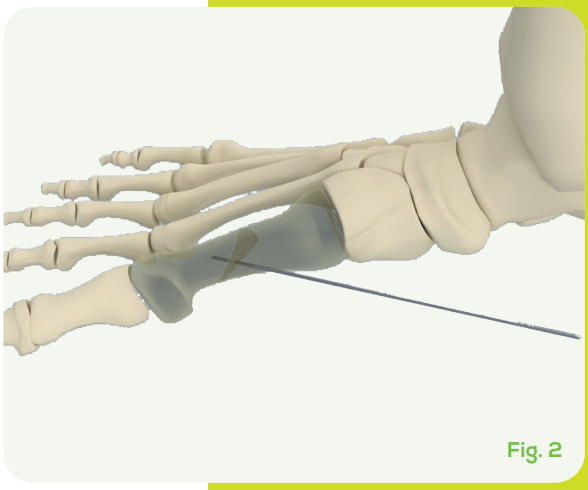


Fig. 2

3. Slide the Cortical Bone Inserter over the K-wire and rotate the Inserter in order to place the handle in a desirable position. (**Fig. 3**)

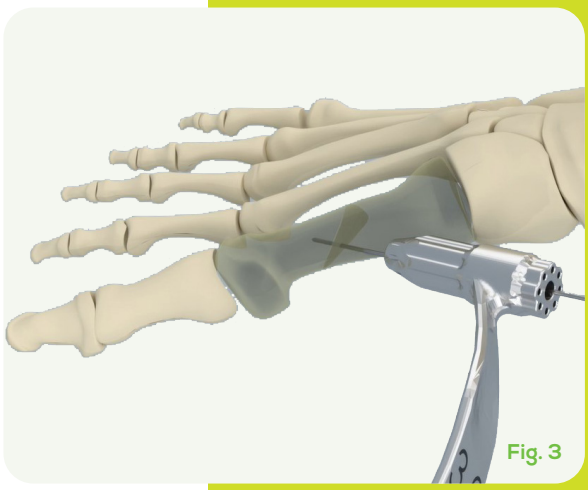


Fig. 3

SURGICAL TECHNIQUE, CONT

4. Fix the Cortical Bone Inserter in-place by placing up to three additional 1.25mm K-wires through any of the perimeter holes on the Inserter. (**Fig. 4**)

Fig. 4

5. With the Cortical Bone Inserter fixed in-place, insert the Graduated Pin Reamer through the central hole on the Inserter to ream a canal for the AlloMate Bone Pin. (**Fig. 5**)

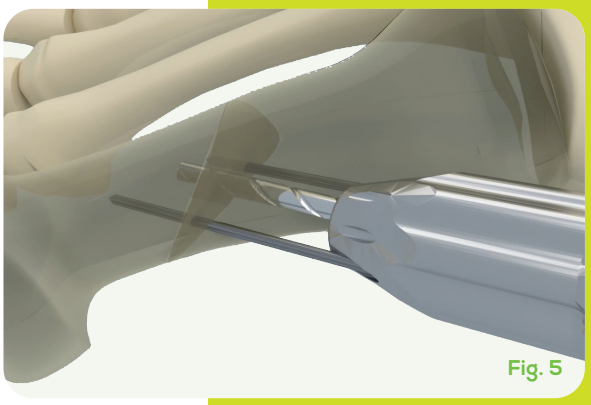


Fig. 5

6. Fluoroscopy is then utilized to confirm the Graduated Pin Reamer depth. The final length for the AlloMate Bone Pin is referenced off the proximal end of the Pin Reamer.

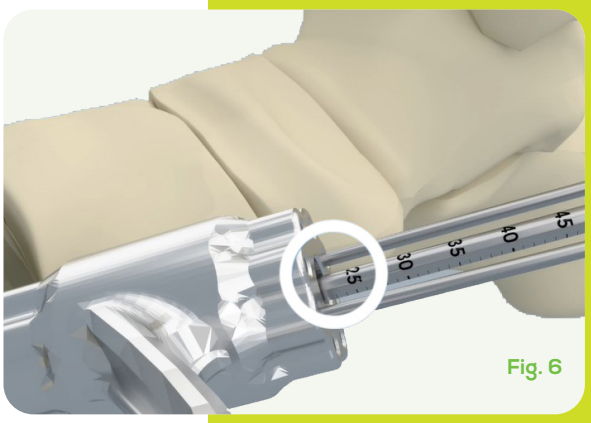


Fig. 6

SURGICAL TECHNIQUE, CONT

7. The AlloMate Bone Pin is to be cut to the appropriate length using a power saw. Use the Measurement Cutting Device as a guide to cut the AlloMate Bone Pin to the length determined in step #6. The Tamp may be used to hold the AlloMate Bone Pin during cutting. (**Fig. 7**)

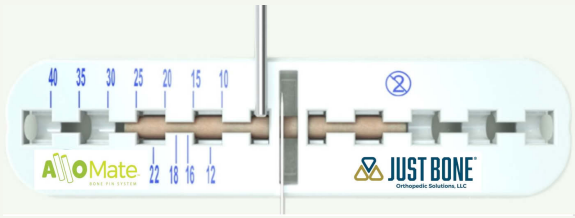


Fig. 7

8. Insert the AlloMate Bone Pin through the central hole of the Cortical Bone Inserter. Then insert the Tamp into the central hole of the Inserter. By hand or with light taps of a mallet advance the AlloMate Bone Pin into the pre-reamed hole using the Tamp. (**Fig. 8**)

   Note: The AlloMate Bone Pin typically sits flush with the cortical surface of the bone.

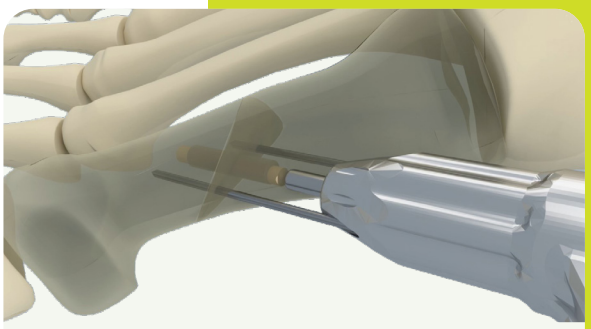


Fig. 8

9. Depending on the repair, multiple AlloMate Bone Pins may be needed. If using the remaining uncut length from the first bone pin remove all but one of the 1.25mm K-wires and rotate the inserter to the new desired location and repeat steps # 5-8. If an AlloMate Bone Pin of a different size is required repeat steps #1-8 with the instrumentation corresponding to the new bone pin size.(**Fig. 9**)

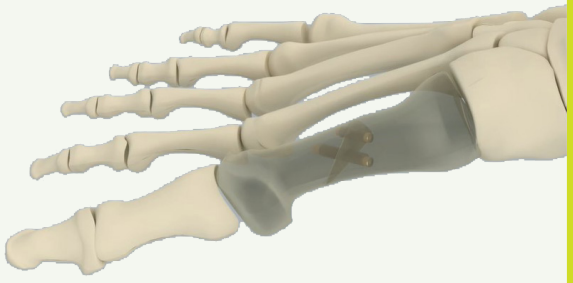


Fig. 9

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[1] Apurva Shah, MD, MBA. The Value Proposition of Single-Use Sterile Procedure Kits. May 2021

[2] Siegel GW, Patel NN, Milshteyn MA, Buzas D, Lombardo DJ, Morawa LG. Cost Analysis and Surgical Site Infection Rates in Total Knee Arthroplasty Comparing Traditional vs. Single-Use Instrumentation. The Journal of Arthroplasty, Volume30, Issue 12, P2271-2274, December 01, 2015

The AlloMate Bone Pin System is only available as single-use, sterile packed kits. Always confirm product expiration date prior to use bone pins manufactured for Just Bone Othopedic Solutions, LLC.

Caution: Federal law restricts this device to sale by or on the order of a physician.

For product information, including indications, contraindications, warnings, precautions and potential adverse effects, visit WishBone Medical's Instructions for Use page online: **www.justboneimplants.com/IFU.**