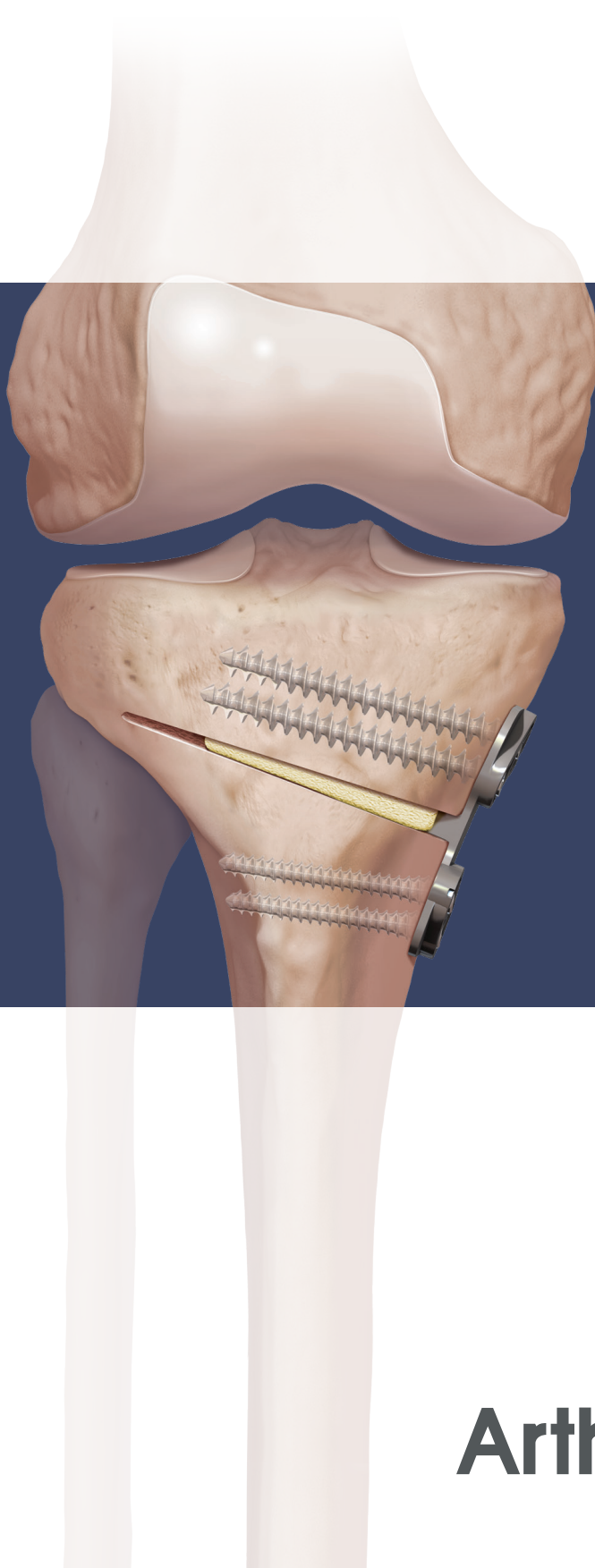
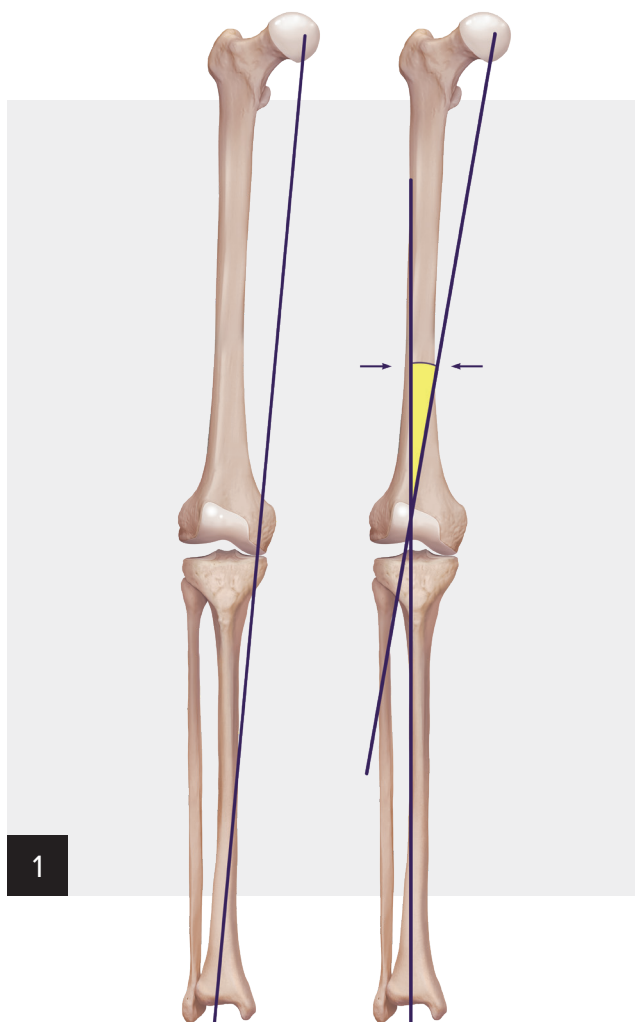


# Tibial Opening Wedge Osteotomy System

With Titanium Plates and Screws and  
OSferion  $\beta$ -TCP Osteotomy Wedge  
Surgical Technique



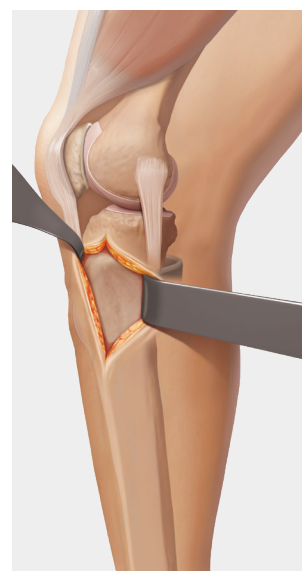
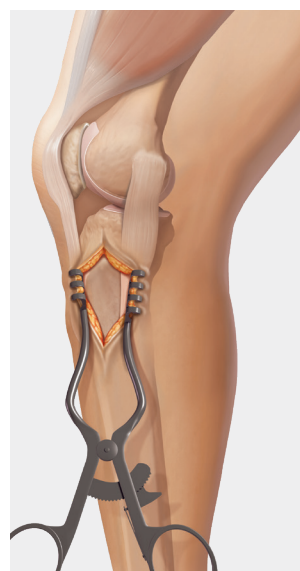
**Arthrex**® 



## Tibial Opening Wedge Osteotomy System

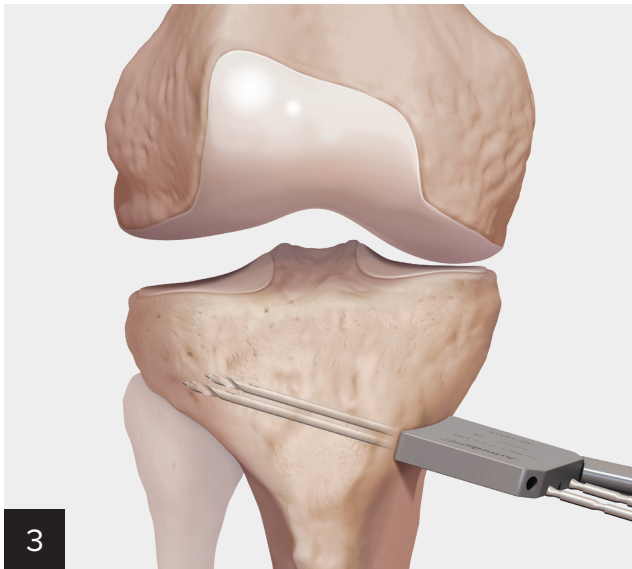
Using the full-length, standing A/P radiograph, draw a line from the center of the femoral head to the center of the tibial-talar joint. This demonstrates the patient's mechanical axis. Draw another line from the center of the femoral head to a point midway\* in the lateral knee joint. Draw a final line from the center of the tibial-talar joint to the same point in the lateral knee joint. The angle formed by the intersection of these two lines determines the degree of correction required to return the patient's mechanical axis to the point of intersection on the lateral side. Prior to final fixation, the alignment will be verified by external examination and fluoroscopy.

\*This point is located at 62.5% of the width of the proximal tibia (ie, 80 mm [width of proximal tibia]  $\times$  0.625 = 50 mm).

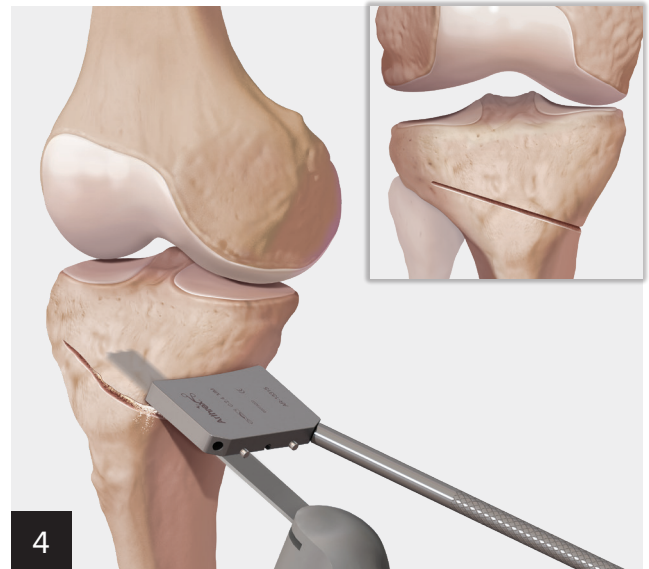


Soak the OSferion wedge in autologous blood or plasma products prior to implantation.

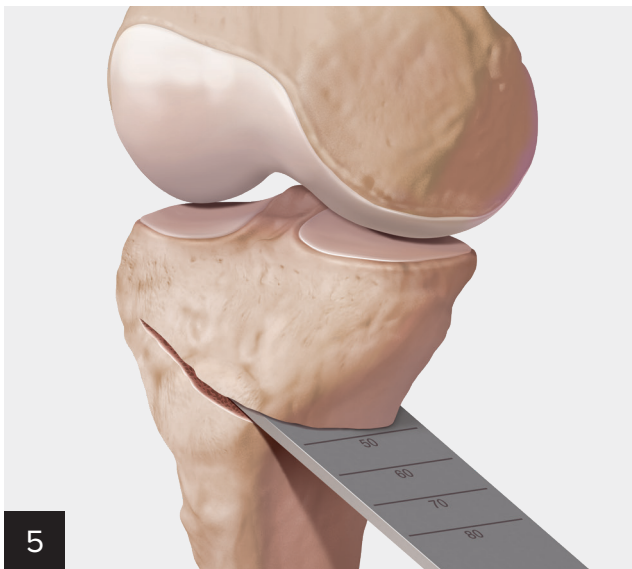
Make an incision between the MCL and the patellar tendon and the soft tissue is reflected down to the region of the superficial MCL.



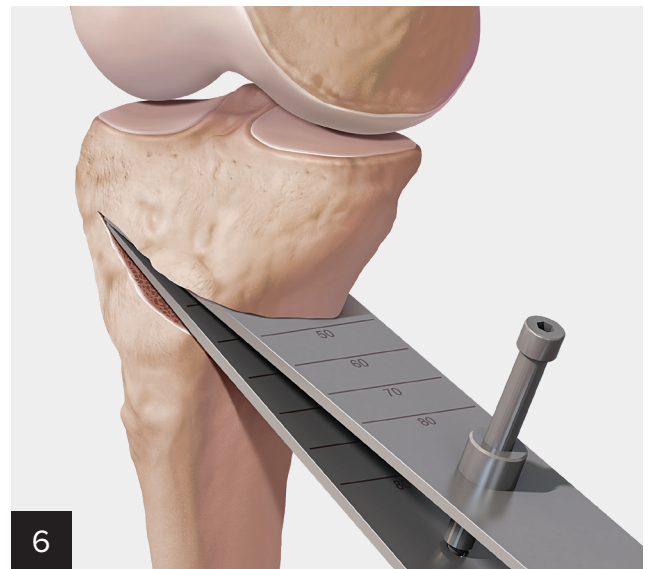
After reflecting back the superficial portion of the MCL, position the cutting guide for HTO at the medial tibia above the level of the tibial tubercle. Drill two osteotomy guide pins through the guide to within 1 cm of the lateral cortex (angled towards the fibular head).



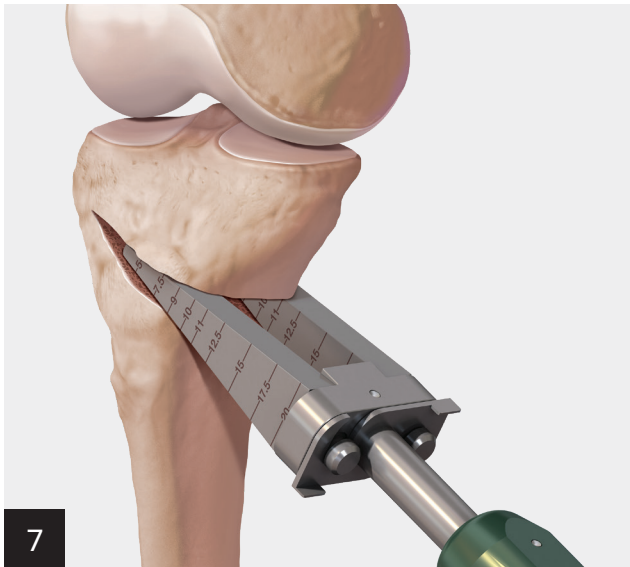
Use an oscillating saw positioned against the inferior surface of the cutting guide to cut the tibial cortex medially, anteriorly, and posteriorly.



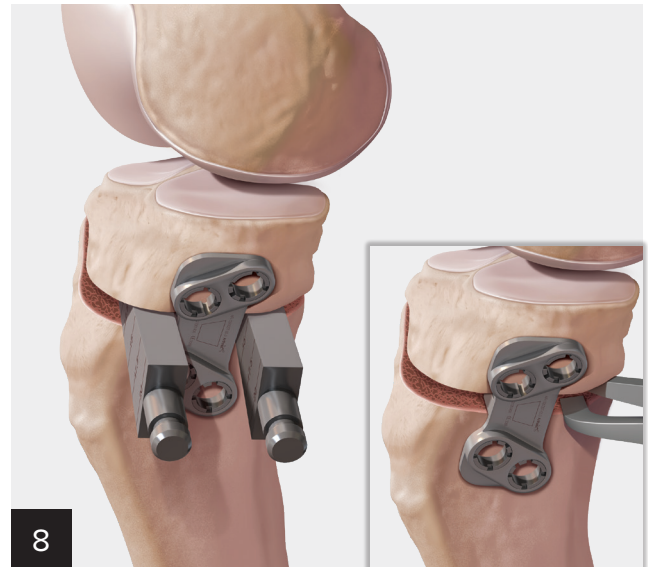
A single blade from the osteotome jack may be used to complete the osteotomy. Fluoroscopic confirmation should be checked repeatedly throughout the cutting process.



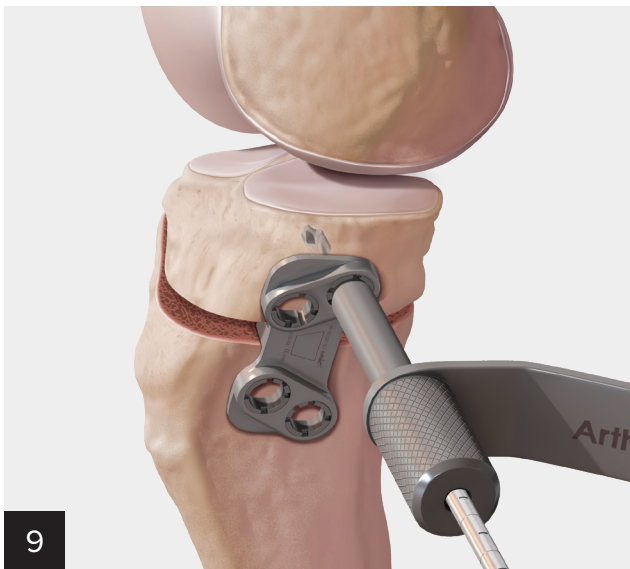
Insert both blades of the osteotome jack in the bone cut, aligning both blades to each other. Using the 3.5 mm hex screwdriver, turn the screw slowly, opening the osteotome jack to the desired correction (the wedge trial for HTO may be used to estimate the correction). Be sure to maintain the lateral tibial cortex hinge.



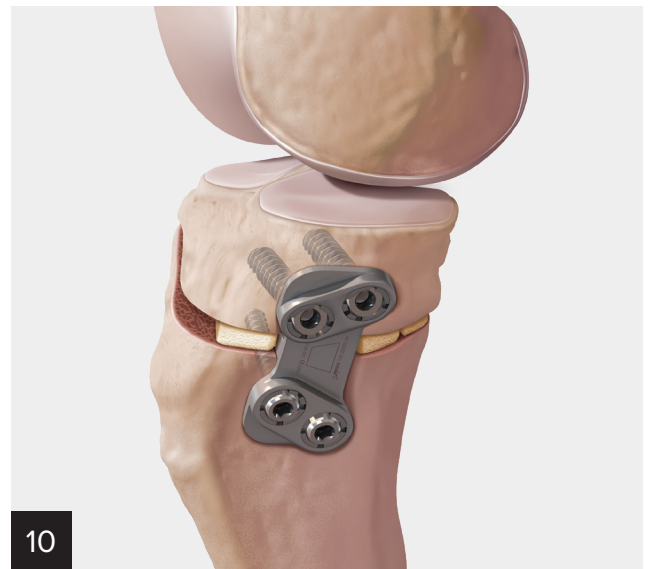
Insert the osteotomy wedge trials into the osteotomy to check the alignment of the extremity, verifying the degree of correction. The amount of opening wedge correction may be read off of the millimeter markings on each wedge tine. Once placed, remove the osteotomy wedge trial handle, leaving the wedge trials in place.



Insert the plate into the osteotomy between the wedge trials with the application bar for HTO plates. Alternately, the osteotomy can be held open with lamina spreaders while the plate is placed. Remove the wedge trials and load the extremity to close the osteotomy onto the tooth of the plate, ensuring optimum bone-to-tooth contact.

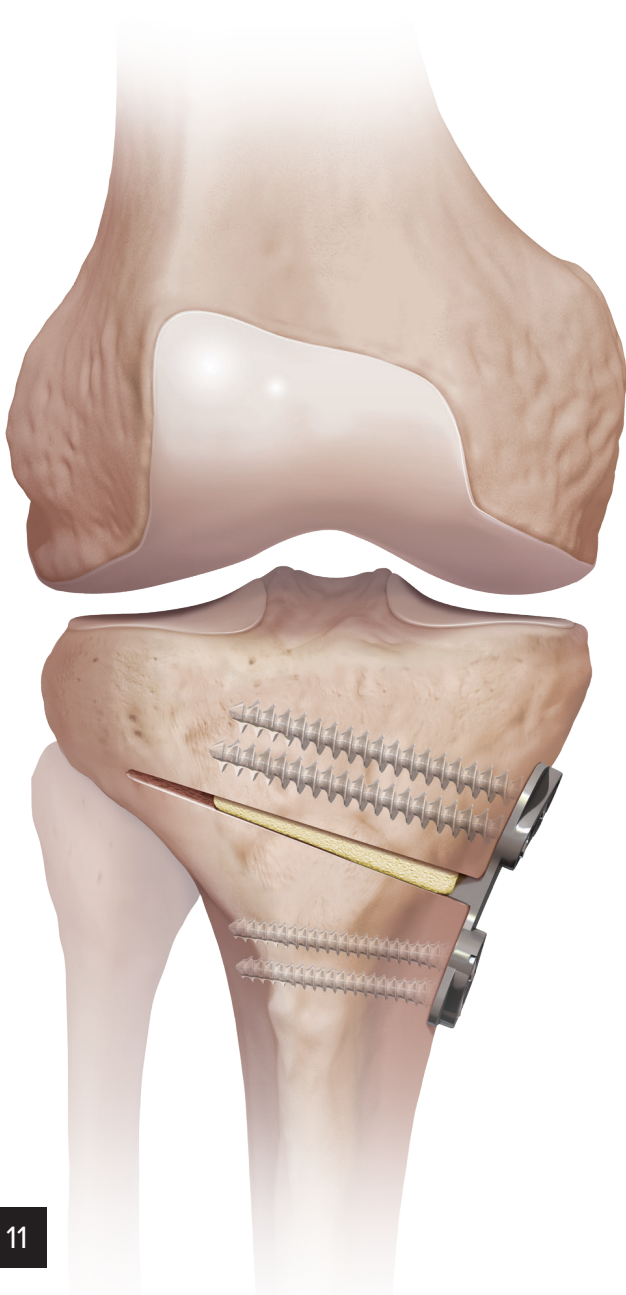


Insert the drill guide into the locking bushing and drill a hole to the appropriate screw depth (screw length is determined by visualizing the laser marks on the drill as it exits the drill guide). Install the proximal 6.5 mm cancellous screws first from posterior to anterior. The screws will lock into the bushings when fully seated.



Insert OSferion osteotomy wedges treated with ACP or autologous blood products into the osteotomy to fill the void. Load the extremity and insert the distal 4.5 mm cortical screws.





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The remainder of the osteotomy can be filled with OSferion bone void filler, Quickset™ cement, BoneSync™ putty, or AlloSync™ putty.

\*Quickset is a trademark of Graftys, S.A.

## Ordering Information

### HTO Plate Screws

Product Description	Item Number
<b>4.5 HTO Plate Screws, Titanium, Cortical</b>	
HTO Plate Screw 4.5 mm × 26 mm-60 mm Sizes: 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60 mm	AR- <b>13380-26</b> to - <b>60</b>
<b>6.5 HTO Plate Screws, Titanium, Cancellous</b>	
HTO Plate Screw 6.5 mm × 35 mm-70 mm Sizes: 35, 40, 45, 50, 55, 60, 65, 70 mm	AR- <b>13280-35</b> to - <b>70</b>

### HTO Plates

Product Description	Item Number
Tibial A/P Sloped Osteotomy Plate, 5 mm	AR- <b>13200ST-05.0</b>
Tibial A/P Sloped Osteotomy Plate, 7.5 mm	AR- <b>13200ST-07.5</b>
Tibial A/P Sloped Osteotomy Plate, 9 mm	AR- <b>13200ST-09.0</b>
Tibial A/P Sloped Osteotomy Plate, 10 mm	AR- <b>13200ST-10.0</b>
Tibial A/P Sloped Osteotomy Plate, 11 mm	AR- <b>13200ST-11.0</b>
Tibial A/P Sloped Osteotomy Plate, 12.5 mm	AR- <b>13200ST-12.5</b>
Tibial A/P Sloped Osteotomy Plate, 15 mm	AR- <b>13200ST-15.0</b>
Tibial A/P Sloped Osteotomy Plate, 17.5 mm	AR- <b>13200ST-17.5</b>
Tibial Opening Wedge Osteotomy Plate, 3 mm	AR- <b>13200T-03.0</b>
Tibial Opening Wedge Osteotomy Plate, 5 mm	AR- <b>13200T-05.0</b>
Tibial Opening Wedge Osteotomy Plate, 7.5 mm	AR- <b>13200T-07.5</b>
Tibial Opening Wedge Osteotomy Plate, 9 mm	AR- <b>13200T-09.0</b>
Tibial Opening Wedge Osteotomy Plate, 10 mm	AR- <b>13200T-10.0</b>
Tibial Opening Wedge Osteotomy Plate, 11 mm	AR- <b>13200T-11.0</b>
Tibial Opening Wedge Osteotomy Plate, 12.5 mm	AR- <b>13200T-12.5</b>
Tibial Opening Wedge Osteotomy Plate, 15 mm	AR- <b>13200T-15.0</b>
Tibial Opening Wedge Osteotomy Plate, 17.5 mm	AR- <b>13200T-17.5</b>

### Accessories

Product Description	Item Number
Patellar Tendon Retractor	AR- <b>13312</b>
Medial Retractor for HTO	AR- <b>13313</b>
Osteotomy Guide Pins, 2.4 mm, qty. 6 ("breakaway")	AR- <b>13303-2.4</b>
Osteotomy Guide Pins, 3 mm, qty. 6	AR- <b>13303-3.0</b>
Drill for HTO Titanium Screws, qty. 6	AR- <b>13319</b>
Osteotome Jack, 25 mm	AR- <b>13323-25</b>

### Bone Graft Substitute

Product Description	Item Number
OSferion Osteotomy Wedge, 7 mm × 30 mm	AR- <b>13370-1</b>
OSferion Osteotomy Wedge, 10 mm × 30 mm	AR- <b>13370-2</b>
OSferion Osteotomy Wedge, 12 mm × 35 mm	AR- <b>13370-3</b>
OSferion Osteotomy Wedge, 15 mm × 35 mm	AR- <b>13370-4</b>

### AlloSync™ DBM Putty

Product Description	Item Number
DBM Putty, 1cc	ABS- <b>2012-01</b>
DBM Putty, 2.55 cc	ABS- <b>2012-02</b>
DBM Putty, 5 cc	ABS- <b>2012-05</b>
DBM Putty, 10 cc	ABS- <b>2012-10</b>

### BoneSync™ Putty

Product Description	Item Number
Putty, 2.5 cc	ABS- <b>3202</b>
Putty, 5 cc	ABS- <b>3205</b>
Putty, 10 cc	ABS- <b>3210</b>
Putty, 15 cc	ABS- <b>3215</b>

### Arthrex Quickset™ Kits

Product Description	Item Number
Kit, 5 cc	ABS- <b>3005</b>
Kit, 8 cc	ABS- <b>3008</b>
Kit, 16 cc	ABS- <b>3016</b>

Products may not be available in all markets because product availability is subject to the regulatory approvals and medical practices in individual markets. Please contact your Arthrex representative if you have questions about the availability of products in your area.





This description of technique is provided as an educational tool and clinical aid to assist properly licensed medical professionals in the usage of specific Arthrex products. As part of this professional usage, the medical professional must use their professional judgment in making any final determinations in product usage and technique. In doing so, the medical professional should rely on their own training and experience and should conduct a thorough review of pertinent medical literature and the product's directions for use. Postoperative management is patient-specific and dependent on the treating professional's assessment. Individual results will vary and not all patients will experience the same postoperative activity level or outcomes.

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