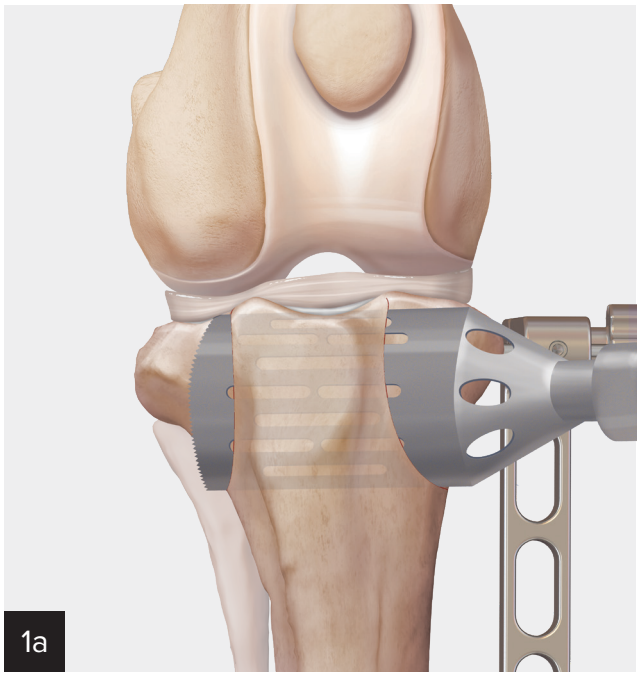
TPLO Small Plate System

Surgical Technique for Tibial Plateau Leveling Osteotomy

Arthrex®
Vet Systems



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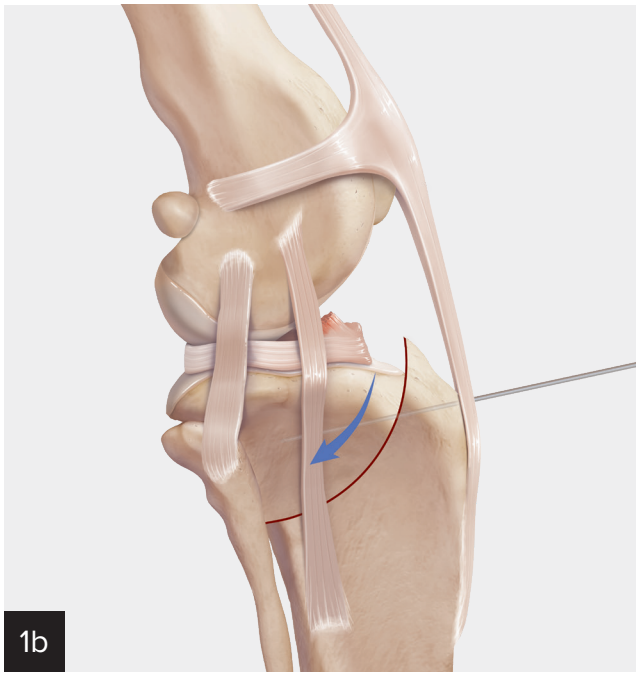
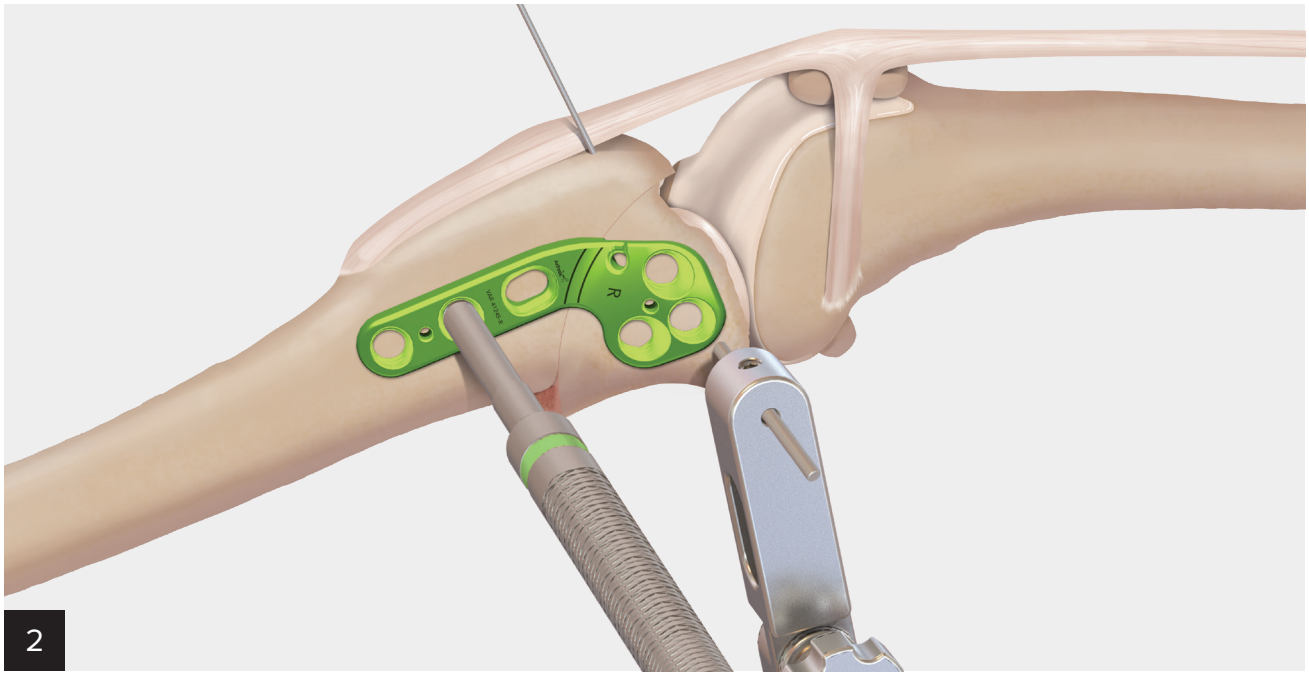


1b

Perform a tibial plateau leveling osteotomy (TPLO) with or without a standard TPLO jig and the appropriate size saw blade. Secure the osteotomy using a Kirschner wire (K-wire) placed across the tibial tuberosity.



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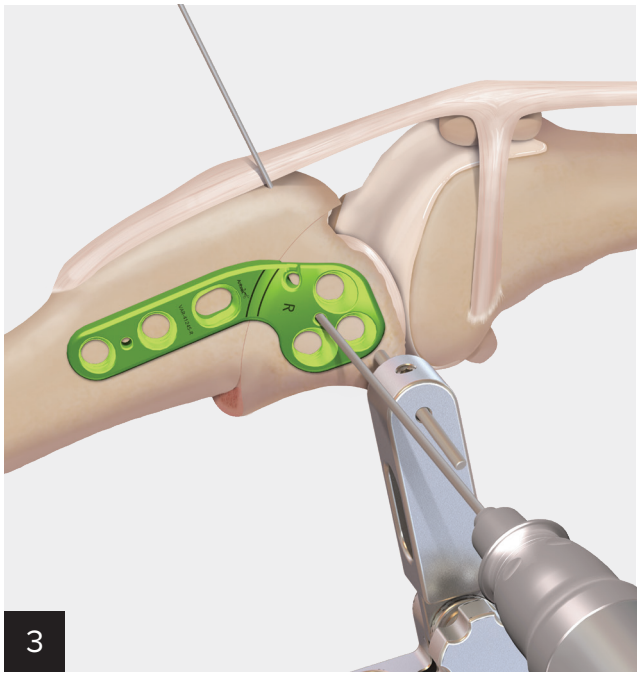
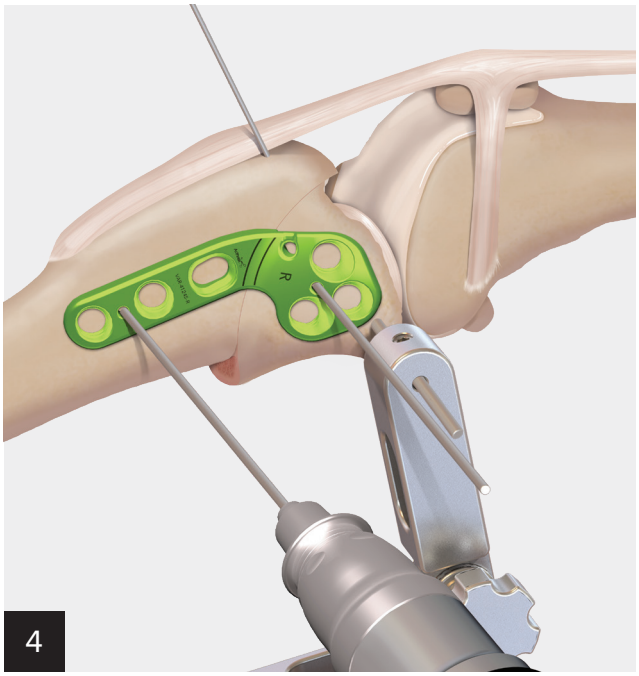
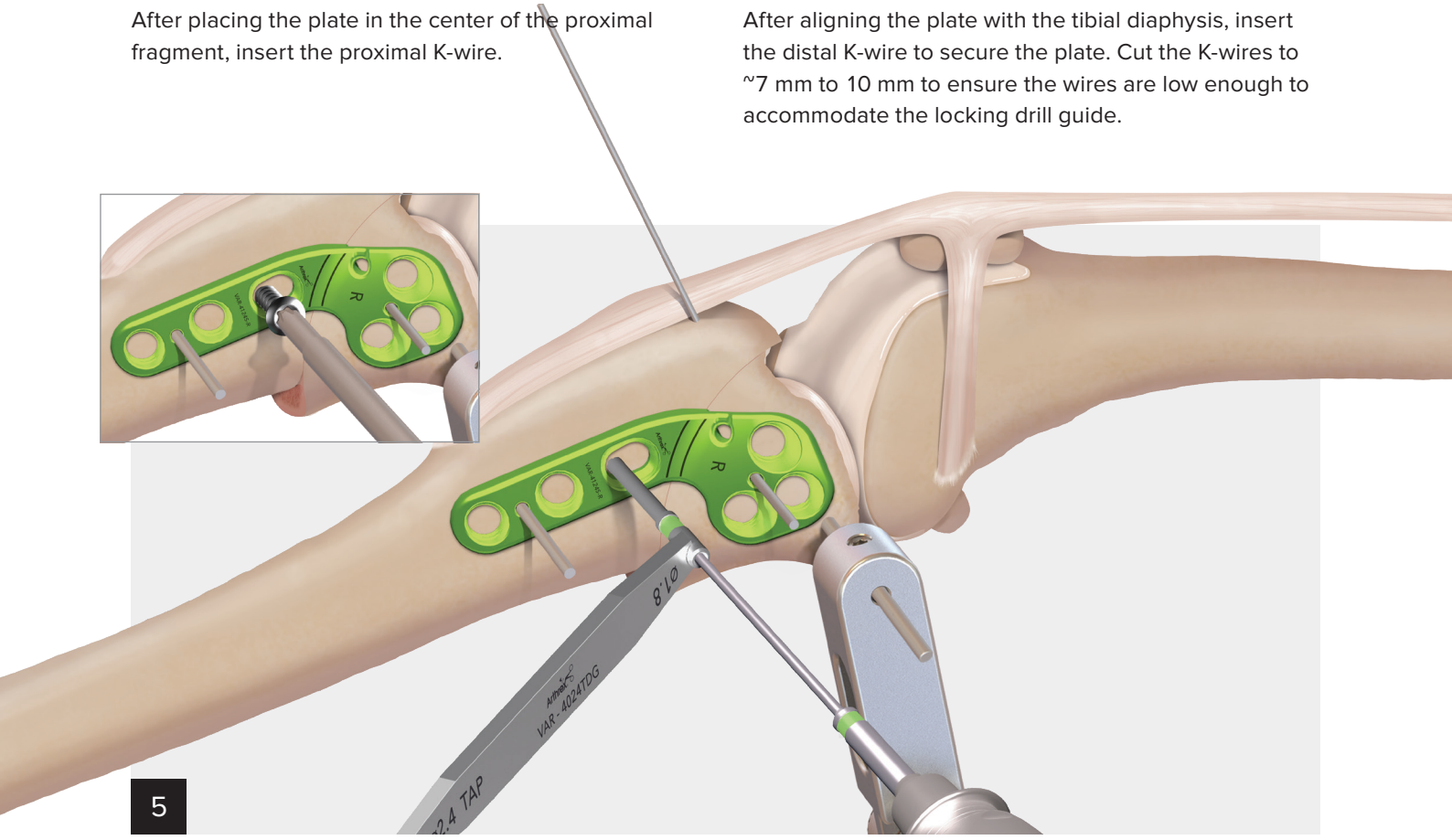
To properly align the TPLO plate, place the proximal screw holes in the center of the proximal fragment. Place the distal portion of the plate in the center of the distal fragment and align the laser lines with the osteotomy.



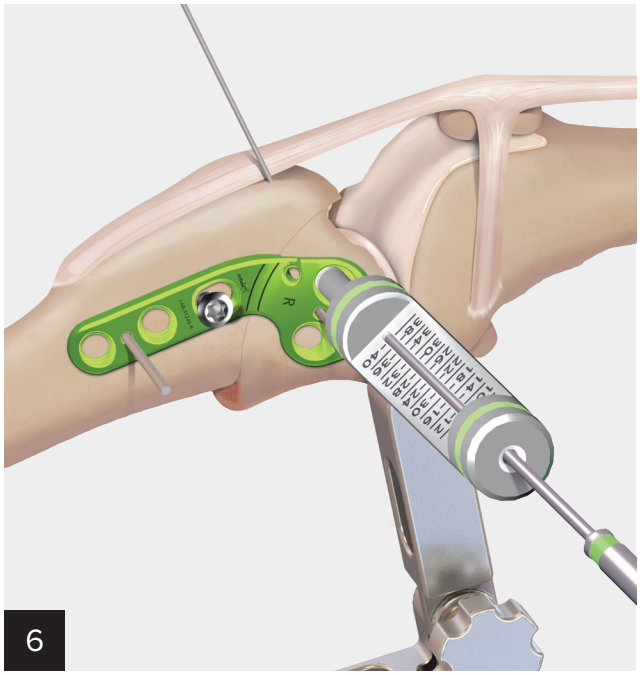
After placing the plate in the center of the proximal fragment, insert the proximal K-wire.



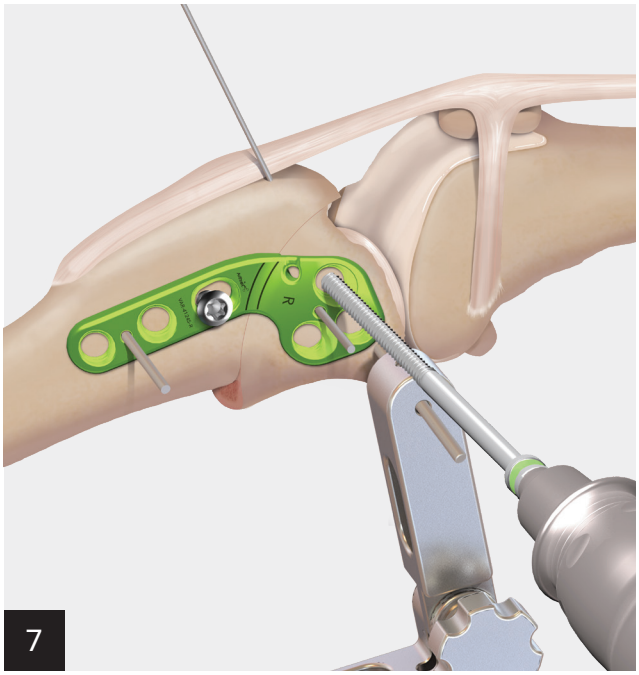
After aligning the plate with the tibial diaphysis, insert the distal K-wire to secure the plate. Cut the K-wires to ~7 mm to 10 mm to ensure the wires are low enough to accommodate the locking drill guide.



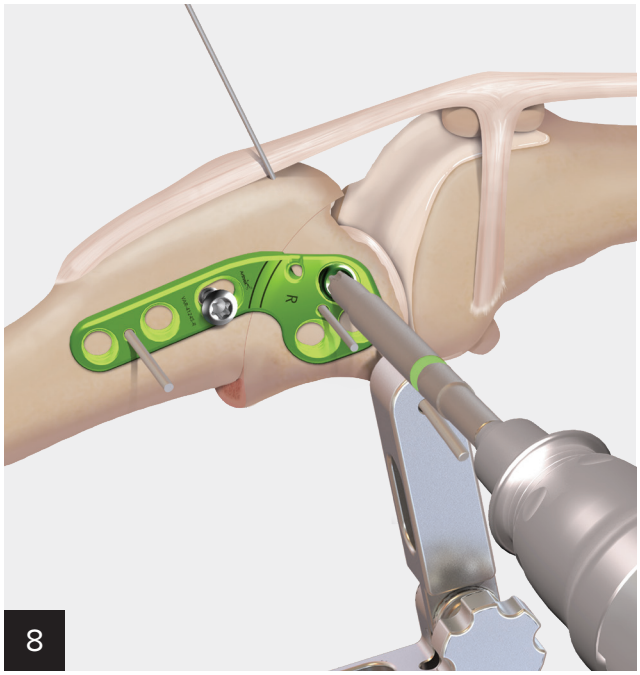
Use the appropriate size drill guide and drill bit to drill a hole in the compression position. Tap the hole using the appropriate size tap. Insert a cortical screw in compression position. This screw should be left slightly loose but in contact with the plate.



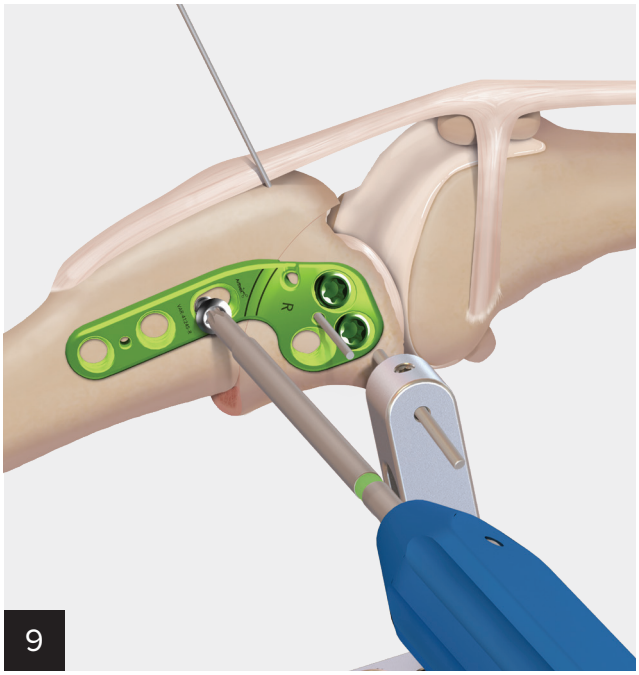
Use the locking drill guide to drill the hole and to measure its depth to the appropriate length. Use a depth gauge for a more consistent measurement.



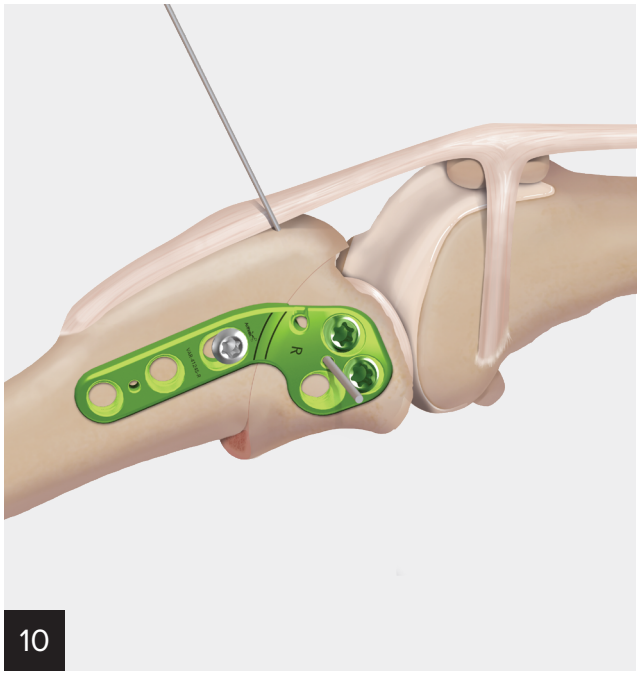
If appropriate, use the appropriate size tap to tap the hole.



Place the locking screws in the proximal fragment.



After removing the distal K-wire, tighten the compression screw by hand.



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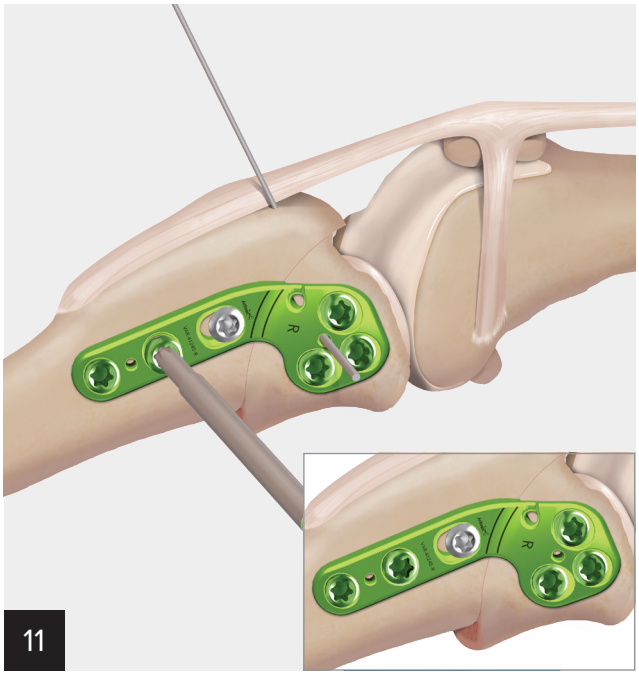
Insert the locking screws in the distal holes and final proximal hole, then remove the jig.



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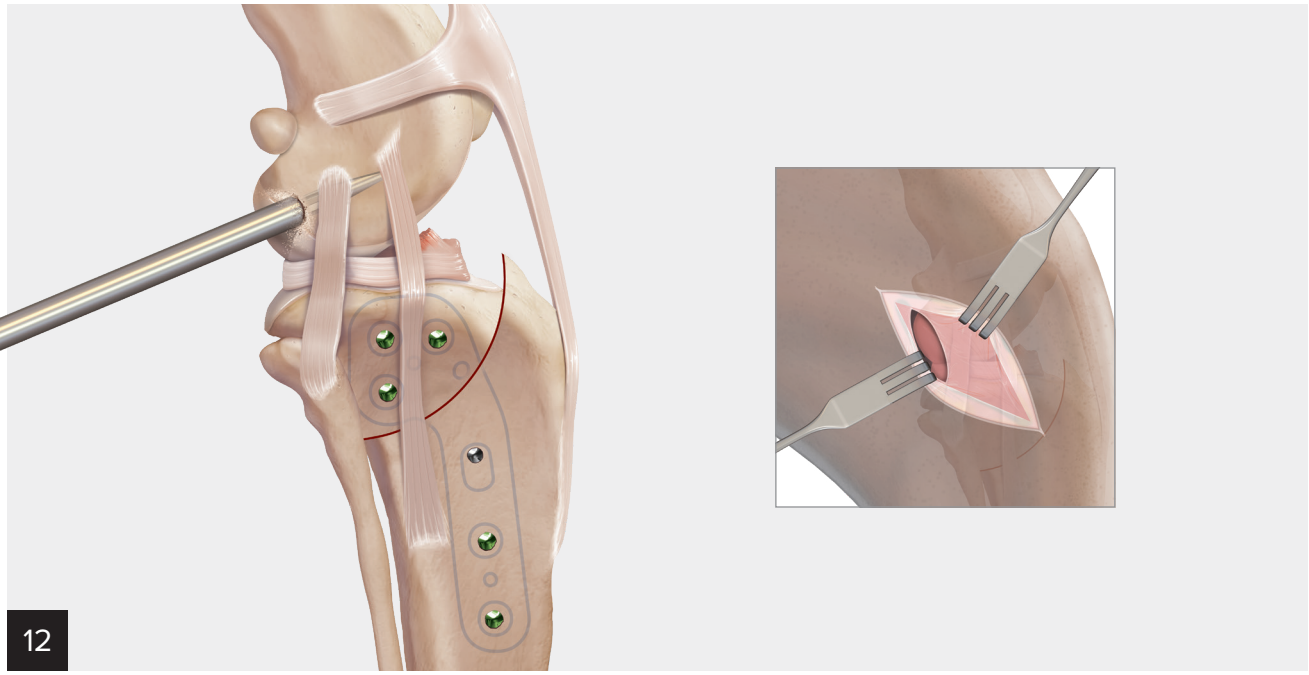
After all screws are placed, use a screwdriver to tighten each screw by hand and then remove the K-wire.



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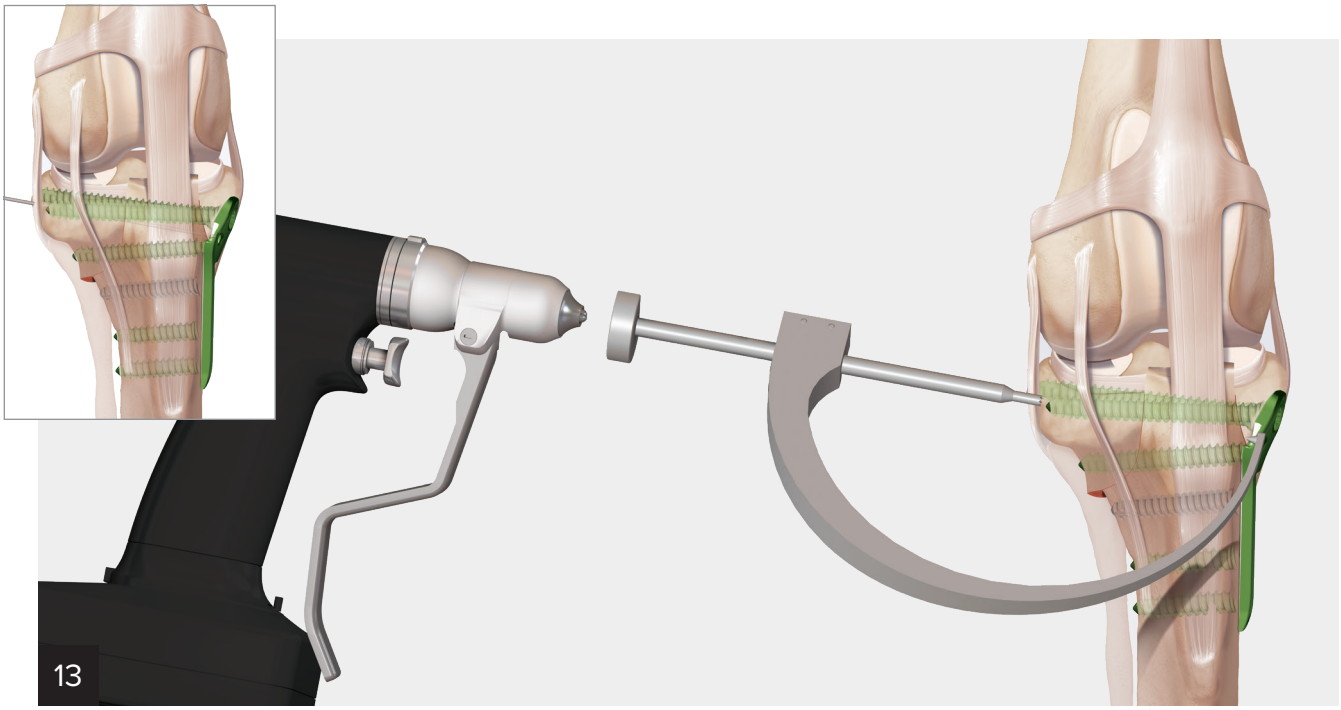
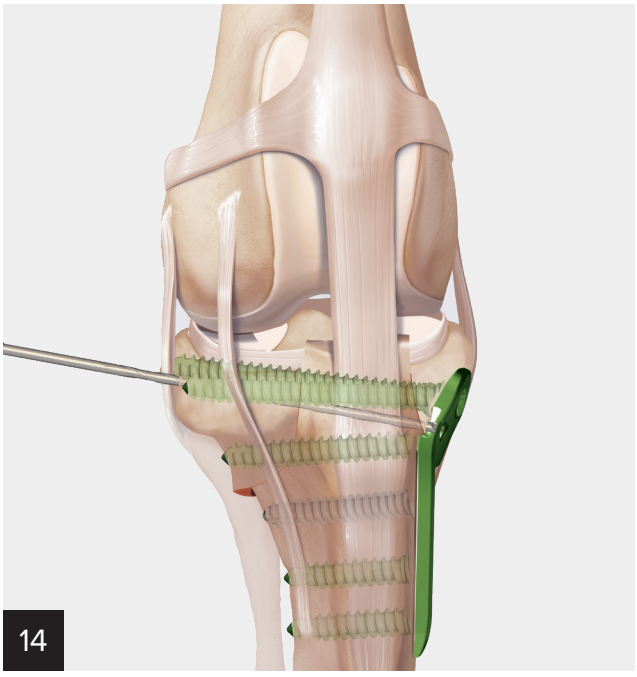
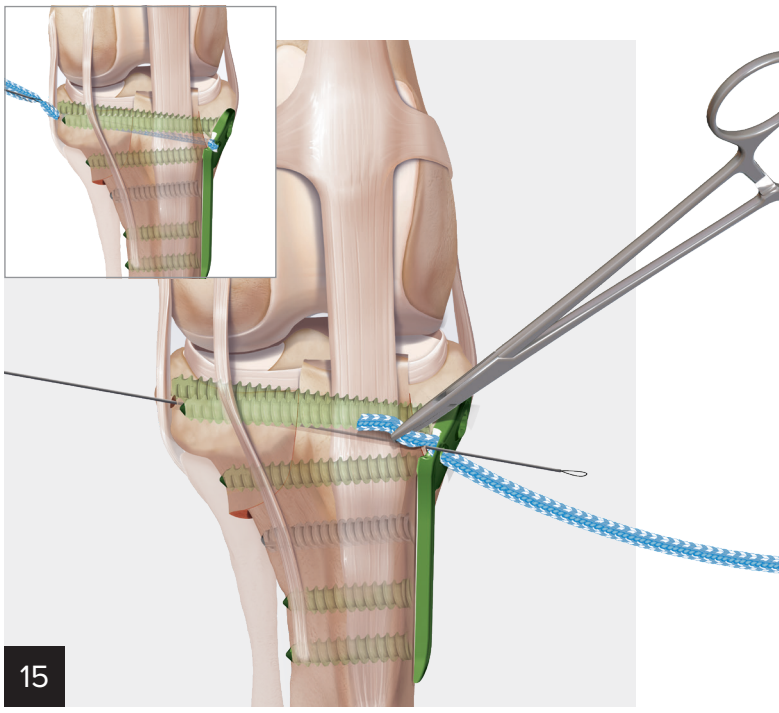
Expose the caudal aspect of the lateral femoral condyle. Drill a hole for the *Internal*Brace™ ligament augmentation PushLock® anchor using the appropriate size drill bit and guide.



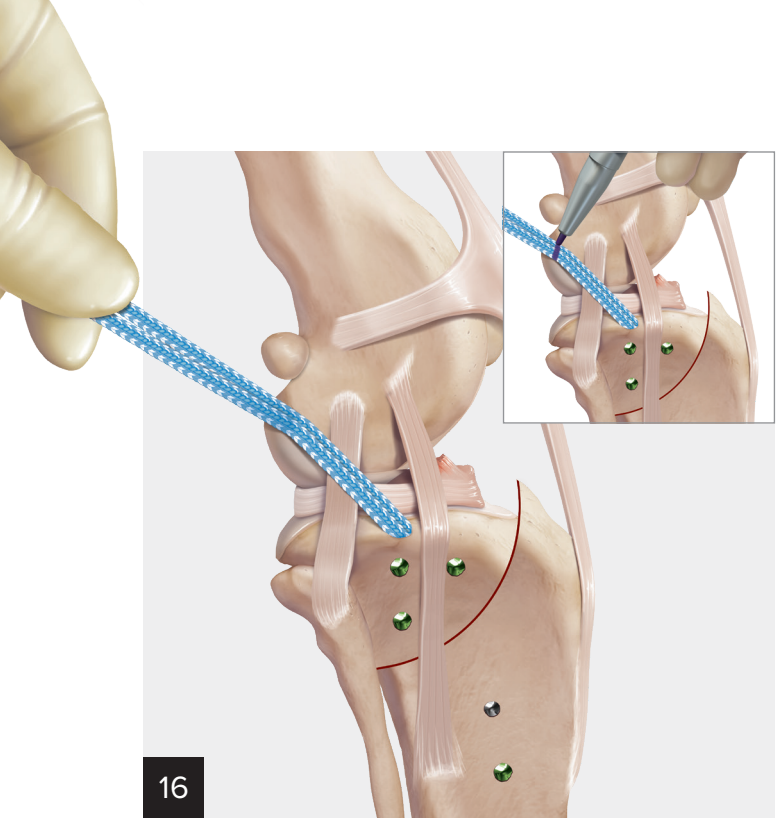
After exposing the tibial tunnel starting point behind the long digital extensor (LDE) groove, place the tip of the aiming guide in the suture hole of the plate and cinch the drill guide sleeve into place to secure the drill guide to the tibia. Drill the appropriately sized K-wire for the tibial tunnel, lateral to medial, making sure the K-wire exits near the open hole in the TPLO plate. Remove the drill guide after properly placing the K-wire.



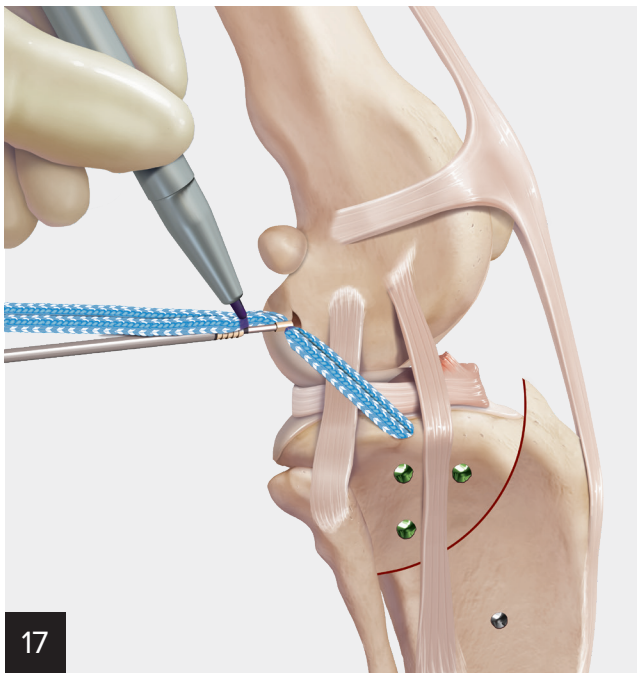
Use the appropriate size cannulated drill bit to create the tunnel.



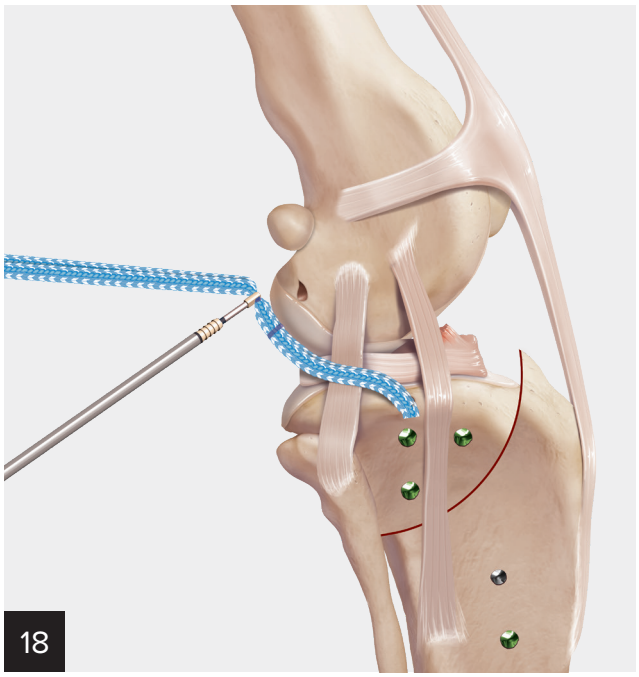
Loop the suture material through the suture hole on the TPLO plate and shuttle it through the tibial tunnel using the nitinol suture passer or nitinol suture-passing flag.



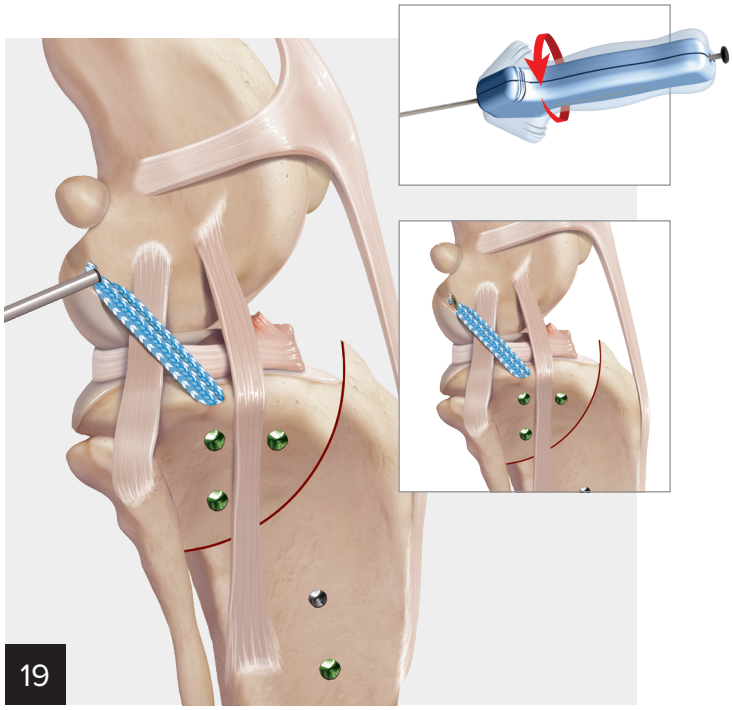
Pull both limbs of the suture material taut and lay over the predrilled hole in the femur. Use a pen to mark the location of the center of the hole on the suture (inset).



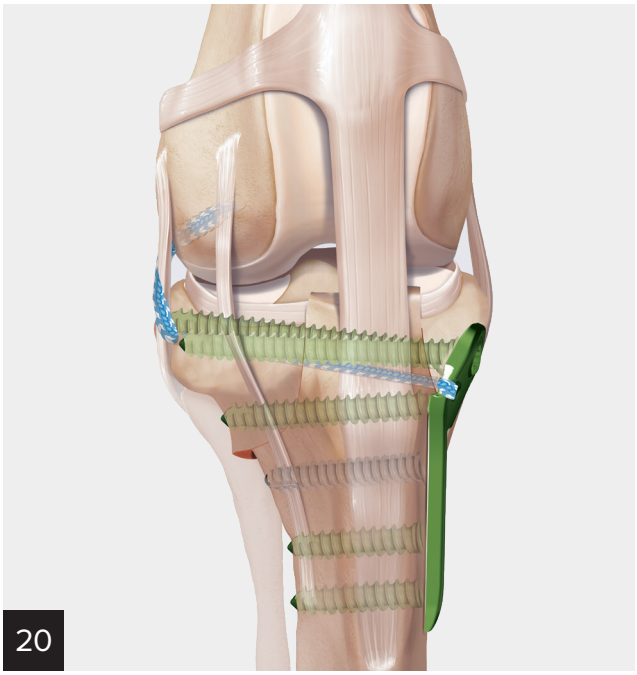
Slide the anchor eyelet over the mark created in Step 16. Pull both limbs of the suture material up the shaft of the *Internal*Brace™ system anchor and mark the location of the laser line on the suture.



Move the eyelet to the mark on the suture material created in Step 17 and advance the anchor and suture into the F2 tunnel. If necessary, use a mallet to advance the eyelet into the predrilled F2 hole tunnel until the tip of the anchor is at the entrance to the femoral hole.



If the joint is secure, advance the anchor fully into the tunnel. Remove the driver from the anchor in the appropriate manner. Cut excess suture flush at the anchor.



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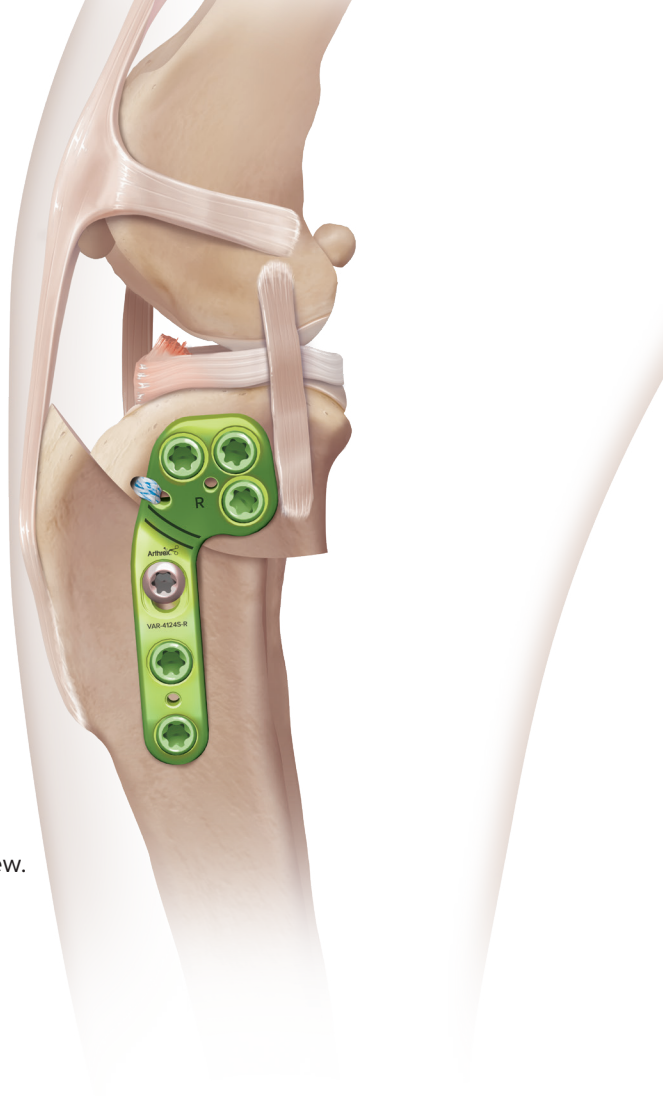
Cranial view.



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Medial view.

Ordering Information

TPLO Plates

Product Description	Item Number
1.6 mm Locking Plates	
TPLO locking plate, 1.6 mm, standard, left	VAR-**4116S-L**
TPLO locking plate, 1.6 mm, standard, right	VAR-**4116S-R**
2.0 mm Locking Plates	
TPLO locking plate, 2.0 mm, standard, left	VAR-**4120S-L**
TPLO locking plate, 2.0 mm, standard, right	VAR-**4120S-R**
2.4 mm Locking Plates	
TPLO locking plate, 2.4 mm, standard, left	VAR-**4124S-L**
TPLO locking plate, 2.4 mm, standard, right	VAR-**4124S-R**

TPLO Screws

Product Description	Item Number
1.6 mm Low-Profile Cortical, Variable-Angle, Titanium	
Low-profile cortical screw, 1.6 mm × 6-20 mm Sizes: 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 20 mm	VAR-**8916-06** to -**20**
Low-profile variable angle screw, 1.6 mm × 6-20 mm Sizes: 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 20 mm	VAR-**8916V-06** to -**20**
Low-Profile Cortical, Locking, Variable-Angle, Titanium	
Low-profile cortical screw, 2.0 mm × 6-30 mm Sizes: 6, 7, 8, 9, 10, 12, 11, 12, 13, 14, 16, 18, 20, 22, 24, 26, 28, 30 mm	VAR-**8920-06** to -**30**
Low-profile variable angle screw, 2.0 mm × 6-30 mm Sizes: 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 20, 22, 24, 26, 28, 30 mm	VAR-**8920V-06** to -**30**
Low-profile locking screw, 2.0 mm × 6-30 mm Sizes: 6, 7, 8, 9, 10, 12, 11, 12, 13, 14, 16, 18, 20, 22, 24, 26, 28, 30 mm	VAR-**8920L-06** to -**30**
2.4 mm Low-Profile Cortical, Locking, Variable-Angle, Titanium	
Low-profile cortical screw, 2.4 mm × 8-30 mm Sizes: 8, 9, 10, 11, 12, 13, 14, 16, 18, 20, 22, 24, 26, 28, 30 mm	VAR-**8924-08** to -**30**
Low-profile variable angle 2.4 mm × 8-30 mm Sizes: 8, 9, 10, 11, 12, 13, 14, 16, 18, 20, 22, 26, 28, 30 mm	VAR-**8924V-08** to -**30**
Low-profile locking screw, 2.4 mm × 8-30 mm Sizes: 8, 9, 10, 11, 12, 13, 14, 16, 18, 20, 22, 24, 26, 28, 30 mm	VAR-**8924L-08** to -**30**

Instruments

Product Description	Item Number
Common Instruments for 1.6 mm/2.0 mm/2.4 mm TPLO Plates	
TPLO tissue protector, mini	VAR-**4000TPM**
TPLO caliper	VAR-**4000-CAL**
Depth device, 2.0 mm/2.4 mm	VAR-**2024DD**
Screw holding forceps	VAR-**8941F**
Mini mallet, 7 in	VAR-**8826M**
Low-profile Hohmann retractor	VAR-**13210**
Wire cutter, 1.57 mm (0.062 in)	VAR-**8956-10**
Instruments for 1.6 mm TPLO Plates	
Drill guide, 1.1 mm	VAR-**4016TDG**
Drill/depth guide, locking, 1.6 mm	VAR-**4016DG**
T6 driver (1.6 mm/2.0 mm)	VAR-**4020-01**
T6 screwdriver	VAR-**4020-02**
Locking plate holder, 2.0 mm	VAR-**4020-03**
Instruments for 2.0 mm TPLO Plates	
Tap/nonlocking drill guide, 2.0 mm	VAR-**4020TDG**
Locking drill guide, 2.0 mm	VAR-**4020DG**
Bone tap, 2.0 mm	VAR-**4020T**
T6 driver, AO	VAR-**4020-01**
T6 screwdriver	VAR-**4020-02**
Locking plate holder, 2.0 mm	VAR-**4020-03**
Instruments for 2.4 mm TPLO Plates	
Tap/nonlocking drill guide, 2.4 mm	VAR-**4024TDG**
Locking drill guide, 2.4 mm	VAR-**4024DG**
Bone tap, 2.4 mm	VAR-**4024T**
T8 driver, AO	VAR-**4024-01**
T8 screwdriver	VAR-**4024-02**
Locking plate holder, 2.4 mm	VAR-**4024-03**

Disposables and Limited Reusables

Product Description	Item Number
K-Wire, 1.14 mm (0.045 in)	VAR-**8933K**
K-Wire, 1.57 mm (0.062 in)	VAR-**8941K**
K-Wire, 1.98 mm (0.078 in)	VAR-**8945K**
Drill bit, solid, AO, 1.1 mm (1.6 mm)	VAR-**4016D**
Drill bit, solid, AO, 1.5 mm (2.0 mm)	VAR-**4020D**
Drill bit, solid, AO, 1.8 mm (2.4 mm)	VAR-**4024D**
Drill bit, solid, short, AO, 1.1 mm (1.6 mm)	VAR-**4016SD**
Drill bit, solid, short, AO, 1.5 mm (2.0 mm)	VAR-**4020SD**
Drill bit, solid, short, AO, 1.8 mm (2.4 mm)	VAR-**4024SD**
Osteotome, 2 mm	VAR-**13203-02**
Osteotome, 4 mm	VAR-**13203-04**

Sets and Cases

Product Description	Item Number
TPLO set with instruments, 2.0 mm/2.4 mm	VAR-**402024S**
TPLO case with screw caddies, 2.0 mm/2.4 mm	VAR-**402024C**
TPLO screw caddy, 2.0 mm	VAR-**4020SC-01**
TPLO screw caddy, 2.4 mm	VAR-**4024SC-01**

*Interna*lBrace™ Ligament Augmentation System

Product Description	Item Number
Implants for *Interna*lBrace System	
2.5 mm PushLock® anchor	VAR-**8825P**
1.3 mm SutureTape	VAR-**7580**
#2 FiberWire® suture	AR-**7233**
Instruments for *Interna*lBrace System	
2.5 mm PushLock punch	VAR-**1322P**
2.5 mm PushLock drill guide	VAR-**8825DG**
Aiming guide	VAR-**2810**
Disposables and Limited Reusables for *Interna*lBrace System	
K-Wire, 1.24 mm (0.049 in)	VAR-**8920P**
Drill bit, 1.8 mm	VAR-**8825D-01**
Drill bit, 2.0 mm	VAR-**8825D-02**
Cannulated drill bit, 2.0 mm	VAR-**8933-20C**
Suture passing wire	VAR-**1255-08**

Product Weight Chart

All weight ranges are suggestions based on the ultimate load of the product and/or on our veterinary consultant's recommendation. It is up to the veterinarian to determine the proper product, application, technique, and weight range for using the selected product.

	1-4 kg	3-7 kg	8-12 kg	
***Interna*lBrace™ System Anchors**	**TPLO Plate Sizes**			***Interna*lBrace System Sutures**
2.5 mm PushLock anchor	1.6 mm			#2 FiberWire suture SutureTape Suture, 1.3 mm
2.4 mm/2.5 mm PushLock anchor		2.0 mm		SutureTape, 1.3 mm
2.5 mm/2.9 mm PushLock anchor			2.4 mm	SutureTape, 1.3 mm

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Arthrex manufacturer, authorized representative, and importer information (Arthrex eIFUs)

US patent information

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