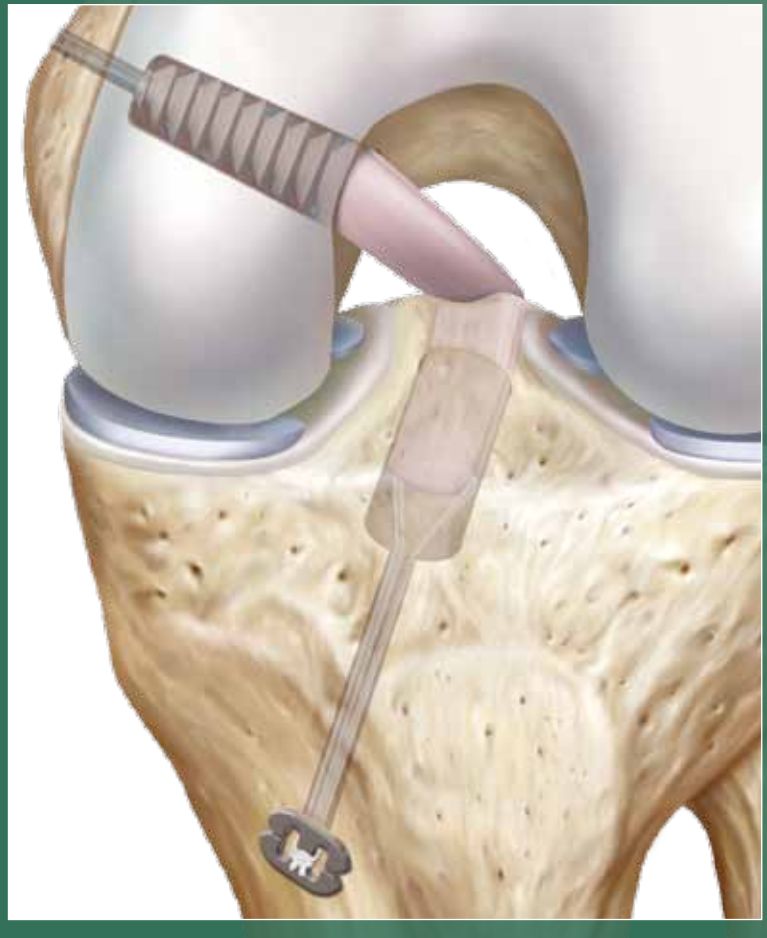
Arthrex®

All-Inside® PCL Reconstruction

Surgical Technique



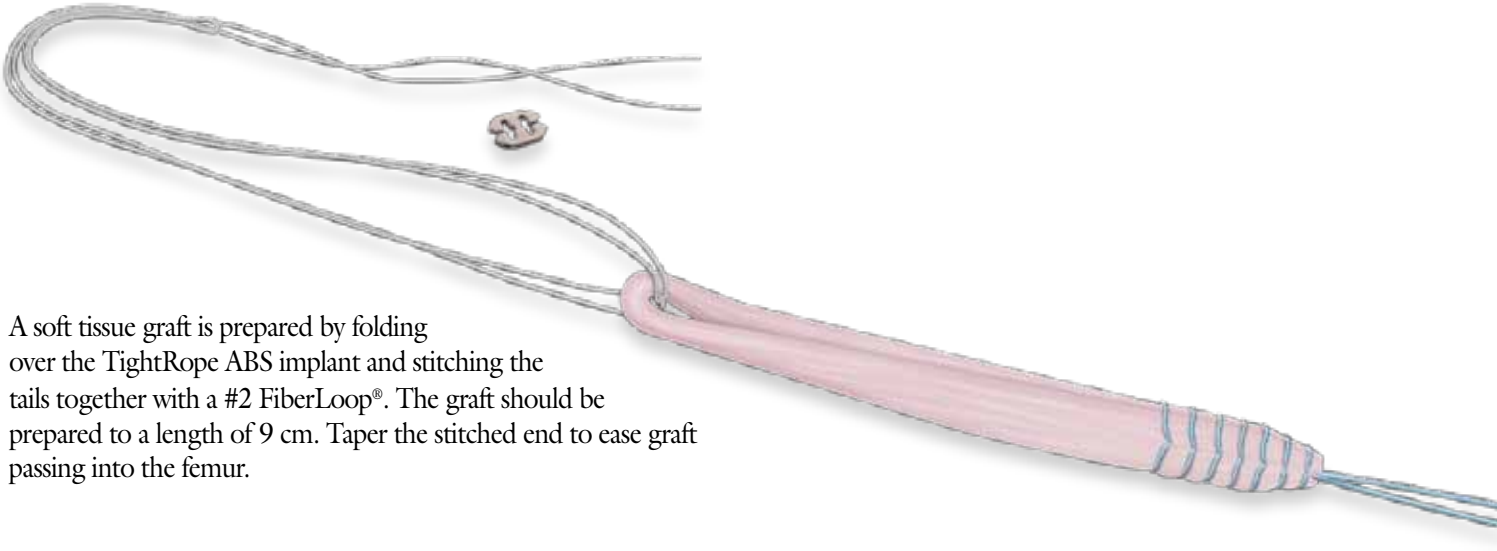
All-Inside PCL Reconstruction

The All-Inside technique makes possible minimally invasive PCL surgery that simplifies many of the more difficult steps encountered during PCL Reconstruction such as visualizing the tibial footprint, drilling the tibial tunnel, graft passing and graft tensioning. The Anatomic Contour PCL Guide confirms tunnel position both visually and by feel, while protecting the popliteal area during drilling. The FlipCutter® allows drilling of a tibial bone socket away from the popliteal neurovascular bundle. Graft passing from inside of the joint into a tibial socket is much simpler than transtibial passage and fixation with the TightRope® allows finite graft tensioning in any degree of extension.

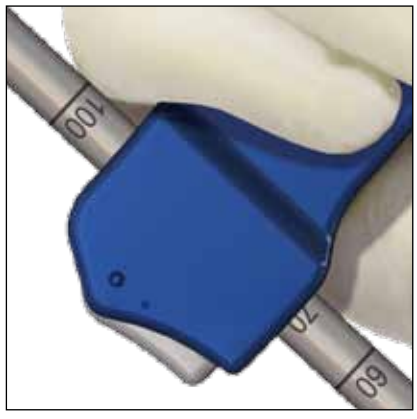
"PCL reconstruction can be a challenging surgery. Many of the difficult issues encountered during PCL reconstruction can be eliminated with the use of next generation instrumentation and implants like the FlipCutter and the TightRope ABS. I've been using the technique described below for the past year and have been able to reduce surgical time and improve postoperative stability and recovery."

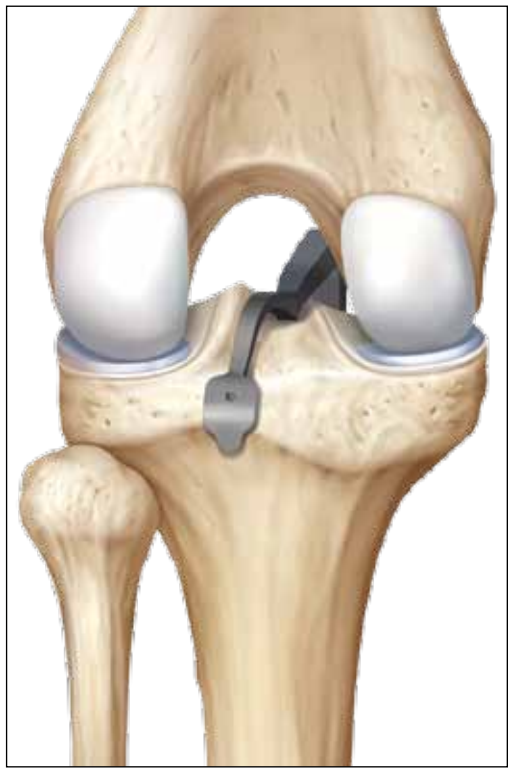
- Joel Boyd, M.D.

Associate Professor University of Minnesota;
Team Physician Minnesota Vikings; and
Team Physician Minnesota Wild



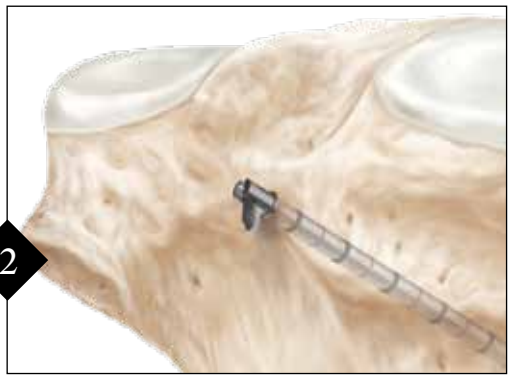
A soft tissue graft is prepared by folding over the TightRope ABS implant and stitching the tails together with a #2 FiberLoop®. The graft should be prepared to a length of 9 cm. Taper the stitched end to ease graft passing into the femur.



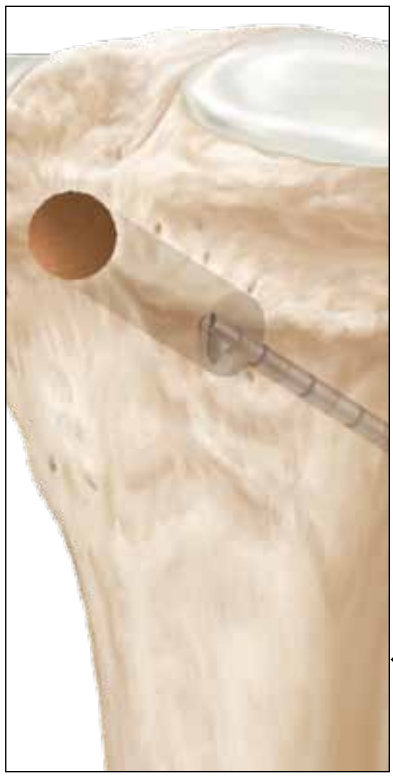


1

The side-specific Anatomic Contour PCL Guide is placed over the back of the tibia and is designed to grasp the distal edge of the posterior facet. This position can be visualized and confirmed by feel when pulling back on the guide. The wide, convex guide tip also facilitates correct placement in the coronal plane by settling in between mamillary bodies. When in position, the marking hook will guide the FlipCutter to the ideal location and angle for transtibial PCLR. Before drilling the FlipCutter, make note of the interosseous length as read by the drill sleeve markings where it enters the guide handle.



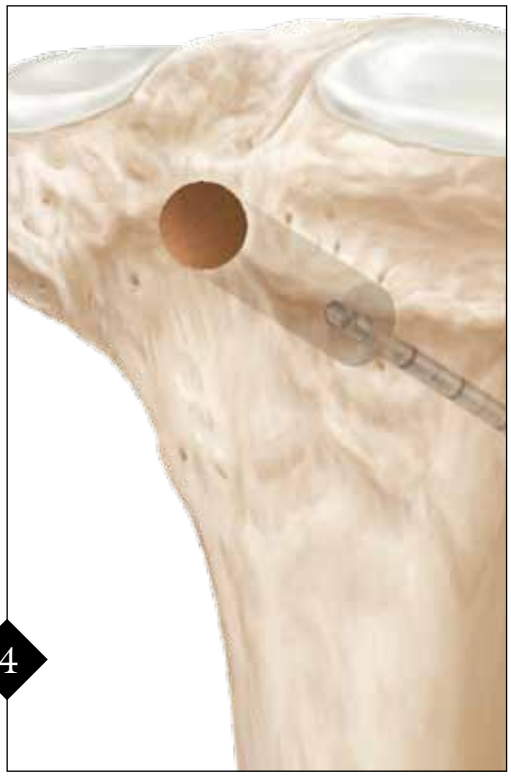
2



3

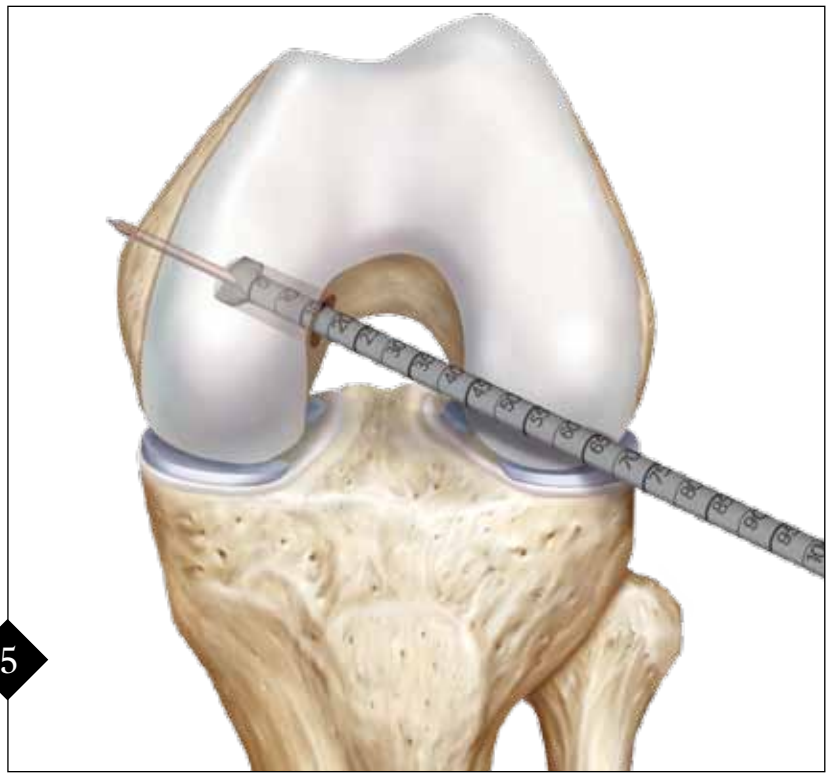
Place the FlipCutter into the drill sleeve and move the rubber grommet back to a distance equal to the interosseous length. This will give an indication of drill depth. The pin may also be visualized under fluoroscopy. Once the FlipCutter has entered the joint, remove the guide, tap in the Stepped Drill Sleeve and "flipcut" the socket to a depth of at least 35 mm as indicated by the distance from the drill sleeve to the grommet (a).

NOTE: The Anatomic Contour PCL Guide may be used as a retractor to protect the popliteal area during drilling.



4

After creating the socket, "unflip" the FlipCutter and remove it from the drill sleeve. Place a #2 FiberStick™ up the sleeve and into the joint to be used for graft passing.

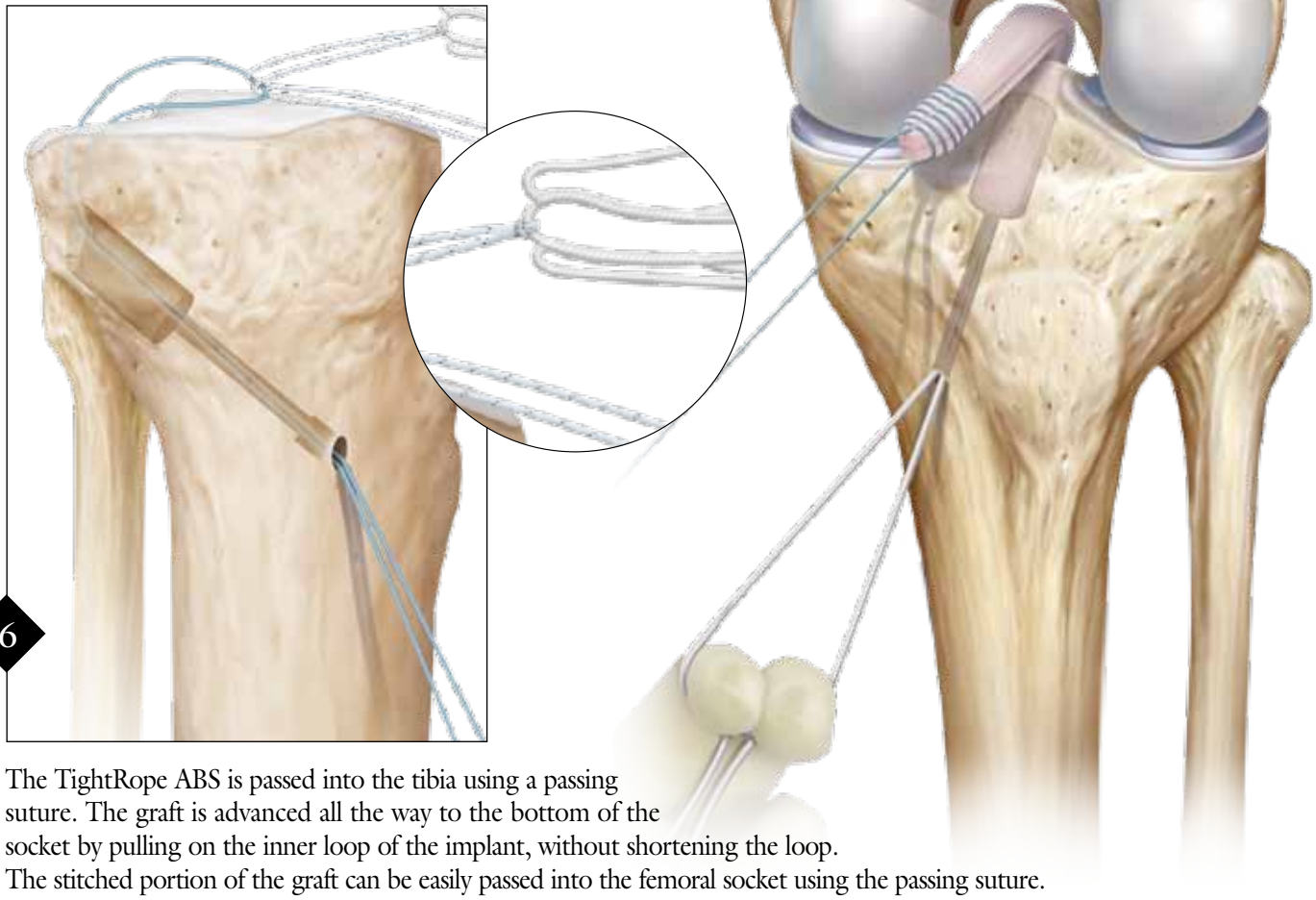


5

Double Bundle PCL Guides

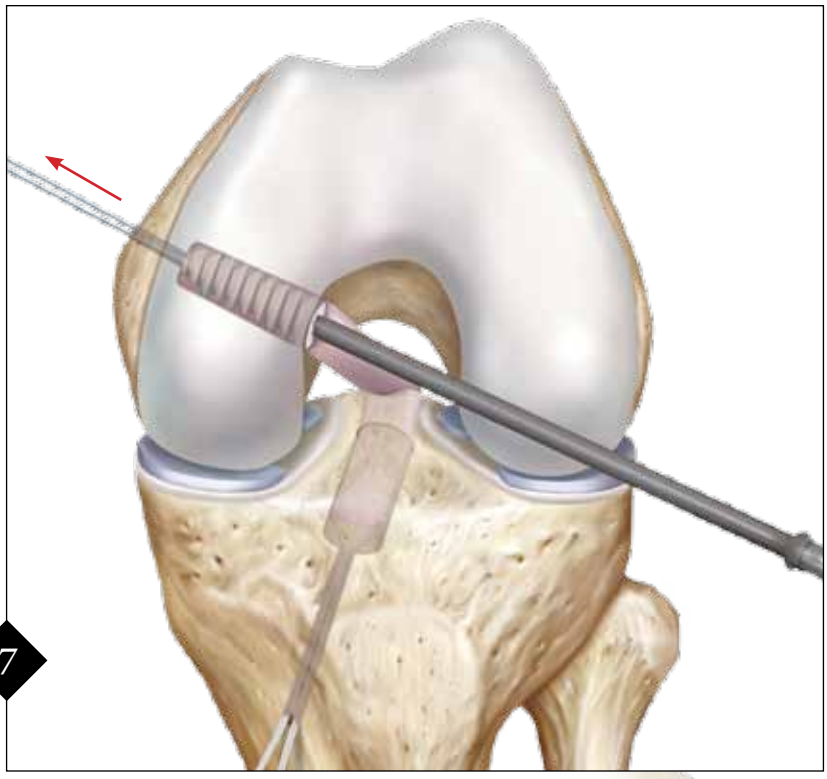
Low Profile Reamers

The femur is drilled through an anterolateral portal to at least 25 mm deep using a Double Bundle PCL Guide and Low Profile Reamer. After drilling, a passing suture is left in place for later graft passing.



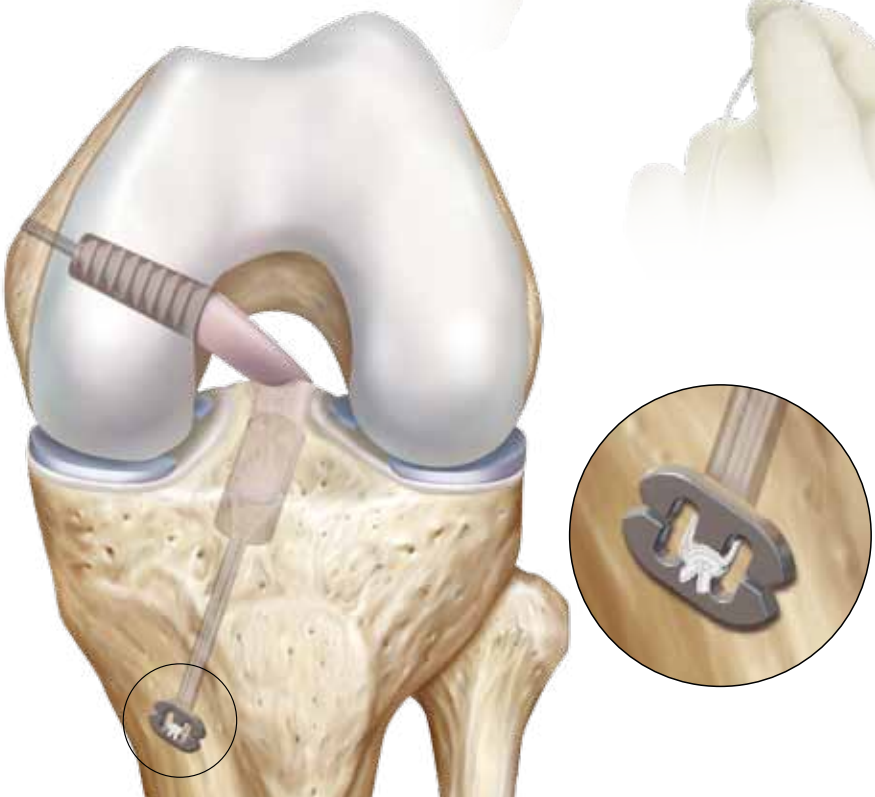
6

The TightRope ABS is passed into the tibia using a passing suture. The graft is advanced all the way to the bottom of the socket by pulling on the inner loop of the implant, without shortening the loop. The stitched portion of the graft can be easily passed into the femoral socket using the passing suture.



7

The femoral end of the graft is tensioned and fixed with a BioComposite™ Screw. The TightRope ABS Button is loaded onto the loop and the graft is tensioned by pulling on the TightRope shortening strands until desired tension is reached.



8

Once the desired tension is achieved, a knot may be tied over the button as backup fixation and excess suture cut off.

Ordering Information

Implants:

TightRope ABS	AR-1588TN
TightRope ABS Button	AR-1588TB
BioComposite Interference Screws, w/disposable sheath, 6 – 10 mm x 23 mm	AR-1360C – AR-1400C

Instruments:

RetroConstruction Drill Guide Set	AR-1510S
Anatomic Contour PCL Guide, left	AR-1510PTL
Anatomic Contour PCL Guide, right	AR-1510PTR
Double Bundle PCL Guide Set	AR-5015S
Graft Prep Station, Basic Set	AR-2950S
BioComposite Interference Screw Set	AR-1996S

Disposables:

FlipCutter II, 6 mm	AR-1204AF-60
FlipCutter II, 6.5 mm	AR-1204AF-65
FlipCutter II, 7 mm	AR-1204AF-70
FlipCutter II, 7.5 mm	AR-1204AF-75
FlipCutter II, 8 mm	AR-1204AF-80
FlipCutter II, 8.5 mm	AR-1204AF-85
FlipCutter II, 9 mm	AR-1204AF-90
FlipCutter II, 9.5 mm	AR-1204AF-95
FlipCutter II, 10 mm	AR-1204AF-100
FlipCutter II, 10.5 mm	AR-1204AF-105
FlipCutter II, 11 mm	AR-1204AF-110
FlipCutter II, 11.5 mm	AR-1204AF-115
FlipCutter II, 12 mm	AR-1204AF-120
FlipCutter II, 13 mm	AR-1204AF-130
Low Profile Reamer, 5 mm	AR-1405LP
Low Profile Reamer, 5.5 mm	AR-1405LP-50
Low Profile Reamer, 6 mm	AR-1406LP
Low Profile Reamer, 6.5 mm	AR-1406LP-50
Low Profile Reamer, 7 mm	AR-1407LP
Low Profile Reamer, 7.5 mm	AR-1407LP-50
Low Profile Reamer, 8 mm	AR-1408LP
Low Profile Reamer, 8.5 mm	AR-1408LP-50
Low Profile Reamer, 9 mm	AR-1409LP
Low Profile Reamer, 9.5 mm	AR-1409LP-50
Low Profile Reamer, 10 mm	AR-1410LP
Low Profile Reamer, 10.5 mm	AR-1410LP-50
Low Profile Reamer, 11 mm	AR-1411LP
Low Profile Reamer, 11.5 mm	AR-1411LP-50
Low Profile Reamer, 12 mm	AR-1412LP
Low Profile Reamer, 12.5 mm	AR-1412LP-50
Low Profile Reamer, 13 mm	AR-1413LP

Suture:

#2 FiberLoop w/Straight Needle, 20" (blue), 76 mm needle w/7 mm loop	AR-7234
#2 TigerLoop w/Straight Needle, 20" w/TigerWire (white/green), 76 mm needle w/7 mm loop	AR-7234T

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.

Arthrex®

www.arthrex.com

. . . up-to-date technology just a click away