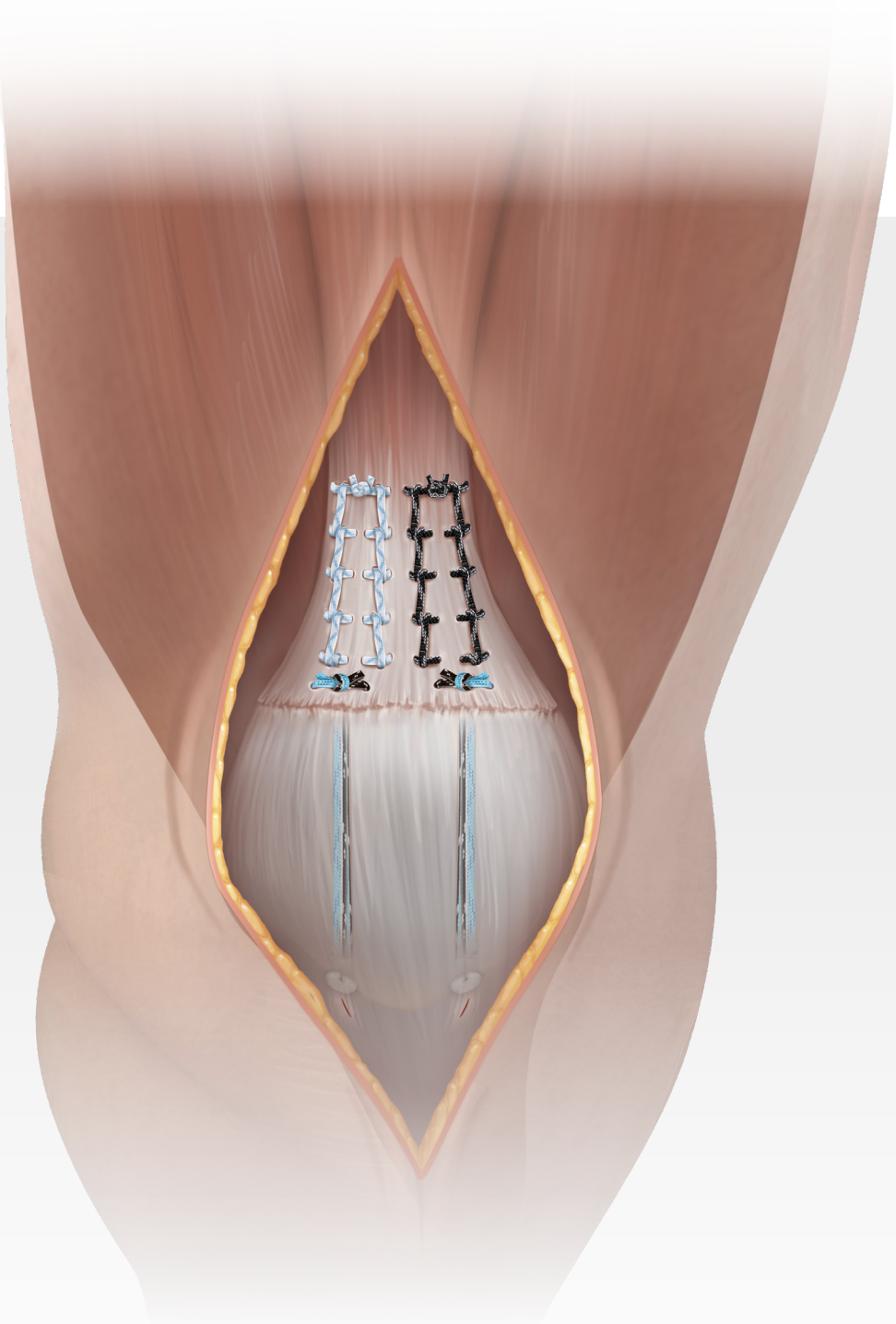
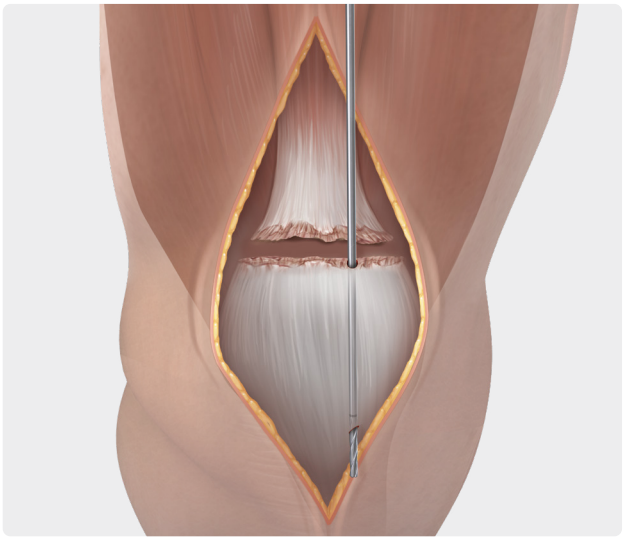
Transosseous Quad Tendon Repair With Double Knotless Knee FiberTak® Anchors

Surgical Technique



Arthrex®

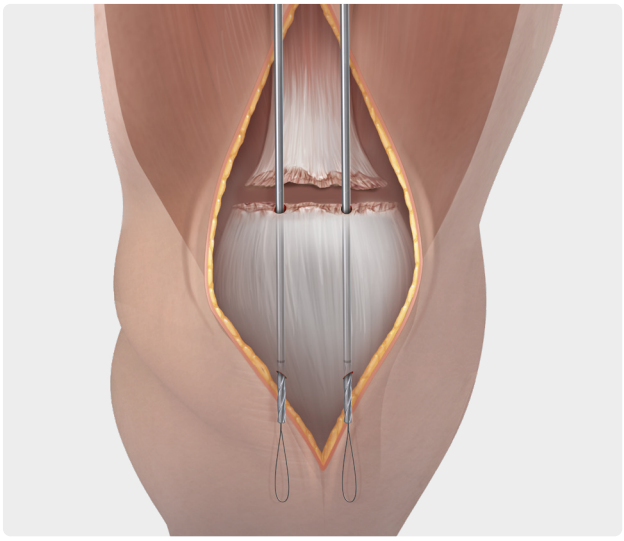
Surgical Technique



1

Prepare the superior pole of the patella by removing any remaining soft tissue with a rongeur to create a bleeding bone bed. Template the location and number of parallel transosseous tunnels based on tear size and patient anatomy. Once confirmed, advance a 2.4 mm cannulated drill pin bicortically through the patella.

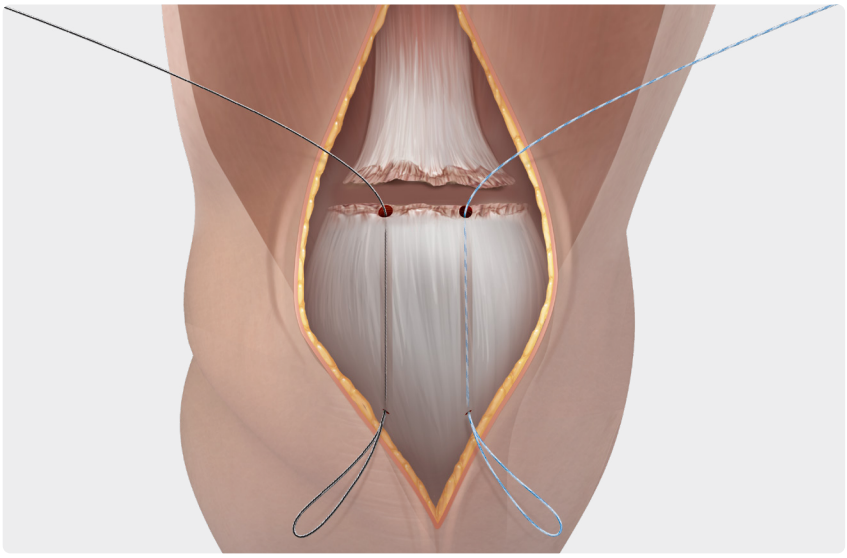
> **Note:** A slight dorsal trajectory allows for easy identification of the drill pin as it exits the inferior pole and reduces the risk of damaging the articular cartilage.



2

Advance a second 2.4 mm cannulated drill pin through the patella, creating 2 evenly spaced transosseous tunnels. Remove the trocar from the drill pin, and deliver a lasso wire through the inner cannulation.

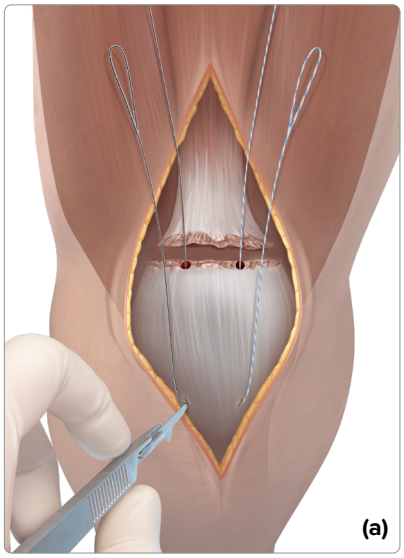
> **Note:** To ensure there is no bone in the distal tip of the cannulated drill pin, screw the trocar in tight before removing. This will push any bone out of the cannulation.

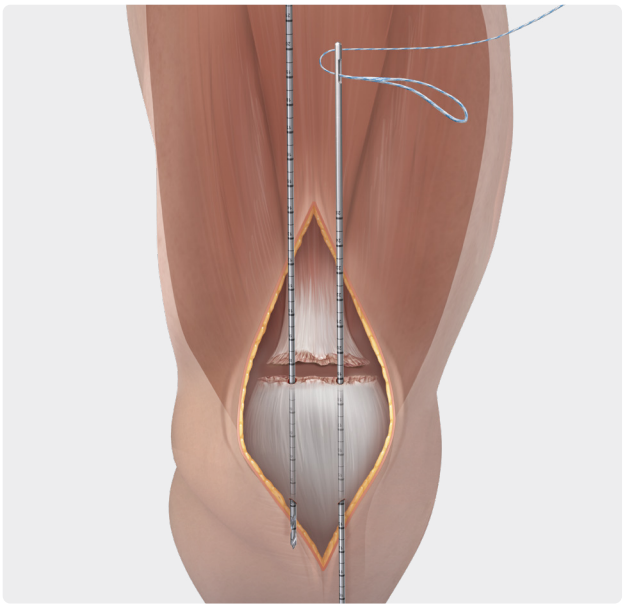


3

Using the SD Lasso Wire Loops, pass the single end of a FiberSnare suture through each tunnel, resulting in the FiberSnare shuttle loops exiting the inferior pole of the patella. FiberSnare sutures are available in multiple colors for easier suture management **(a)**.

> **Note:** To reduce anchor prominence, prior to shuttling FiberSnare sutures, make small, vertical incisions at the inferior tunnel aperture in line with the fibers of the patella tendon to allow the anchor bodies to recess within the tendon in contact with the patellar cortex.
>
> The number of tunnels for fixation is based on surgeon preference and patient anatomy. For patients with a larger footprint, three tunnels may be appropriate.

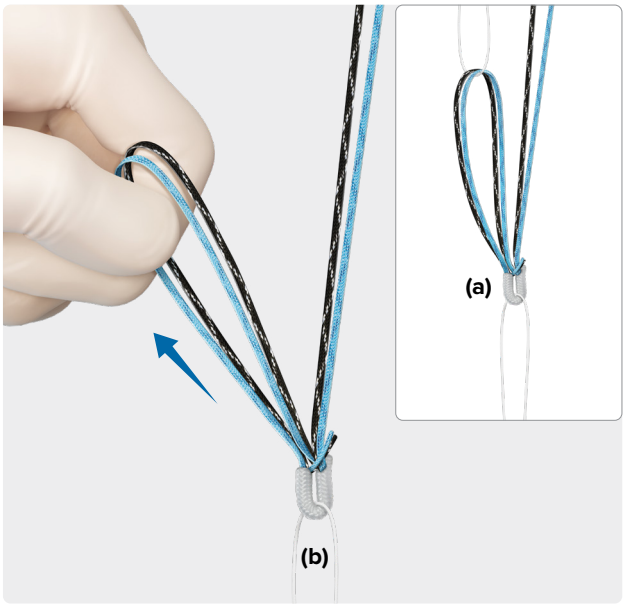




4

Alternatively, a 2.4 mm zebra pin can be used to create transosseous tunnels based on surgeon preference. The 2.4 mm zebra pin features a closed scalloped eyelet for streamlined suture shuttling.

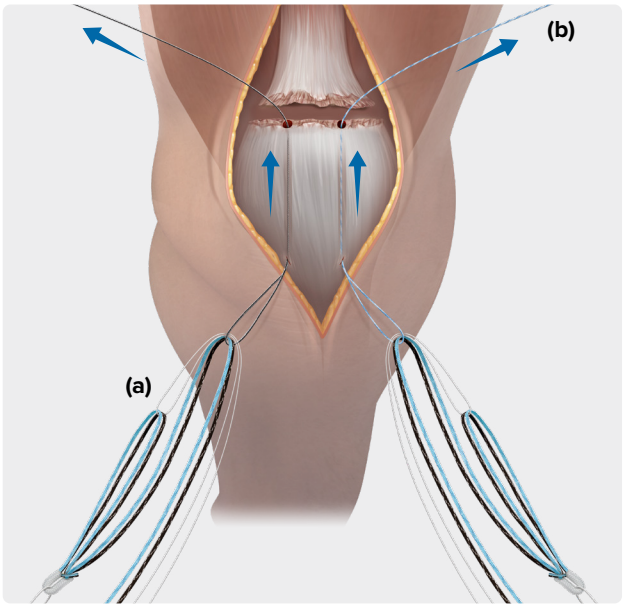
> **Note:** Ensure the looped end of the FiberSnare® sutures exit the inferior pole of the patella.



5

Remove the Double Knotless Knee FiberTak® anchor from the inserter. Lengthen both preconverted loops by gently pulling on the sliding portion of the loops to ensure suture clearance during transosseous shuttling. The white safety suture **(a)** allows both knotless loops to be shuttled together.

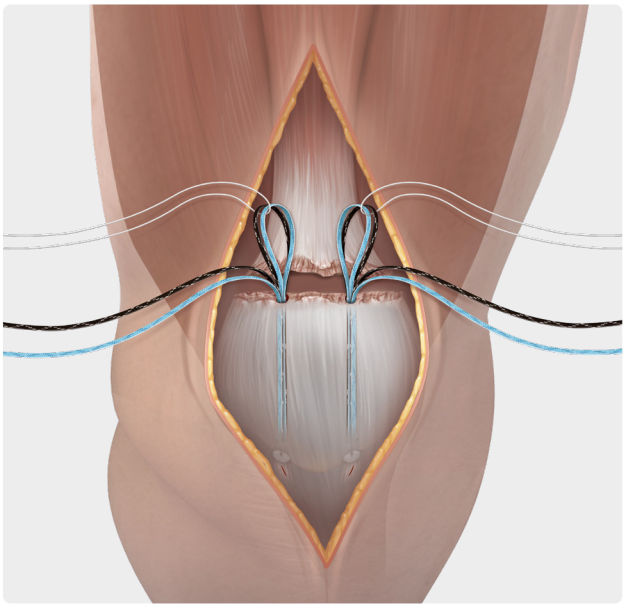
> **Note:** An additional safety suture can be threaded through the anchor body **(b)** to provide countertension during shuttling if desired.



6

Load the white safety suture and the black and blue tensioning strands through the FiberSnare loop **(a)**.

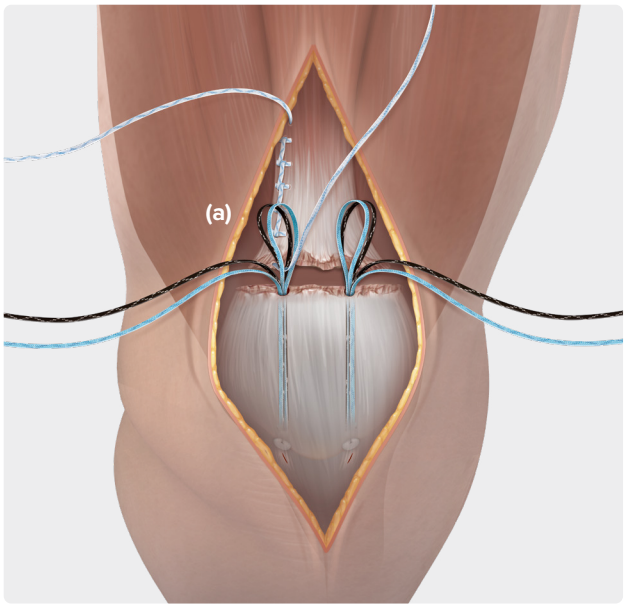
Pull the unlooped end of the FiberSnare suture **(b)** to shuttle proximally through the transosseous tunnels. Repeat this process for the second implant.



7

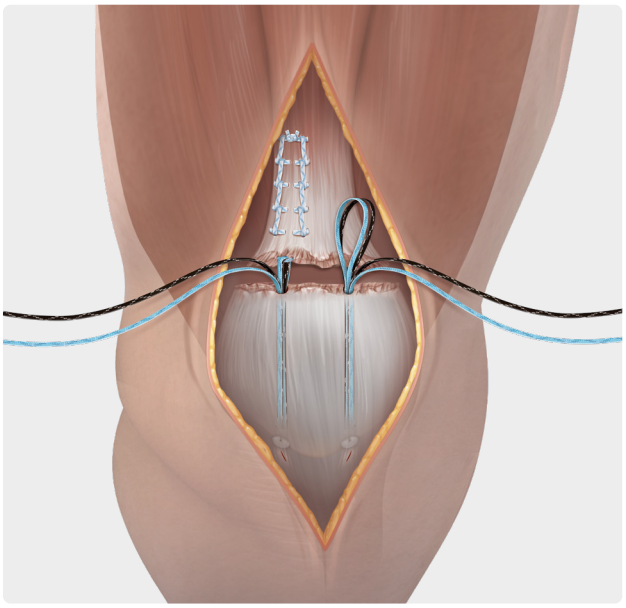
Both knotless loops and tensioning strands should exit the superior pole of the patella. Firmly pull on both knotless loops together to seat the anchors on the cortex of the inferior pole.

> **Note:** The white safety suture can now be discarded.



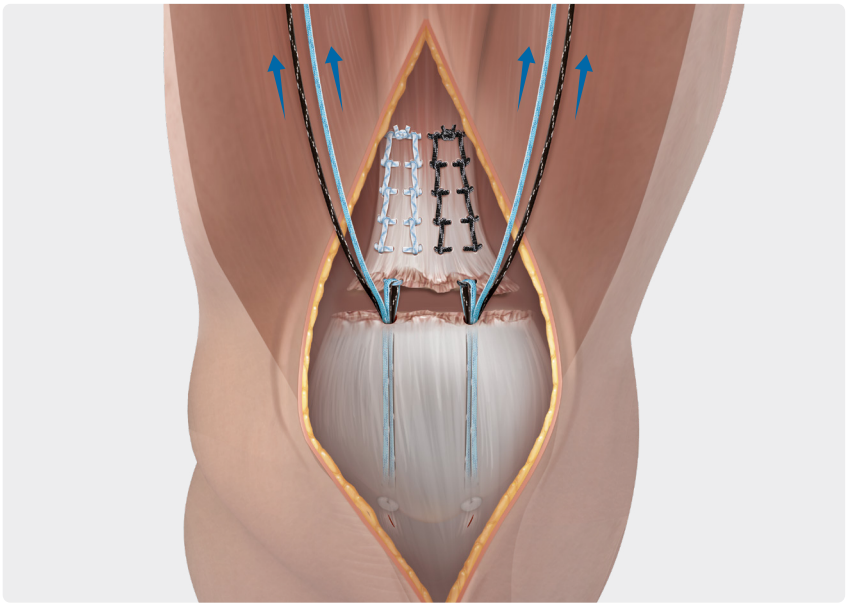
8

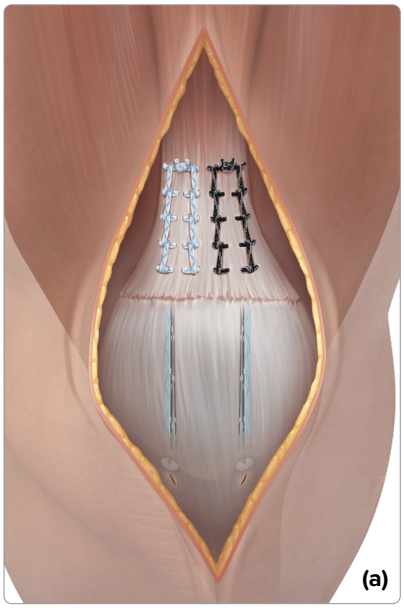
Use a 1.7 mm SutureTape with a curved needle to place several locking Krackow suture passes, starting approximately 5-6 cm proximal to the tear and progressing from proximal to distal, with the suture exiting the midsubstance of the quad tendon distally **(a)**.



9

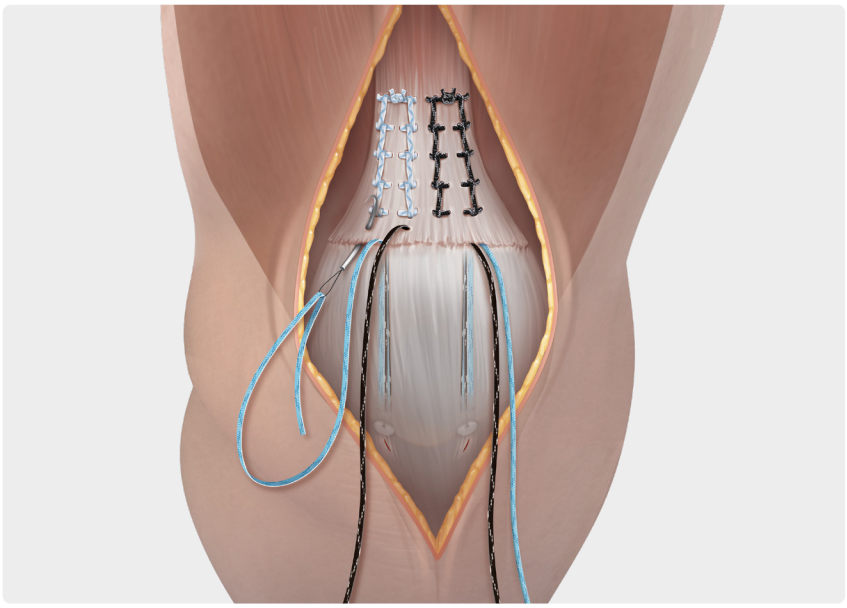
Pass the needle end of the 1.7 mm SutureTape through both knotless tensionable loops of the Knee FiberTak® implant and back up through the midsubstance of the quadriceps tendon tear site. Then place several locking Krackow suture passes, progressing from distal to proximal. Tie the strands of the 1.7 mm SutureTape and cut the excess suture.

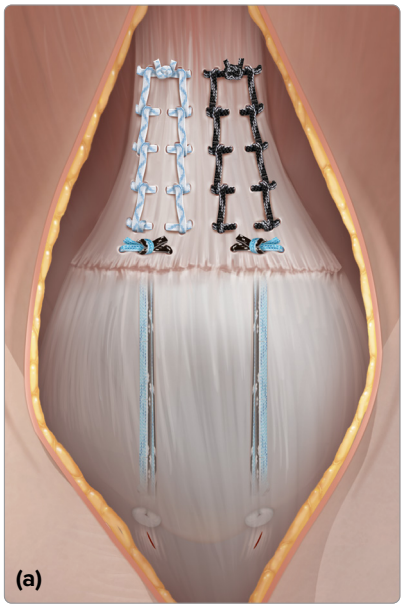




10

With the knee in full extension, sequentially pull the blue and black tensioning limbs to reduce the quadriceps tendon back to its native footprint. Repeat this process for the second implant. The knee can be gently cycled. If any gap formation is identified, the anchors can be retensioned to remove slack. Once the desired tension is achieved, the tensioning limbs can be cut **(a)**.





11

For additional footprint compression, the tensioning limbs can be passed back through the remnant tissue and tied together in a horizontal mattress configuration **(a)**.

Ordering Information

Implants	Price	Item Number
Double Knotless Knee FiberTak® anchor	$875	AR-3740SP
Instrumentation		
2.4 cannulated drill and SutureLasso™ SD wire loop	$492	AR-1594D-24
2.4 mm zebra guide pin	$209	AR-1250Z
Sutures		
FiberSnare® guidewire, black/white	$175	AR-7209SNT
FiberSnare guidewire, white/blue	$175	AR-7209SNL
1.3 mm SutureTape w/ two 26.5 mm half-curved needles, white/blue	$92	AR-7505
1.3 mm SutureTape, w/ two 26.5 mm half-curved needles, black/white	$92	AR-7505TT-02
1.3 mm SutureTape, w/ two 36.6 mm half-curved needles, white/black	$92	AR-7531-02
1.7 mm SutureTape, w/ conventional cutting needle, white/black	$83.50	AR-7511T
1.7 mm SutureTape, w/ conventional cutting needle, white/blue	$83.50	AR-7511
Tapered needle w/ nitinol loop	$32	AR-7281

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Notes

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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US patent information

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