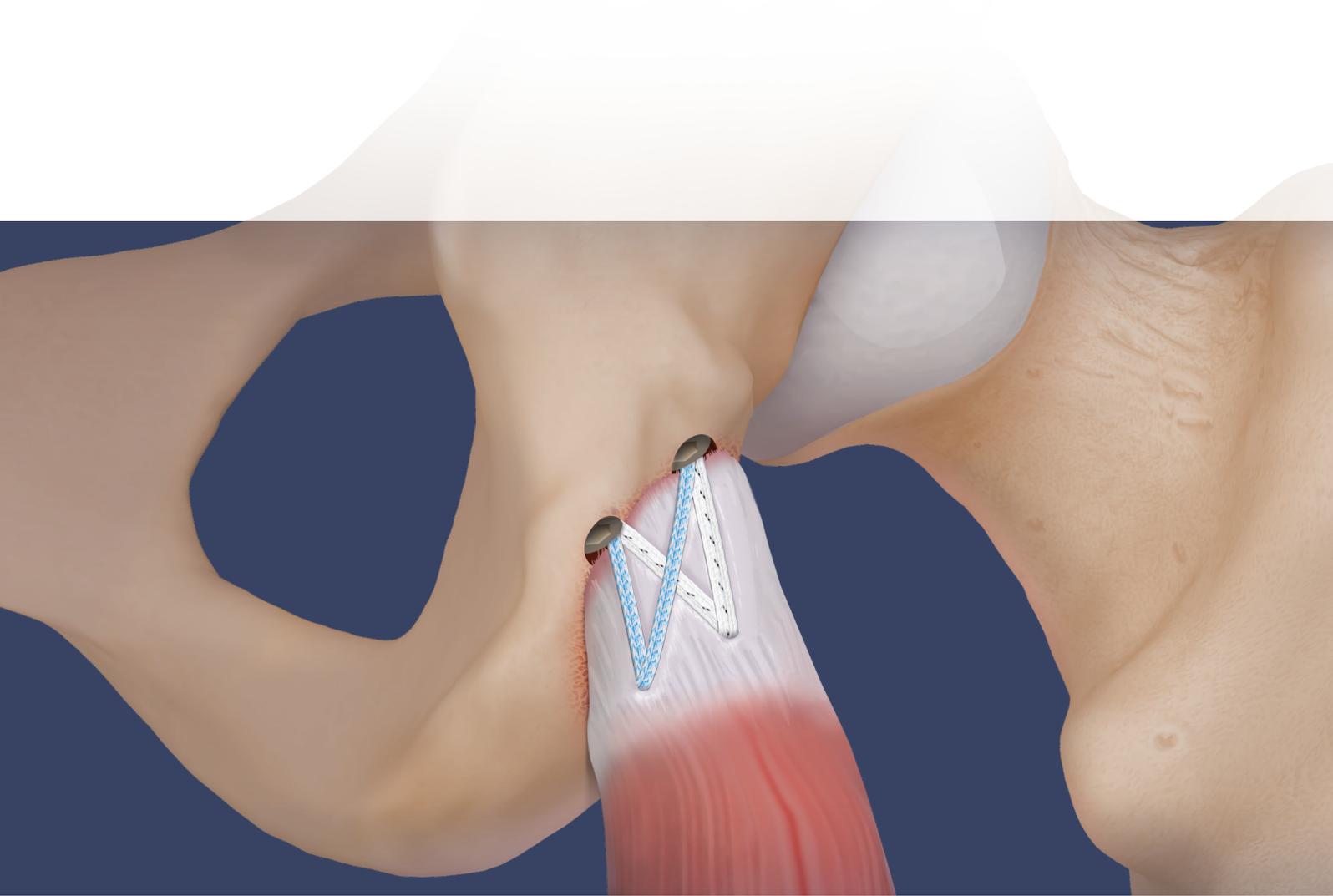


# Proximal Hamstring Tendon Repair Using a SpeedBridge™ Technique

Surgical Technique



# Proximal Hamstring Tendon Repair

Proximal hamstring tendon avulsions often occur as an acute injury associated with overstraining of the hip and are common during activities such as waterskiing, soccer, and gymnastics.<sup>1</sup>

This procedure is usually performed with the patient in a prone position and an incision is typically made in the gluteal crease. Retractors are placed in the surrounding muscles to allow access to the lateral facet of the ischial tuberosity and protect the neurovascular structures in the posterior region of the hip.

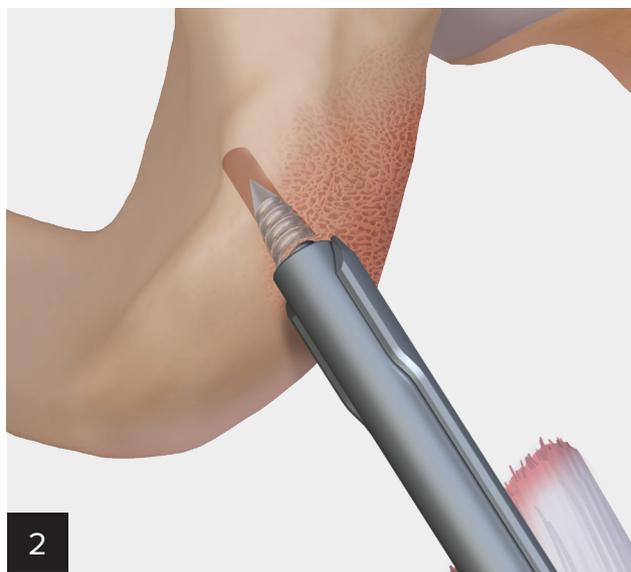
The hip SpeedBridge™ implant system with PEEK SwiveLock® anchors contains the necessary implants for securing the proximal hamstring back to its native attachment site using a low-profile, knotless suture configuration. In addition to the SwiveLock anchors, this convenient implant system includes the required disposable instrumentation for anchor insertion as well as free needles for passing the FiberTape® suture and/or the #2 FiberWire® retention sutures to accommodate varying repair techniques. Gerhardt et al conducted a biomechanical analysis of the SpeedBridge construct and found that it is statistically stronger than a fully knotted technique with regards to elongation during cyclic loading and maximum load to failure.<sup>2</sup>



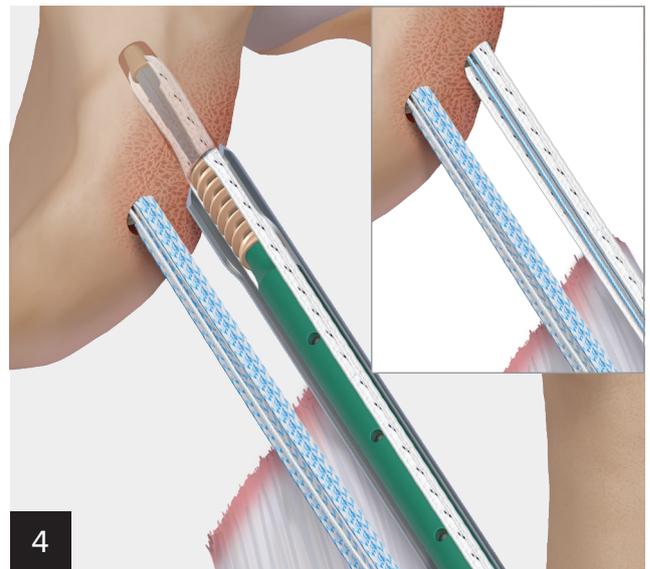
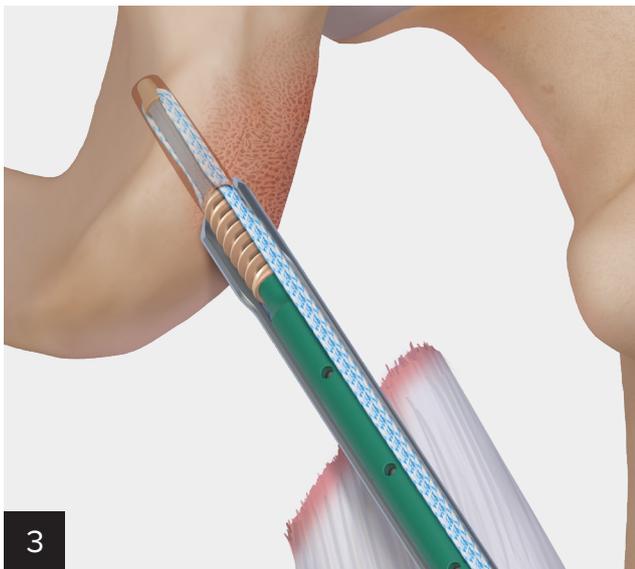
## Surgical Technique



After preparing the ischial tuberosity for tendon reattachment, place the modular drill guide, drill guide sleeve, and obturator on the distal posterior portion of proximal hamstring tendon attachment site on the lateral facet of the ischial tuberosity. Remove the obturator and insert a drill bit on power until the laser line is buried inside the drill guide sleeve. Once buried, remove the drill bit from the drill guide sleeve.



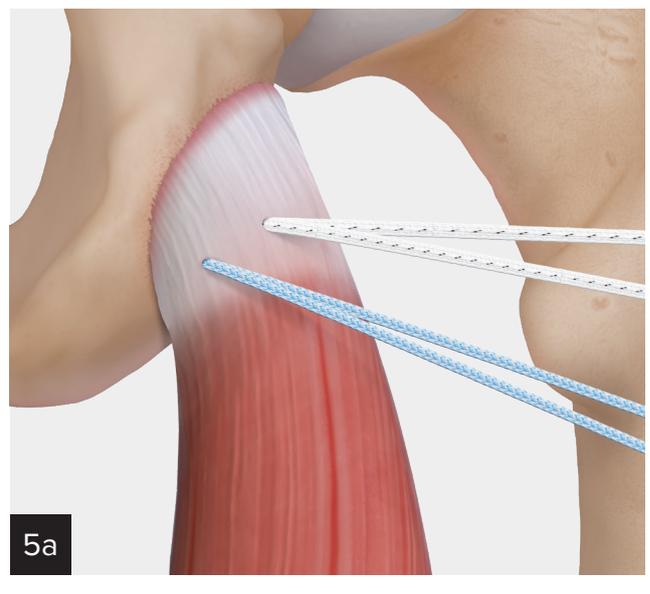
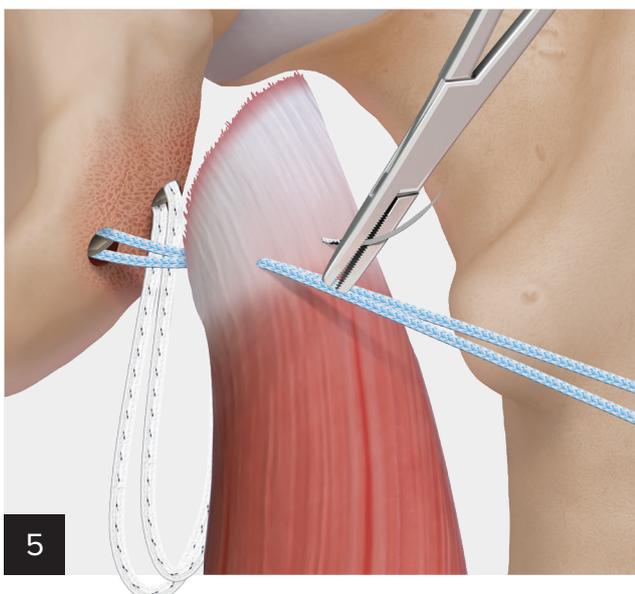
Insert a quick connect 4.75 mm SwiveLock tap on power in a forward direction to the positive stop. Once the tap contacts the positive stop, spin the tap in a reverse direction and remove it from the drill guide sleeve. Remove the guide sleeve by twisting it in a counterclockwise direction, leaving only the open drill guide on the tuberosity.



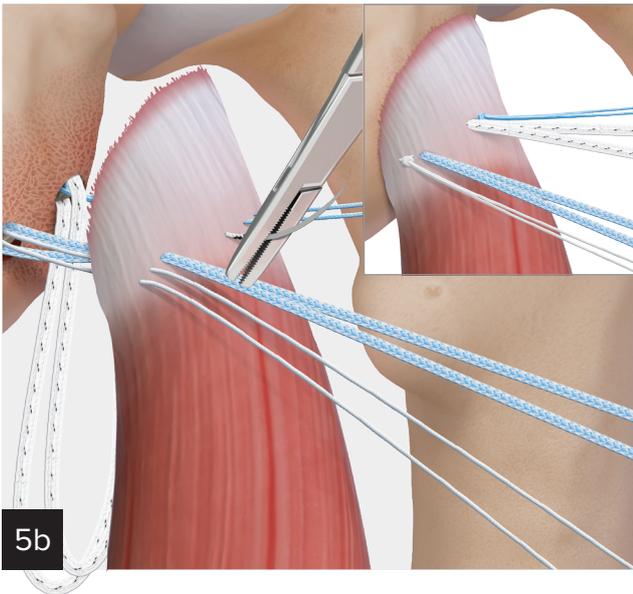
Introduce a 4.75 mm PEEK SwiveLock® anchor loaded with blue FiberTape® suture through the open drill guide until the tip of the anchor is inserted into the pilot hole. Place the eyelet completely into the pilot hole until the anchor body makes contact with the bone. Remove the sled and hold the thumb pad while rotating the driver handle in a clockwise direction until the anchor body is flush with the bone.

Assemble the modular drill guide and repeat steps 1 through 3 with a second PEEK SwiveLock anchor loaded with a black/white TigerTape™ suture for a distal anterior anchor.

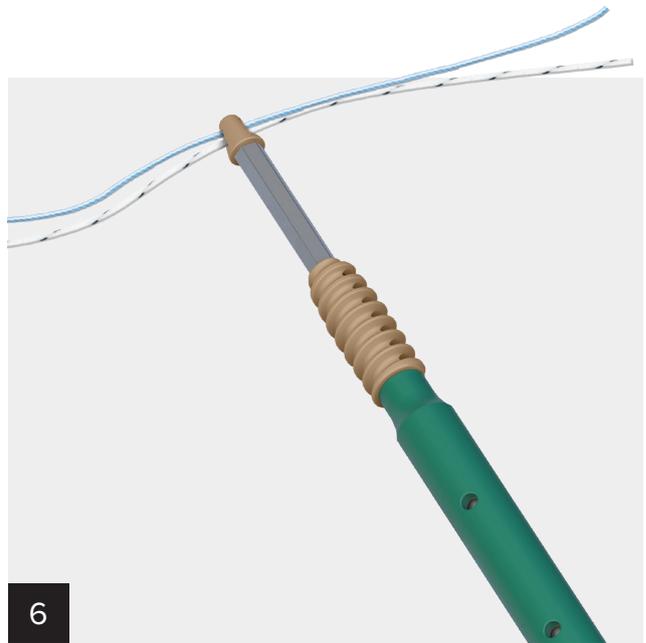
**Note: To remove the driver, unwind the #2 FiberWire® tip retention suture that holds the PEEK eyelet in place during anchor insertion and pull the inserter out. Remove the retention suture from the anchor.**



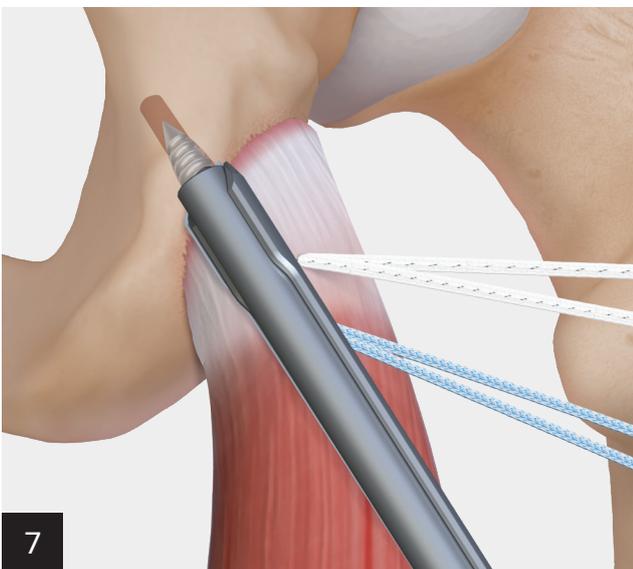
Load the wire loop of a free needle with the 2 mm blue FiberTape suture and pass the single limb of the swedged FiberTape suture through the posterior portion of the hamstring tendon **(5)**. Repeat this using the black/white 2 mm FiberTape suture from the anterior anchor to pass through the anterior portion of the tendon. Cut the single limbs of each FiberTape suture slightly below the swedged portion of the stitch so they each become two limbs **(5a)**.



**Optional technique for steps 5 and 5a:** Leave the #2 FiberWire® retention sutures inside the SwiveLock® anchors and pass them through the tendon for initial reapproximation. The #2 FiberWire sutures can be passed and tied next to the FiberTape® sutures to be used to bridge proximally as additional points of fixation.



Retrieve one limb of blue FiberTape suture and one limb of black/white FiberTape suture and load through the eyelet of the third PEEK SwiveLock anchor. Clamp the sutures with a hemostat after they are loaded through the eyelet.



Assemble the modular drill guide and repeat the same drilling and tapping in steps 1 through 3 for the proximal posterior anchor hole. After drilling and tapping are complete, twist the inner drill guide sleeve counterclockwise to remove it from the open drill guide.

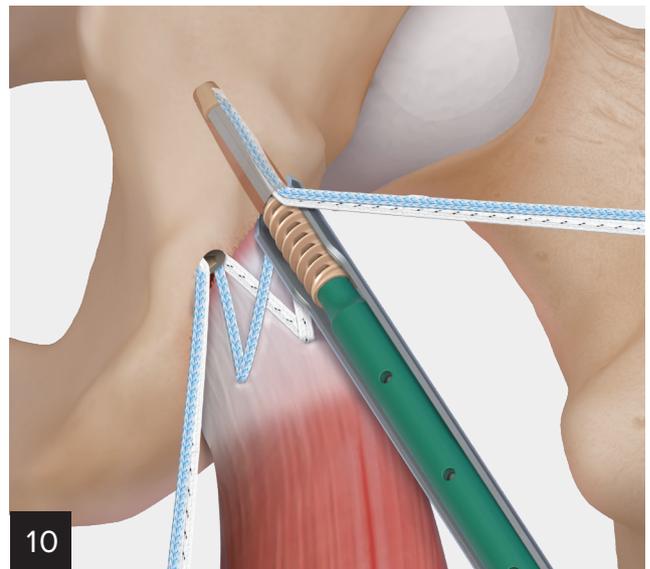


Adjust the tension of the sutures and introduce the 4.75 mm PEEK SwiveLock anchor through the open drill guide until the tip of the anchor is inserted into the prepared bone socket. Remove the open drill guide and insert the anchor until the anchor body contacts the bone. Do not attempt to adjust tension while the eyelet is in the hole. Unclamp the hemostat and insert the SwiveLock anchor, making sure the anchor is flush to the bone prior to removing the handle.



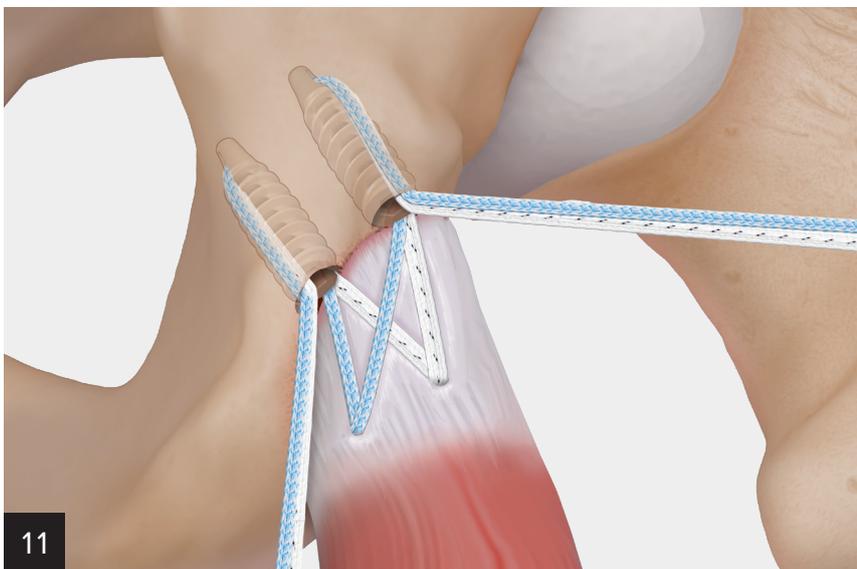
9

Retrieve one limb of blue FiberTape® suture and one limb of black/white FiberTape suture and load through the eyelet of the fourth PEEK SwiveLock® anchor. Clamp the sutures with a hemostat after they are loaded through the eyelet.



10

Repeat steps 7 through 8 for insertion of the final proximal anterior anchor.



11

Remove the retention sutures from the proximal row of anchors and cut the four limbs of FiberTape suture to complete the repair.



12

Final fixation.





## Ordering Information

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Product Description	Item Number
Hip SpeedBridge™ Implant System w/ PEEK SwiveLock® Anchors	AR-2924PHR

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.

## References

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1. Moatshe G, Chahla J, Vap AR, et al. Repair of proximal hamstring tears: a surgical technique. *Arthrosc Tech.* 2017;6(2):e311-e317. doi:10.1016/j.eats.2016.10.004
2. Gerhardt MB, Assenmacher BS, Chahla J. Proximal hamstring repair: a biomechanical analysis of variable suture anchor constructs. *Orthop J Sports Med.* 2019;7(2):2325967118824149. doi:10.1177/2325967118824149



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