

Canine Cranial Cruciate Ligament Repair Anchor System

Surgical Technique

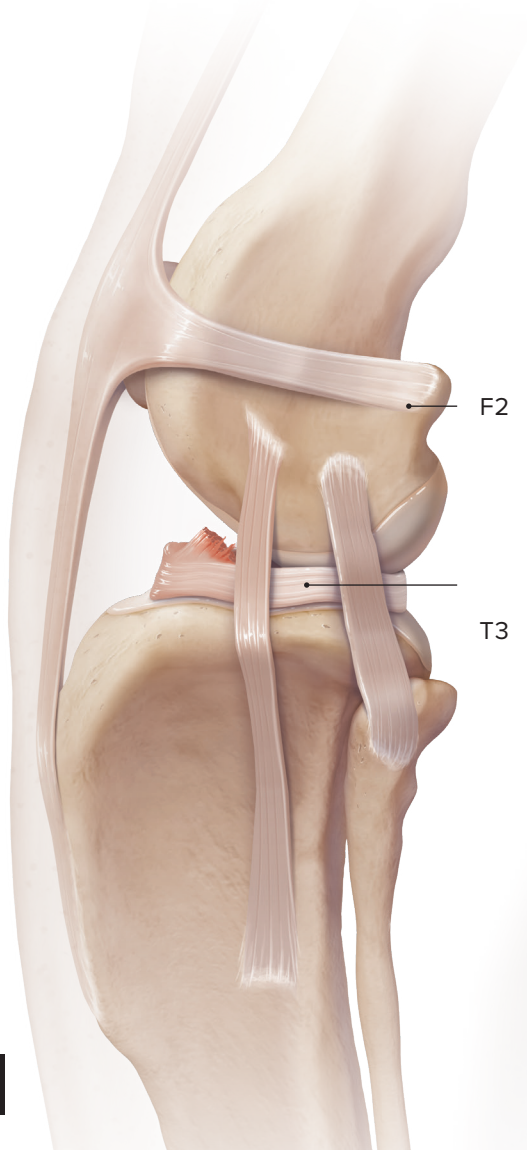


Arthrex[®]
Vet Systems

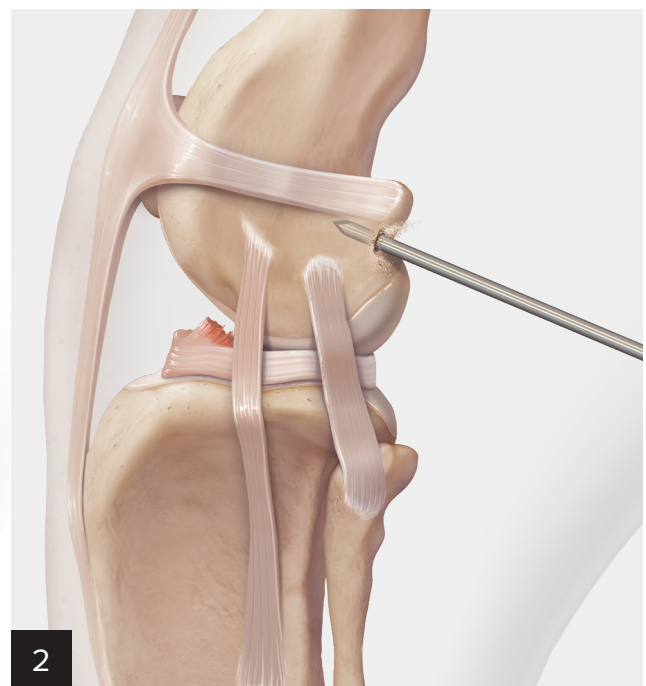
Surgical Technique

Position the patient in lateral or dorsal recumbency under general anesthesia. Perform a hanging limb technique with aseptic preparation and appropriate draping. A stockinette or adherent impervious drape is recommended to keep the suture from coming in contact with the skin.

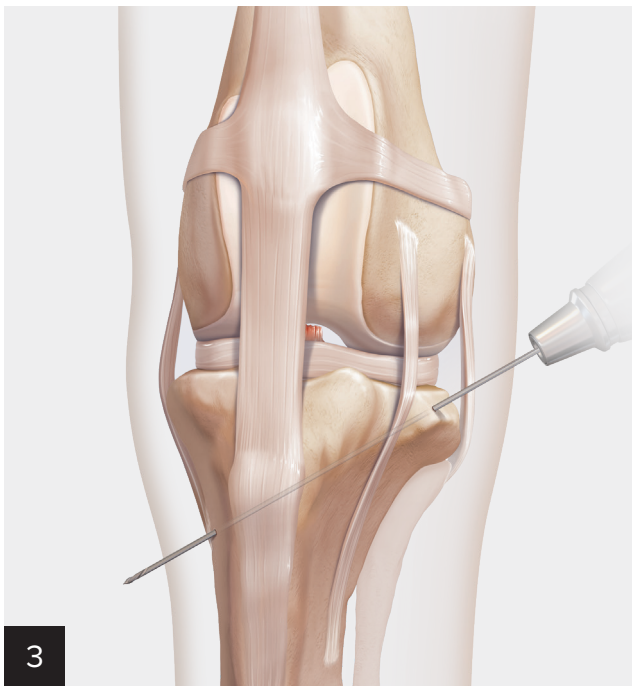
Perform a lateral parapatellar approach with arthrotomy and thoroughly explore the internal structures of the joint. The pathologic ligament and meniscus should be treated appropriately. Using standard technique, lavage the joint and close the joint capsule incision.



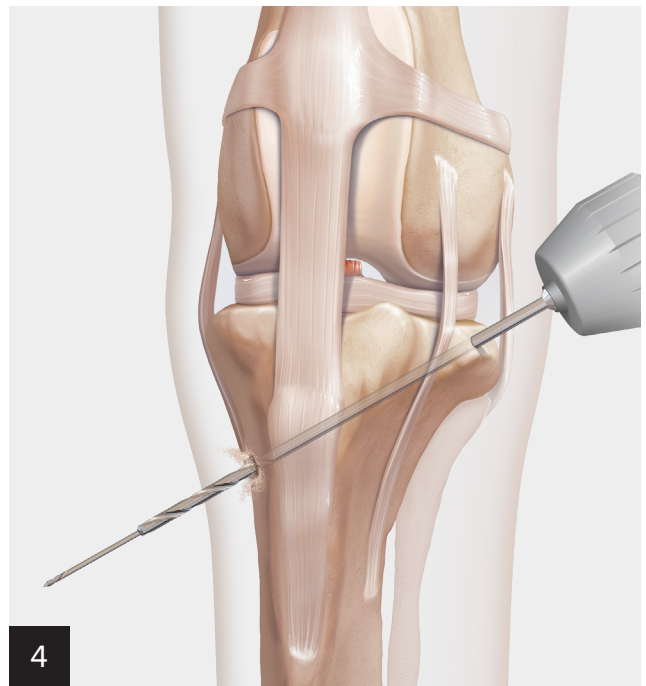
This illustrated stifle joint shows the recommended isometric sites for suture anchorage in the femur and tibia. In the femur, the isometric position is located caudally below the level of the distal pole of the fabella (F2). In the tibia, the isometric site is located 1-3 mm caudal to the bony protuberance, which forms the caudal wall of the sulcus for the long digital extensor tendon (T3).



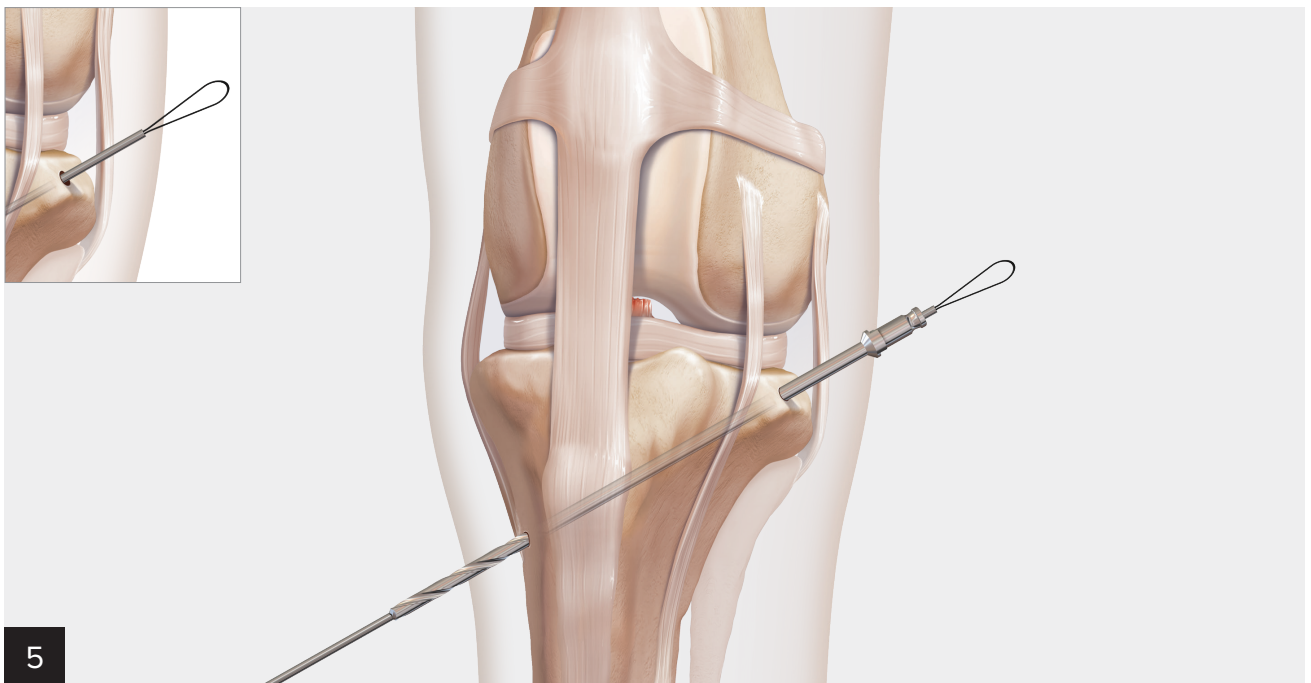
Locate the F2 site by palpating the distal pole of the lateral fabella and make a small incision to expose the caudolateral surface of the femoral condyle. Predrill a pilot hole with a noncannulated 2 mm drill bit in a cranioproximal direction towards the trochlea about 15 mm deep.



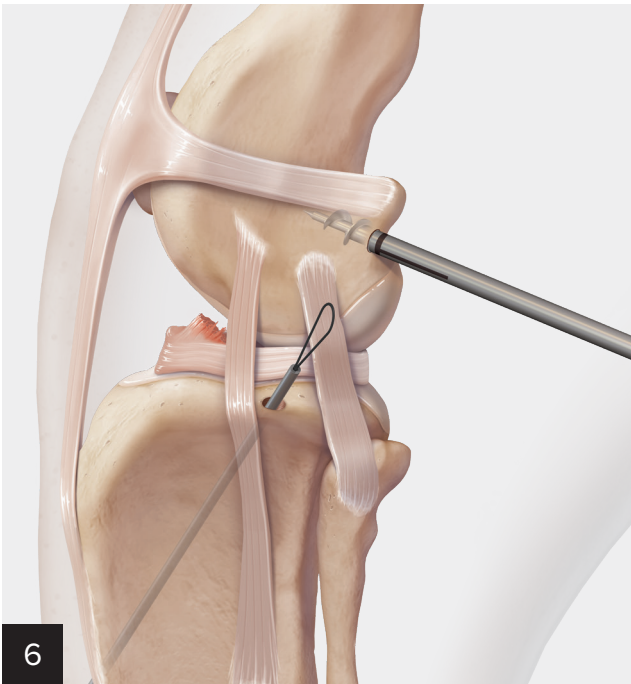
Locate the T3 site by palpating the bony protuberance, which forms the caudal wall of the sulcus for the long digital extensor (LDE) tendon. The T3 site is located at the peak of the LDE groove, just caudal to the LDE. Drill a tunnel with a 0.045-inch guidewire, which will pass beneath the sulcus and exit the caudomedial cortex of the proximal tibia.



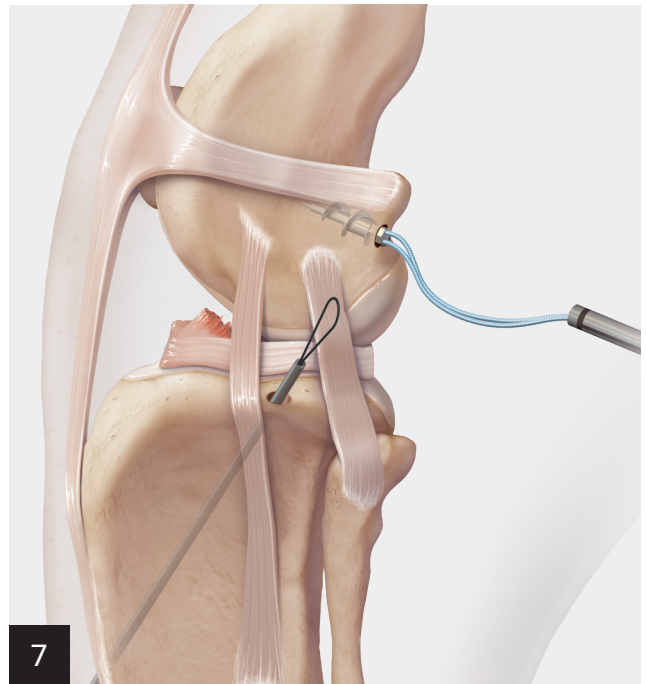
Place a 2 mm cannulated drill bit over the guidewire and drill through the bone. Leave the cannulated drill bit in place and remove the drill from the drill bit. Remove the guidewire and leave the cannulated drill bit in place.



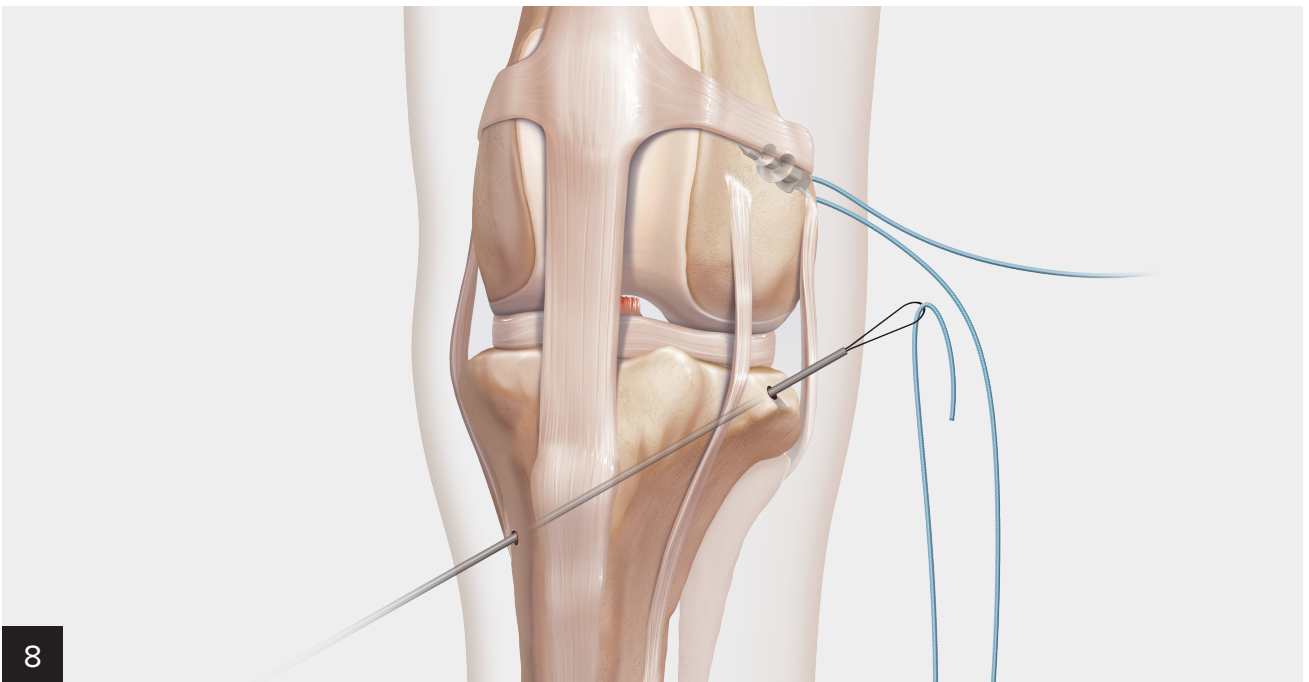
Advance the nitinol suture passing wire into the cannula of the drill bit, blunt tip first, until the looped end exits the top of the drill bit on the lateral side (inset). Remove the drill bit, but leave the passing wire in place. Secure the nitinol suture passing wire to keep it from slipping out of the tunnel.



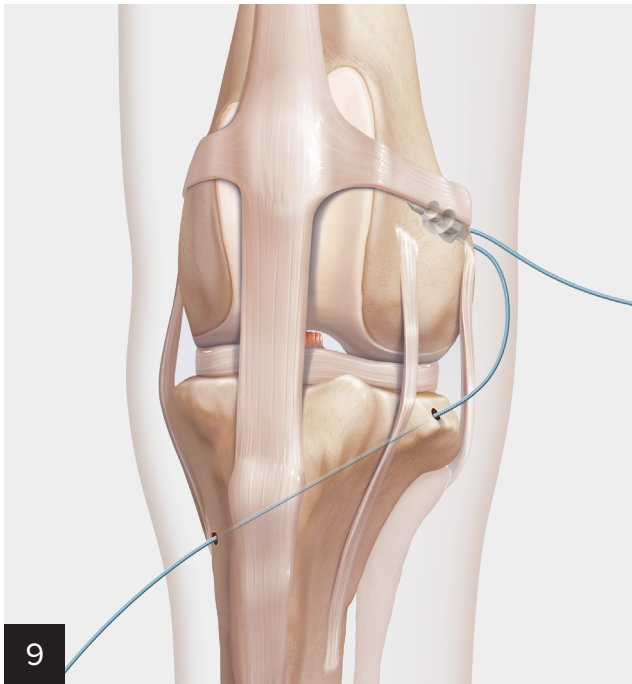
Insert the anchor in a cranioproximal direction towards the trochlea. Advance the anchor until the circumferential laser line is flush with the surrounding bone and the straight laser lines are pointing toward the tibial anchorage site.



Unwrap the suture from the handle and remove the driver from the anchor by pulling back on the handle. The anchor is seated firmly, so you may need to use some force to remove the anchor driver.

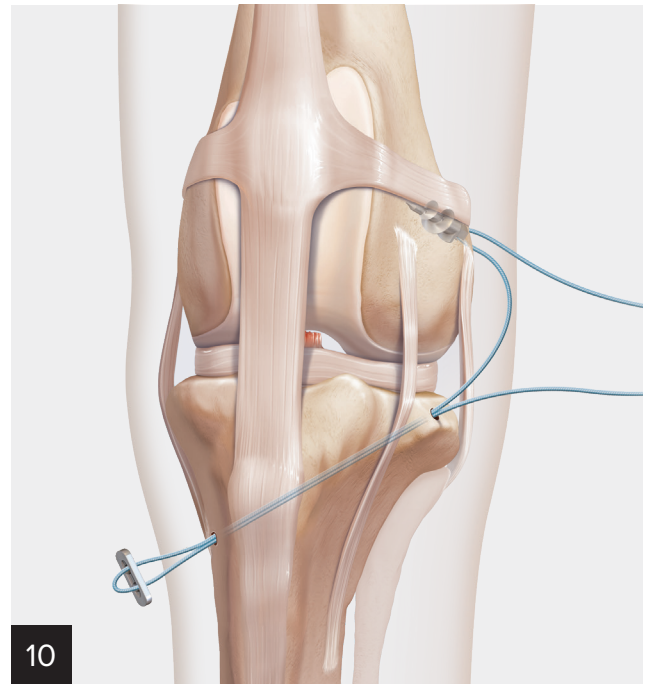


Pass up to 1 inch of suture through the eyelet of the nitinol suture passing wire and pull it slowly but firmly through the tibial tunnel. It helps to bend the suture over itself before passing it through the tunnel. Make sure no soft tissue is pulled into the tunnel as it may cause the nitinol loop to break.



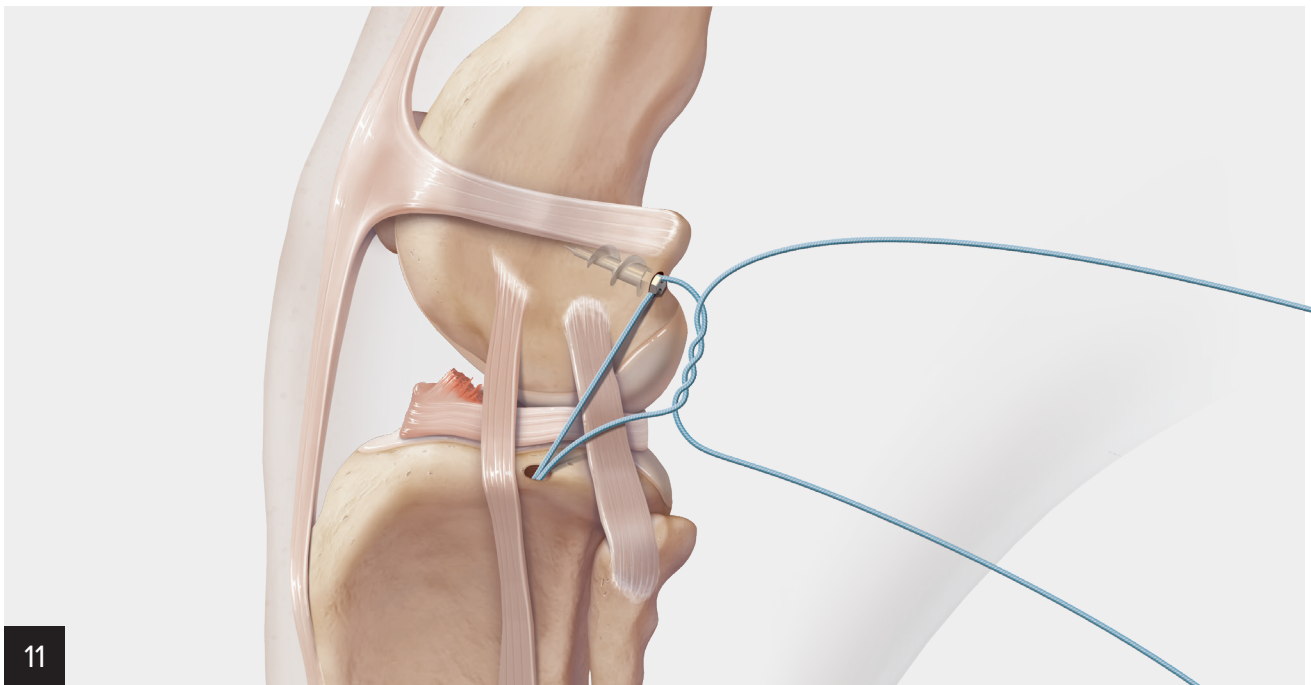
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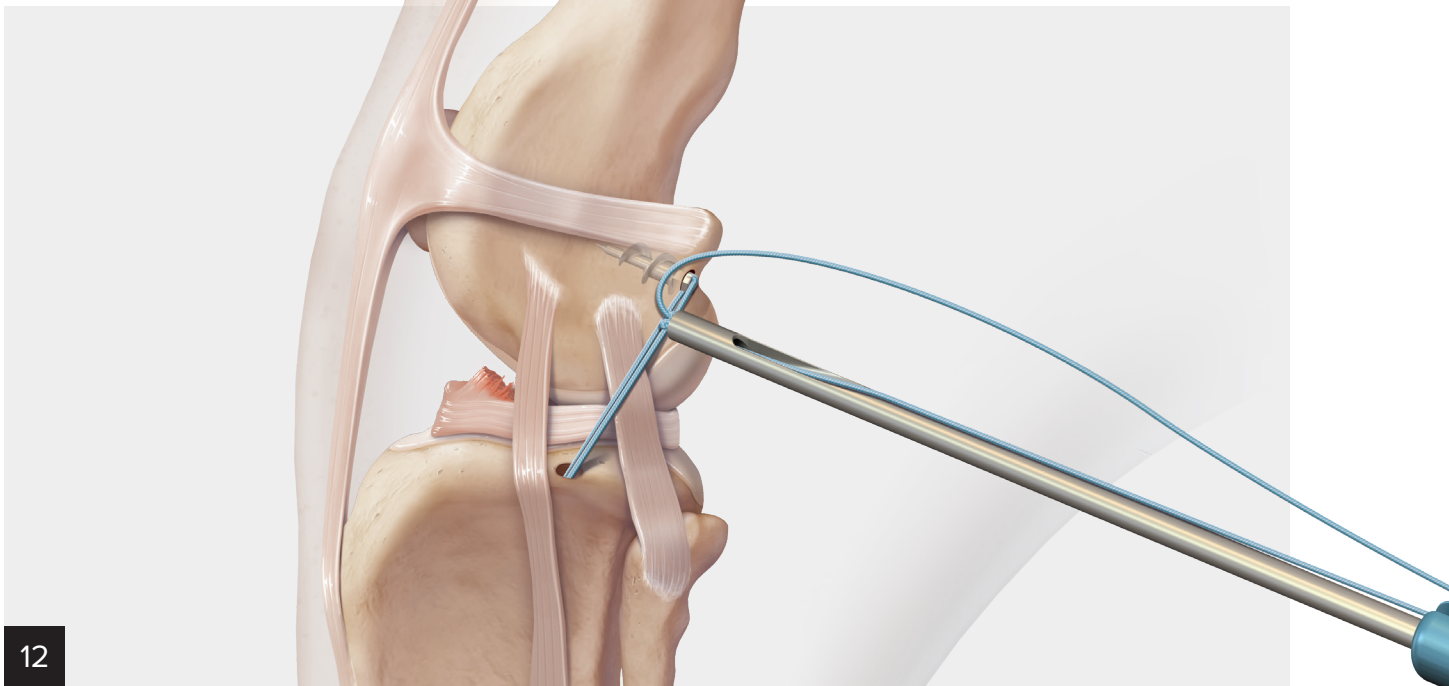
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Load the button onto the suture by placing the tip of one of the sutures up one hole and down the other. Place the nitinol suture passing wire back into the tibial tunnel with the looped end on the medial side and pass up to 1 inch of suture through the eyelet. Pull the suture slowly but firmly through the tunnel.



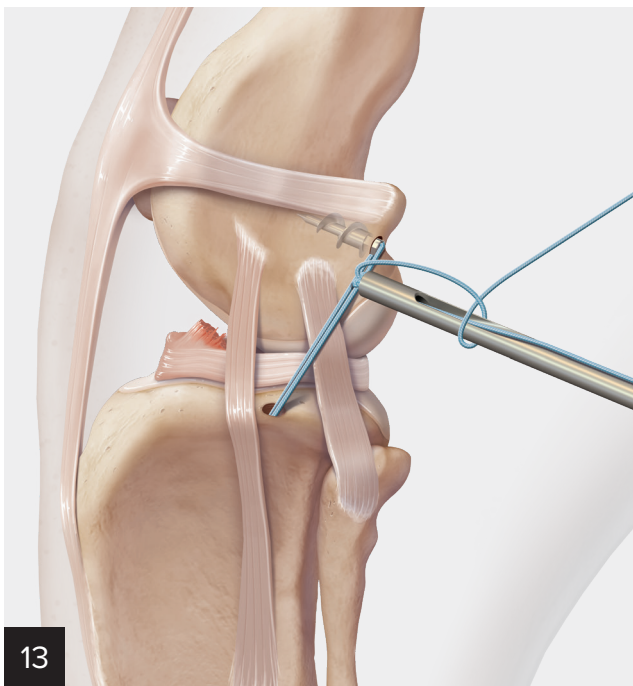
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Stabilize the joint by pulling the suture limbs to the desired tension and tie a surgeon's knot. You can clamp the knot to check for joint stability before backing the knot up with half hitches. When the joint is stabilized, remove the clamp and tie 4-6 additional half hitches. Cut the excess suture.



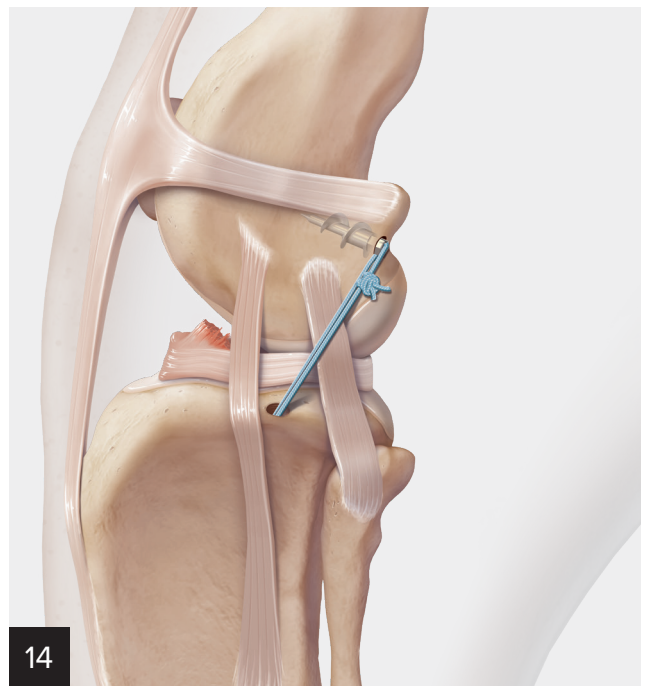
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If using the suture tensioner, start the double loops of the surgeon's knot and advance one limb of suture through the eyelet of the tensioner. Tension to the desired level.



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Slide a half hitch down the shaft of the suture tensioner to engage the knot under tension. Remove the tensioner and apply 4-6 additional half hitches to the knot. Cut the excess suture.



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Check again for joint stability. Imbricate the fascia over the suture and close routinely.

Postoperative Rehabilitation of the CCL Deficient Stifle Joint

- Rehabilitation begins with early pain management using modalities such as cryotherapy, massage therapy, and cold laser therapy.
- Supervised restricted activity is paramount for optimal outcomes. Restricted activity is continued for 8 weeks following surgery or until released for free activity by the attending veterinarian.
- When outside, your pet must have activity limited to that on a leash. Begin with 4-6 short walks (about 5-10 minutes) the first postoperative week. Walk at a pace that encourages weight-bearing with the operated leg. Initially, the pace will be very slow but as your pet becomes more comfortable, the pace and distance will increase.
- In the second week following surgery, use a physio-ball or balance board. Applying either or both modalities for 10 minutes twice daily is an excellent activity for strength and balance training.
- Beginning 3 weeks after surgery, start walking through grass. This maneuver increases flexion and extension of the stifle joint. Gradually increase the height of the grass until it is slightly above the level of the tarsal joint.
- Aquatic therapy, such as swimming and underwater treadmill exercise, is an additional modality that can help achieve an optimal outcome. Consult a rehabilitation practitioner for additional information regarding these modalities.
- Benefits of rehab include improved owner compliance, reduced risk of reinjury during the recovery phase, and optimal return to clinical function.

Ordering Information

| Product Description | Item Number |
|---|--------------|
| Suture tensioner with tensiometer | VAR-1529 |
| FiberWire® scissor | VAR-11796 |
| 5 mm Corkscrew® suture anchor with #5 FiberWire® suture, 25-55 lbs. | VAR-2100 |
| 2.8 mm FASTak™ Suture anchor with #2 FiberWire suture, 5-25 lbs. | VAR-2200 |
| 2.8 mm FASTak suture anchor | VAR-2201 |
| Suture passing wire, nitinol | VAR-1255-08 |
| Suture button, 3.5 mm × 11 mm | VAR-8920 |
| Cannulated drill bit, 2 mm | VAR-8933-20C |
| Guidewire (K-wire), 0.045 in | VAR-8933K |



This is not veterinary advice and Arthrex recommends that veterinarians be trained in the use of any particular product before using it in surgery. A veterinarian must always rely on his or her own professional clinical judgment when deciding whether to use a particular product. A veterinarian must always refer to the package insert, product label and / or instructions for use before using any Arthrex product. Products may not be available in all markets because product availability is subject to the regulatory or veterinary practices in individual markets. 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. Please contact your Arthrex representative if you have questions about availability of products in your area.



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US patent information

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