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SURGICAL TECHNIQUE

## **Canine Cranial Cruciate Ligament Repair Kit**

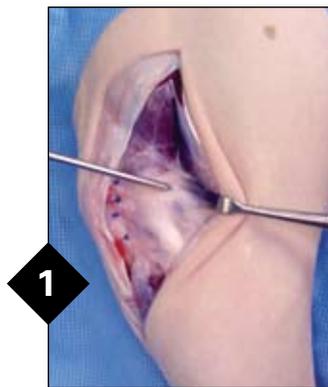


## Surgical Technique

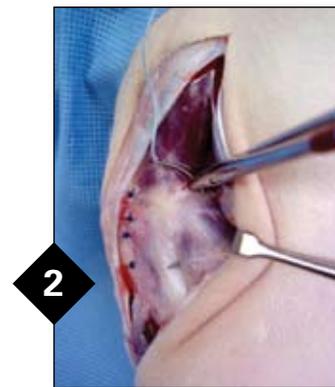
The patient is positioned in lateral or dorsal recumbency under general anesthetic. A hanging limb technique with aseptic preparation and appropriate draping should be performed.

A lateral parapatellar approach with arthrotomy is performed and complete exploration of the stifle joint is completed. Pathologic ligament and meniscus should be treated appropriately. The joint is thoroughly lavaged and the joint capsule closed.

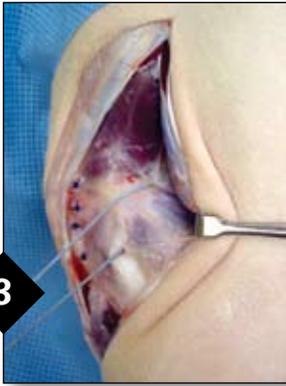
*Developed in conjunction with  
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Columbia, Missouri.*



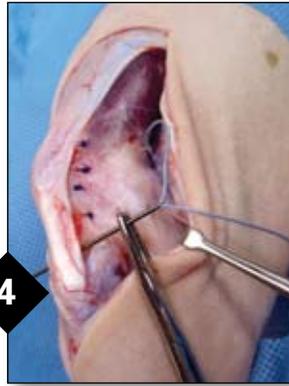
After the joint capsule is closed, a combination of sharp and blunt dissection is used to separate the vastus lateralis and biceps femoris muscles and retract the biceps caudally (Senn retractor) to allow for exposure and palpation of the lateral fabella (pin pointing to it).



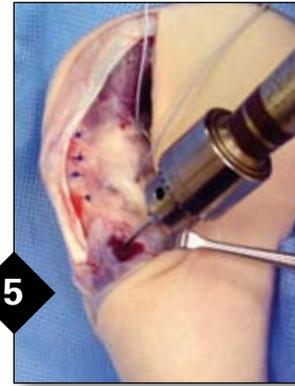
The curved needle on the Canine Cruciate Suture is then placed with the tip on the midpoint of the lateral fabella and “walked” proximally until it can be inserted between the fabella and femur and passed completely around the fabella from proximal to distal.



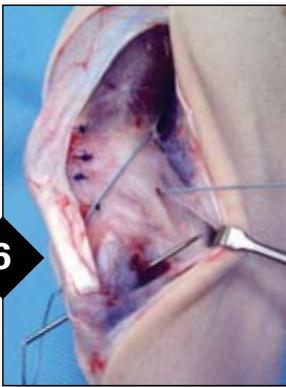
It is important to make sure the needle is around the fabella and not caudal to it. This can be verified after suture placement by pulling on both strands of the suture to ensure they are around the bone of the fabella and not soft tissues caudal to it. It is also important to minimize the amount of soft tissue encompassed in the suture throw, paying particular attention to the peroneal nerve distally. The curved needle on the Canine Cruciate Suture is designed to help promote correct placement.



The straight needle on the Canine Cruciate Suture is passed deep to the patellar ligament from lateral to medial at the most distal point possible. The suture should be caudal to the ligament and cranial to the fat pad.



A 2-3 mm hole is drilled in the proximal tibia using a pin and Jacob's chuck or drill bit and drill. The location of the hole should be immediately distal to Gerdy's tubercle and immediately proximal to the point of origin of the cranial tibial muscle. The hole should be slightly angled caudoproximal to craniodistal to match the final direction of the suture.



As the pin or drill is removed, the straight needle on the Canine Cruciate Suture is inserted in the tibial hole from medial to lateral, and the suture is advanced to allow for easy tying.



Both needles are cut from the Canine Cruciate Suture and the suture is tied at the desired tension so as to prevent abnormal cranial drawer and internal rotation. The stifle is then put through a range of motion to ensure the suture has been placed correctly and is not impinging on periarticular structures. The area is lavaged.



The lateral fascia is closed with the imbricating pattern of choice. Routine subcutaneous tissue and skin closures are performed.

Postoperatively, the patient is typically bandaged for a minimum of 24 hours. Exercise restriction with controlled physical rehabilitation is recommended through 12 weeks after surgery.

# Revolutionizing Orthopaedic Surgery

FiberWire suture is constructed of a multi-stranded long chain ultra-high molecular weight polyethylene core with a polyester braided jacket that gives FiberWire superior strength, soft feel and abrasion resistance that is unequalled in orthopaedic surgery. Suture breakage during knot tying is virtually eliminated, especially critical during arthroscopic procedures. FiberWire represents a major advancement in orthopaedic surgery.

## Strength

FiberWire has greater strength than comparable size standard polyester suture. Multiple independent scientific studies document significant increases in strength to failure, stiffness, knot strength and knot slippage with much less elongation<sup>1</sup>.

## Tie Ability and Knot Profile

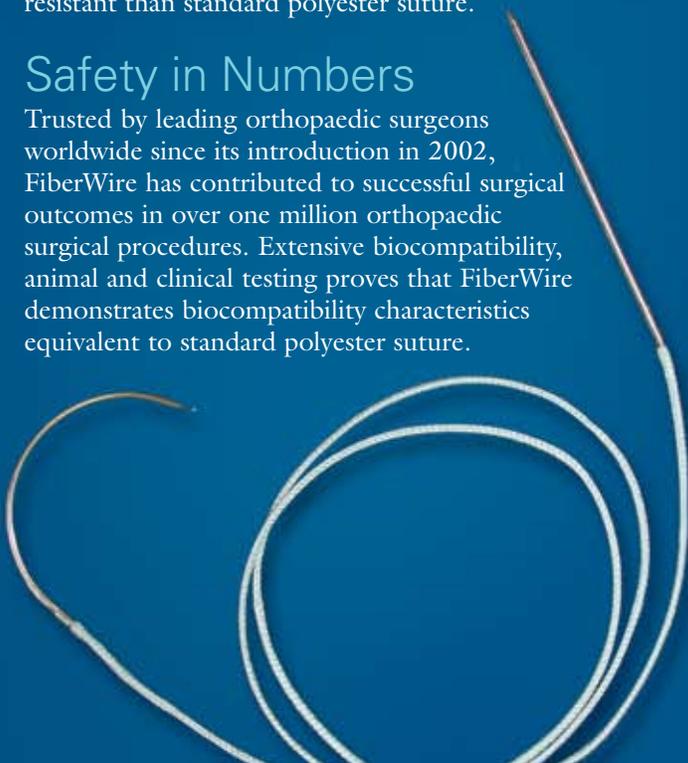
Superior strength allows tighter loop security during knot tying, increasing knot integrity while reducing the knot profile compared to standard polyester suture.

## Abrasion Resistance

The multi-strand long chain ultra-high molecular weight polyethylene core dramatically increases FiberWire abrasion resistance. Surgical procedures that create bone edges, tunnel edges, and articulating surface abrasion areas are appropriate indications for FiberWire. FiberWire is over five times more abrasion resistant than standard polyester suture.

## Safety in Numbers

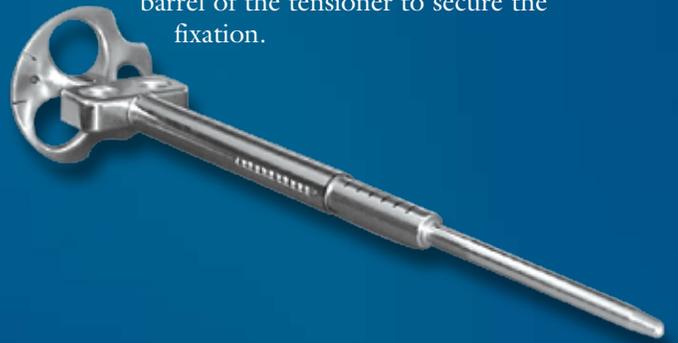
Trusted by leading orthopaedic surgeons worldwide since its introduction in 2002, FiberWire has contributed to successful surgical outcomes in over one million orthopaedic surgical procedures. Extensive biocompatibility, animal and clinical testing proves that FiberWire demonstrates biocompatibility characteristics equivalent to standard polyester suture.



## FiberWire Tensioner

The FiberWire Tensioner provides controlled tensioning option of FiberWire loops during knot tying. When reapproximating soft tissue, the blunt tip keeps the knot in place while the tensioning wheel and spring mechanism gently tension the loop to tighten the repair.

The tensioning wheel is then turned in a counter-clockwise fashion as the tension meter is read. Once the desired amount of tension/reduction is achieved, three reverse half-hitches can be thrown down the barrel of the tensioner to secure the fixation.



## FiberWire Scissor

The FiberWire Scissor was designed to cut any size or style suture, especially FiberWire, in open surgical cases where an arthroscopic suture cutter is not necessary. With its specially designed cutting edges, it can cut FiberWire cleanly and effortlessly without frayed edges.



### ORDERING INFORMATION

Canine Cruciate Suture	VAR-2000
FiberWire Tensioner	AR-1929
FiberWire Scissor	AR-11796

#### References:

<sup>1</sup> Burkhardt SS. *Arthroscopic Knots: The Optimal Balance of Loop Security and Knot Security*. Arthroscopy 2004; 20.



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*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 Vet Systems 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.*

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