

Canine Stifle Distractor

Surgical Technique



Arthrex[®]
Vet Systems

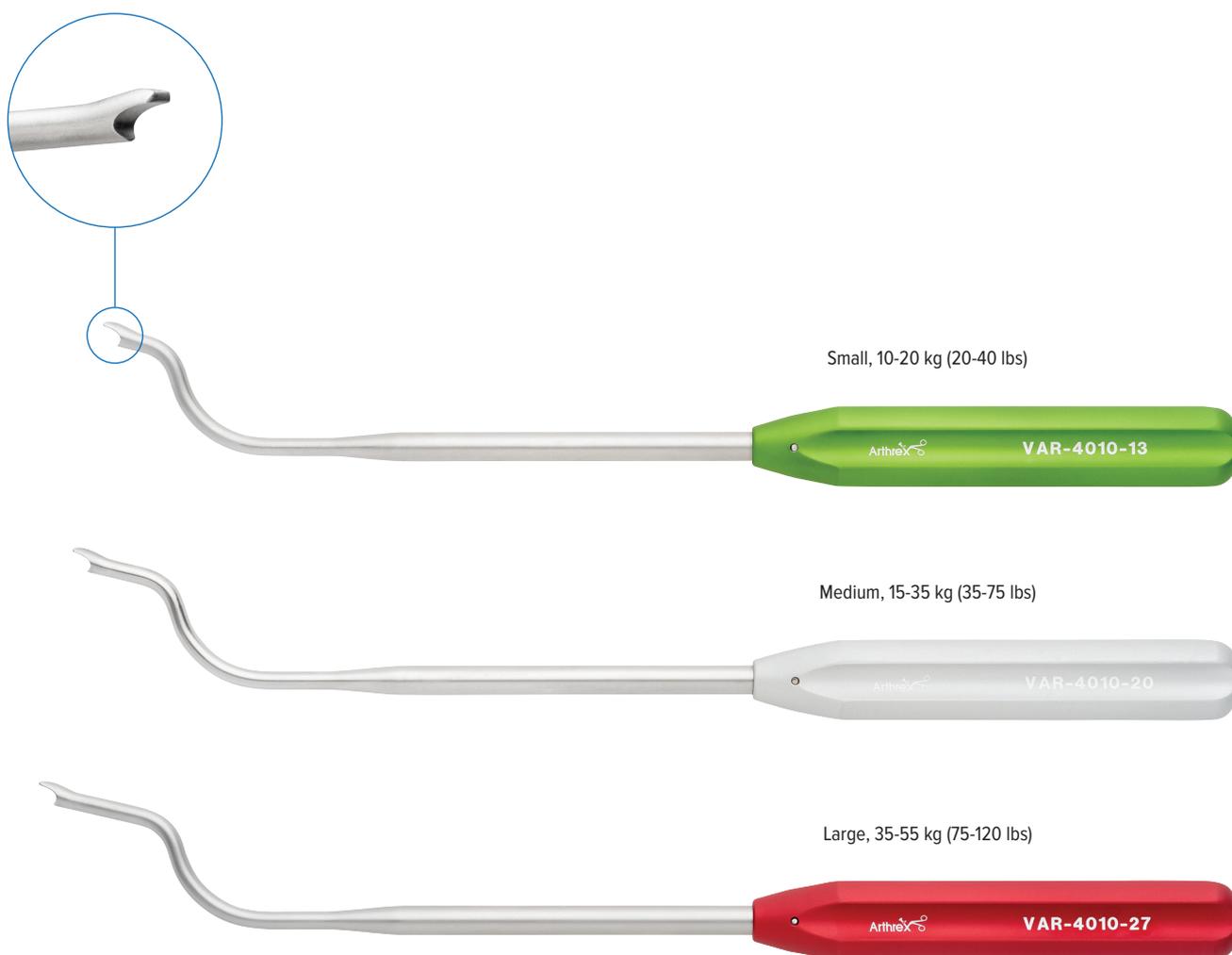
Canine Stifle Distractor

Meniscal tears in canines have increased lameness relative to dogs with cruciate injury alone. Additionally, meniscal tears that occur subsequent to surgery are a common cause of postoperative lameness. Meniscal tears occur commonly in conjunction with cranial cruciate ligament (CrCL) rupture, with a reported incidence between 33.2% and 77%. Dogs presenting with CrCL rupture and concurrent meniscal injuries have lower weightbearing versus dogs with an intact meniscus. Additionally, latent meniscal tears are a common cause of postoperative lameness following surgery for CrCL rupture. Thus, careful evaluation of the stifle joint is critical in all dogs with CrCL insufficiency.

Meniscal tear detection is often affected by poor exposure. In an ex vivo study investigating the

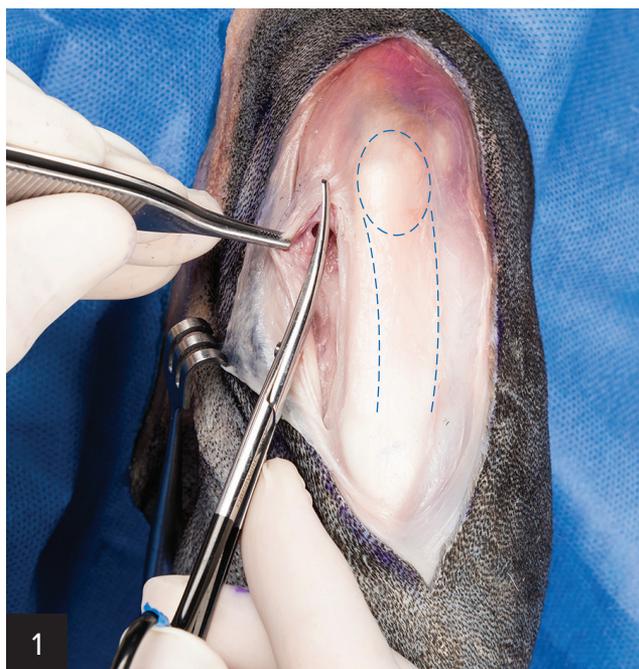
diagnostic accuracy of arthrotomy and arthroscopy, it was found that 20% to 80% of meniscal tears could be missed because lack of exposure of the caudal horn of the medial meniscus.^{*} The Arthrex Canine Stifle Distractor was developed to provide both subluxation and distraction to increase meniscal exposure while minimizing damage to intra-articular structures.

The Canine Stifle Distractor is available in three sizes, which can be easily distinguished by different colors. The following guidelines for selecting the distractor are based on body weight although size of the joint may be more of an appropriate criterion. The Small and Mini Joint Distractors are intended to give the surgeon a second option for joint distraction when an extra-articular device is needed.

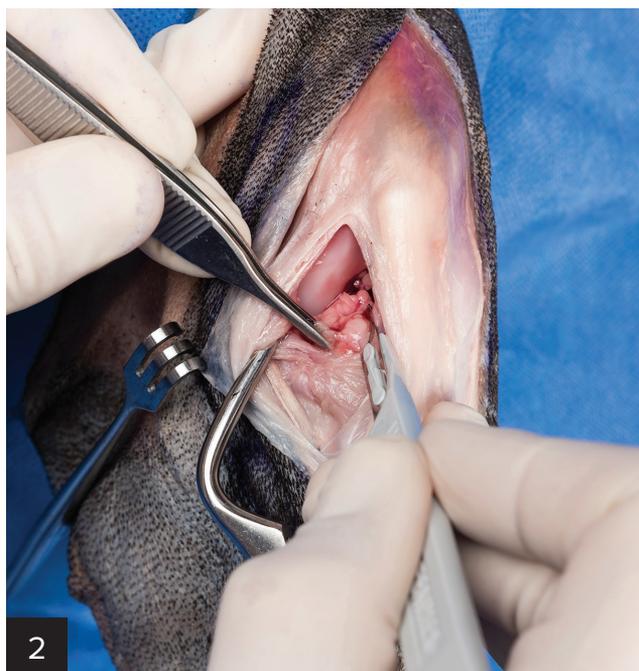


^{*}Pozzi A, Hildreth BE 3rd, Rajala-Schultz PJ. Comparison of arthroscopy and arthrotomy for diagnosis of medial meniscal pathology: an ex vivo study. *Vet Surg.* 2008;37(8):749-755. doi:10.1111/j.1532-950X.2008.00442.x

Limited Parapatellar Arthrotomy



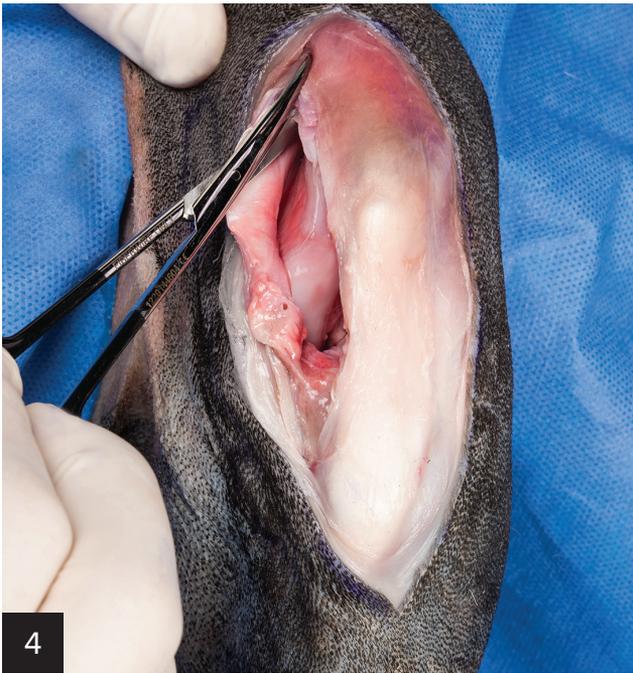
Place the patient is placed in dorsal recumbency and perform a sterile hanging limb prep. For a limited medial parapatellar arthrotomy, make a stab incision approximately 4 mm medial to the patellar tendon. Extend the incision distally to the tibial tuberosity and proximally to the distal pole of the patella, sparing the majority of the parapatellar ligament.



Place a small Gelpi retractor to distract the arthrotomy. Using a scapel, excise a portion of the infrapatellar fat pad to improve visualization.



Use a Senn retractor to further retract the fat pad and expose the CrCL.



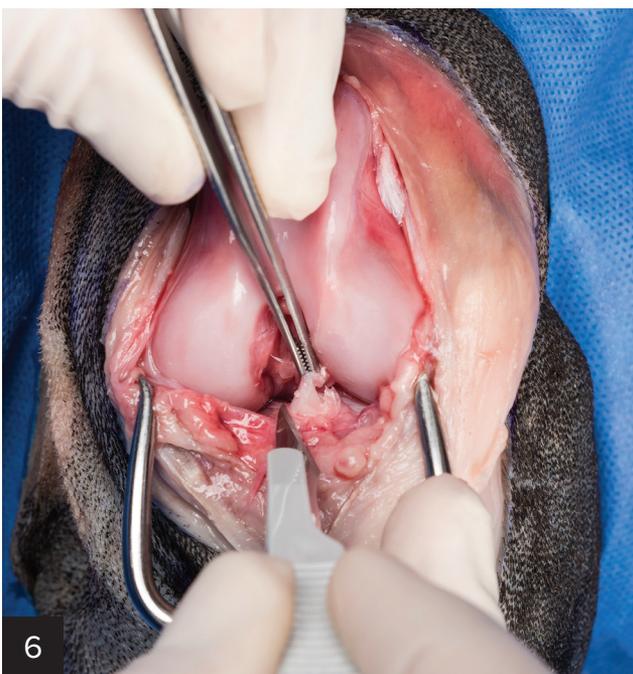
4

If a full parapatellar arthrotomy is required, extend the joint incision through the parapatellar cartilages and into the proximal joint compartment.



5

Next, luxate the patella laterally to expose the femoral condyles and the trochlear groove.



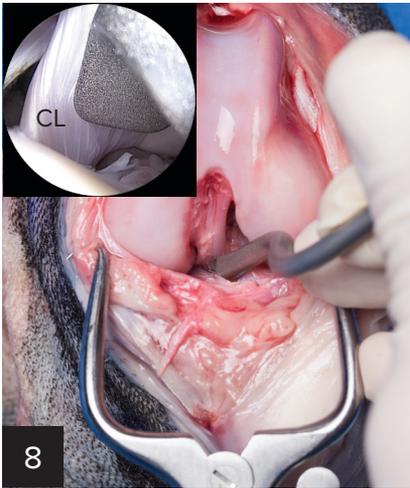
6

Excise torn fibers of the CrCL with a #11 blade. Make the first incision at the insertion on the cranial tibia. Note scalpel blade orientation, which avoids damage to the medial meniscus.



7

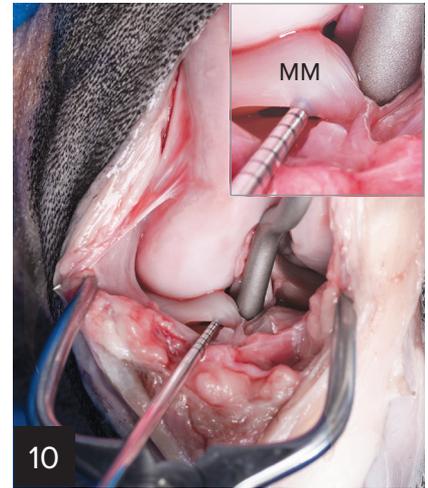
Grasp the cruciate remnant and cut it from its origin on the lateral femoral condyle. Hold the scalpel blade vertically and keep it lateral to avoid damage to the caudal cruciate ligament.



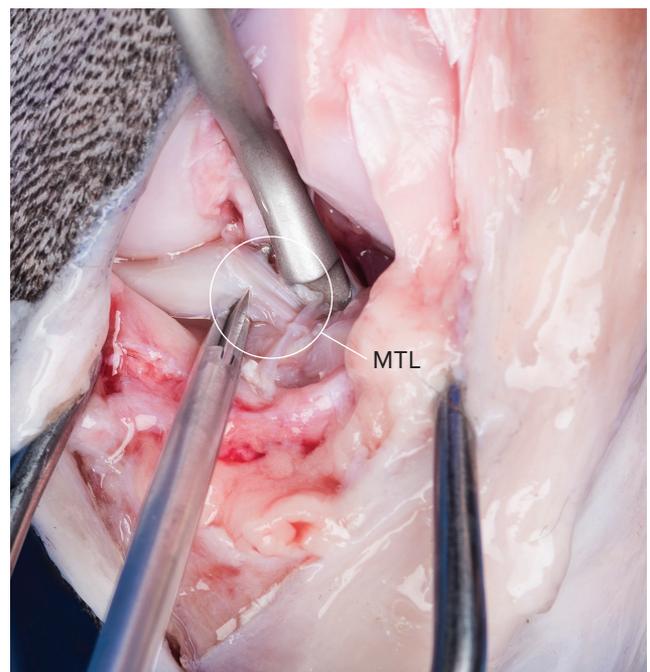
Canine Stifle Distractor Placement
Place the Canine Stile Distractor tip just cranial to the caudal cruciate ligament (CL) to engage the caudal edge of the tibial plateau.



Place the curved portion of the distractor into the intercondylar notch to achieve joint distraction.

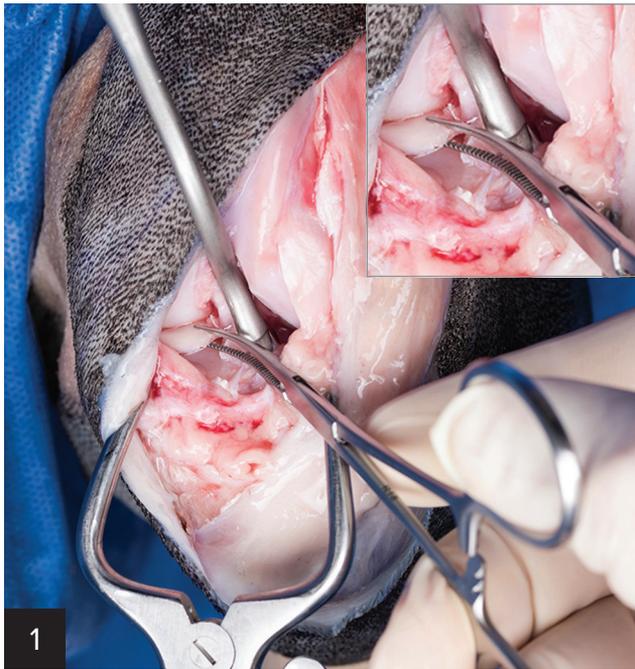


Lever the distractor to induce cranial displacement of the tibia with simultaneous widening of the joint space. Then, carefully palpate the medial meniscus (MM) using a right-angled probe.



A medial meniscal release at the caudal meniscal tibial ligament (MTL) is shown. Distract the joint and hook the meniscal tibial ligament with the Meniscal Probe Cutter. Take care to visualize the tip of the cutter to ensure the caudal cruciate ligament (CL) is not damaged when the blade is deployed. Ensure that a complete release of the caudal pole has been performed by using a right-angled probe to palpate.

Caudal Pole Meniscectomy



A “bucket handle” meniscal tear is shown. Grasp the axial part of the meniscus with a mosquito or Kocher forceps.



Cut the abaxial portion of the tear using a #11 blade.



In the arthroscopic technique, place the distractor just proximal to a lateral scope portal. Use a medial instrument portal.



Place the Canine Stile Distractor through a lateral portal at the distal pole of the patella. A hemostat may be used to dilate the stab incision to ease introduction of the distractor.



Using arthroscopic guidance, place the tip of the distractor on the caudal edge of the tibial plateau just cranial to the caudal cruciate ligament.



Have an assistant apply pressure on the distractor handle, keeping a firm grip to prevent rotation. This moves the tibia cranially while providing proximal to distal joint distraction.

Extra-articular Distractor

The large extra-articular distractor is another option for joint distraction in dogs weighing less than 10 kg. The choice of this distractor depends on surgeon preference, joint condition, and surgical procedure. Its use should be considered in dogs with a competent partial CCL rupture and when performing meniscal repair. Other applications include joint distraction and compression during joint fusion or fracture management.



1
Palpate the fibular head and tibial tuberosity to place fixation post in the cranial third of the proximal tibial metaphysis.



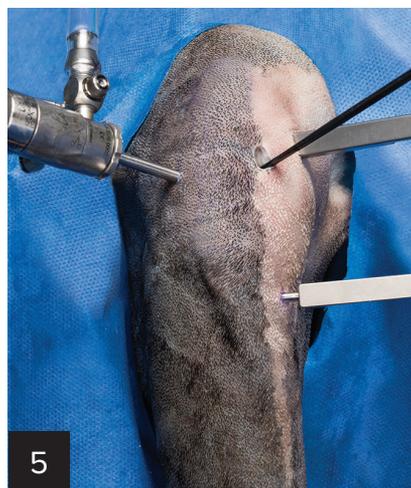
2
Insert a K-wire or a self-tapping fixation post into the central tibia approximately 2 cm distal from the joint surface.



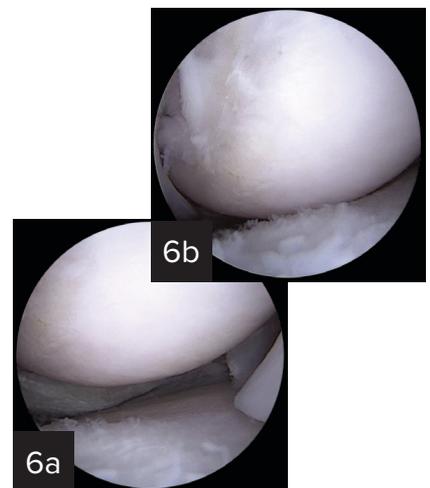
3
Slide the distractor over the fixation post.



4
Drive a pin into the central femoral condyle and cut while palpating the patella and fabella to gain proper placement.

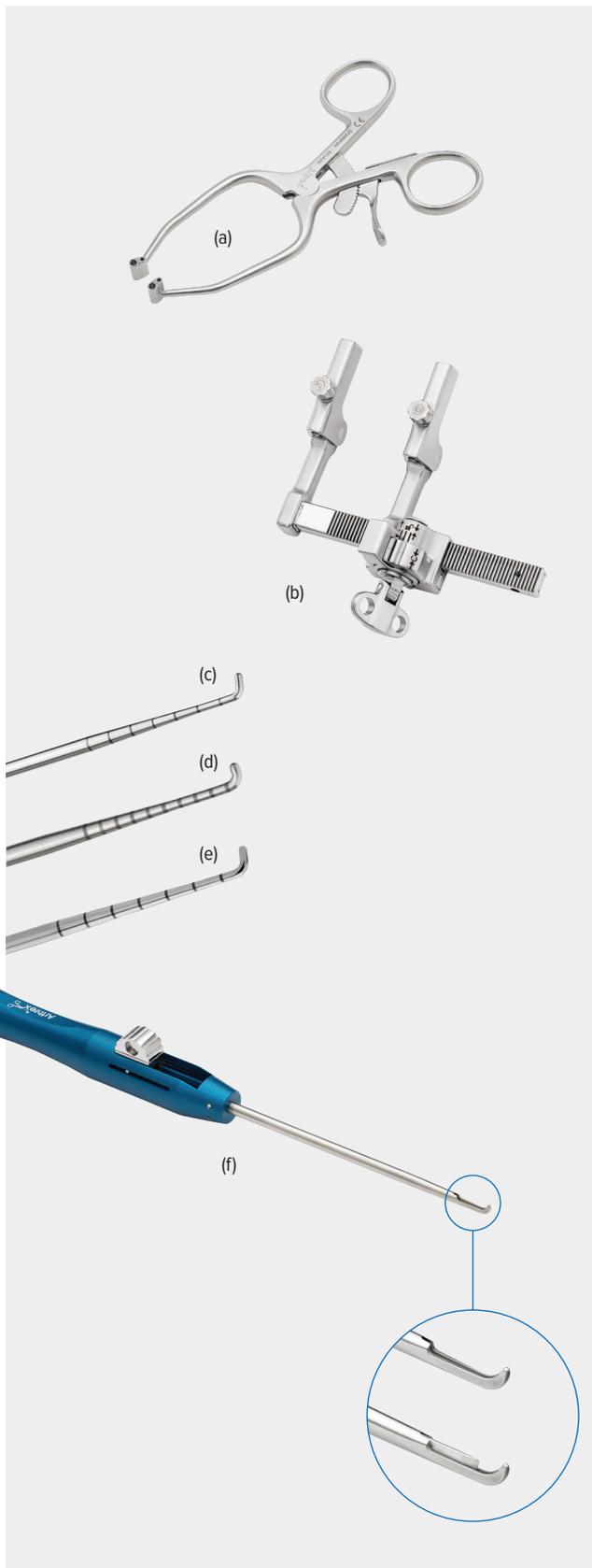


5
Flip the device 180 degrees such that it is held out of the surgical field.



6a
6b
The medial compartment prior to (6a) and following distraction (6b).

Ordering Information



Canine Stifle Distractors

Product Description	Item Number
Stifle Distractor, canine, 13 mm	VAR-4010-13
Stifle Distractor, canine, 20 mm	VAR-4010-20
Stifle Distractor, canine, 27 mm	VAR-4010-27

Small and Mini Joint Distractor

Product Description	Item Number
Small Joint Distractor (a)	AR-8690SD
Mini Joint Distractor/Compressor (b)	AR-8970JD

Mini Joint Distractor Accessories

Product Description	Item Number
Traction Screw, mini joint, 16 mm	AR-8950JD-1
Traction Screw, mini joint, 20 mm	AR-8950JD-2
Probe, stainless steel, 125 mm shaft, 5.4 mm tip (c)	VAR-10010
Hook Probe, small, 71 mm shaft, 3.4 mm tip (d)	VAR-30000
Probe, stainless steel, large handle, 125 mm shaft, 5.4 mm tip (e)	VAR-10020
Graduated Black Probe, 2.5 mm tip length	VAR-5007

Meniscal Probe Cutter

Product Description	Item Number
Probe Cutter Handle (f)	VAR-4001
Probe Cutter Blade, qty. 5	VAR-4000

Disposables

Product Description	Item Number
Guidewire w/ Trocar Tip, 1.1 mm × 150 mm (0.045 in × 5.9 in)	VAR-8933K
Guidewire w/ Trocar Tip, 1.6 mm (0.062 in)	VAR-8941K
Guidewire w/ Trocar Tip, threaded, 1.6 mm (0.062 in)	AR-8941KT
Guidewire w/ Trocar Tip, 1.6 mm × 17.8 cm (0.062 in × 7 in)	AR-8941-7
K-Wire, 2.3 mm (0.092 in)	VAR-8967K
Guidewire w/ Trocar Tip, 2.35 mm × 235 mm (0.092 in × 9.25 in)	AR-8770K
Guidewire w/ Trocar Tip, threaded 2.35 mm × 235 mm (0.092 in × 9.25 in)	AR-8770KT

*The extra-articular Mini Joint Distractor/Compressor is recommended for dogs weighing less than 10 kg (22 lbs) or with cats. In these animals, the Canine Stifle Distractor cannot be used because of the limited joint space. Other applications include hock or carpus distraction when performing arthroscopy.



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 their 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 directions 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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