Cranial Cruciate Ligament Rupture—lateral fabellar suture technique

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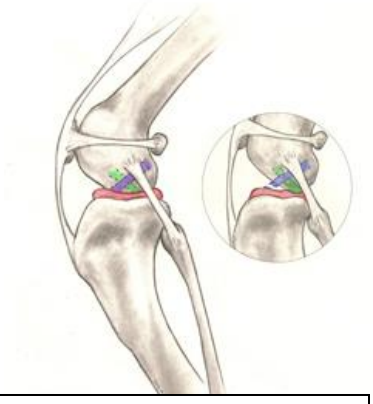
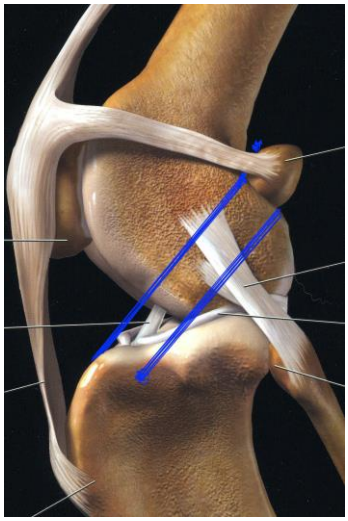
Overview: The cranial cruciate ligament (CCL) is a stabilizing ligament within the stifle (knee) joint. Damage to the CCL is one of the most common orthopedic injuries seen in veterinary medicine. Damage results in lameness, pain, and development of arthritis. Frequently the medial meniscus, a cartilage cushion between the bones of the knee joint, is damaged at the time of the injury, though sometimes it can become damaged later.



Side view of knee joint, with cranial cruciate ligament indicated in purple and the meniscus indicated in pink.

Signs/symptoms: A variable amount of lameness is the most common symptom. Degree of lameness changes with time since the injury, a partially torn v. a completely torn ligament, if the meniscus is concurrently torn or not, and individual animal factors. Other signs may be a "popping" sound in the knee joint, stiffness in joint, difficult rising, and pain.

Diagnosis: Diagnosis is made on palpation. Often the pet will need to be sedated for this. The veterinarian will feel a characteristic "cranial drawer" motion of the femur sliding back and forth relative to the tibia. Radiographs are recommended to evaluate your pet's hips and to rule-out any other concurrent conditions happening in your dog's knee joint.



CCl repair with nylon suture (indicated in blue)

Treatment: Surgical treatment is recommended for all dogs with a ruptured cranial cruciate ligament. There are a number of different techniques that are commonly done; please speak to your veterinarian about the different options and recommendations for your specific pet. The lateral fabellar suture technique is a stabilizing technique that involves placing one or two strands of heavy nylon (external to the joint) that mimic the direction of the cranial cruciate ligament to achieve stabilization. First, the joint is explored to remove the remnants of the ligament and the also to remove the damaged part of the meniscus (if present). Then the stifle is stabilized. Over time, this stabilization allows fibrous (scar) tissue formation that eventually "take over" the job of the stabilizing suture(s)

Aftercare/outcome: Strict exercise restriction at home is a critical part of the pet's recovery for the first 6-8 weeks, followed by a gradual return to activity. Unfortunately arthritis is often present and is progressive over time, though it is variable how much it will affect an individual dog. Studies report that about 33-60% of dogs that rupture one knee will rupture the other side at some point as well. Complications include premature implant stretching or an implant reaction that may require that the implant needs to be removed at a later date.

Please refer to the American College of Veterinary Surgeons website www.acvs.org for additional information or call Dr. Boswell at 269-312-4227