

Lateral Fabellotibial Suture CCL Repair

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Cranial cruciate ligament (CCL) rupture is a very common injury in the dog. The cranial and caudal cruciate ligaments help to stabilize the stifle (knee) as the joint moves through a normal range of motion. The CCL can rupture due to trauma or more commonly as a result of premature degeneration of its structure. When the CCL is injured the femur is free to slide down the tibial slope and push the tibia forward or cranial. This results in pain, inflammation, increased joint fluid (effusion) and eventually arthritis in the joint.

The meniscal cartilages also act as minor stabilizers in the joint. The **medial meniscus** can be injured after CCL rupture. It frequently gets crushed as the tibia slides too far forward. Joint exploration is required to inspect for meniscal injury. The damaged portion of the meniscus is excised to reduce further injury and inflammation. Corrective surgery is then performed to stabilize the joint and return the limb back to function.

The **Lateral Fabellotibial Suture technique (LFS)** stabilizes the CCL deficient stifle by using heavy gauge suture material to replace the stabilizing function of the ligament. The sutures prevent the abnormal forward tibial movement while still permitting flexion and extension of the joint. Over the initial months after surgery the body develops a fibrous tissue reaction around the stifle which ultimately provides more permanent stability.

The fibrous tissue reaction must mature before the dog can return to full activity. Off-leash activity, running and especially jumping must be avoided until the fibrous tissue repair has matured (~3-4 months).

Risk of premature suture loosening and failure of the repair is higher in large breed or overweight dogs or if the dog is too active too soon.

Physical therapy is encouraged after surgery to maintain and strengthen the muscles. Controlled activity and prescribed exercises will help result in successful outcomes after LFS CCL surgery.

The lateral fabellotibial suture technique can return dogs back to activity. It is most beneficial for small and medium breeds, cats, or those that are not overweight or are more sedentary in their lifestyle.

Figure 1

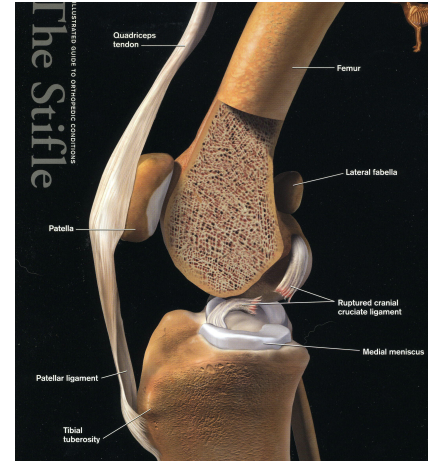
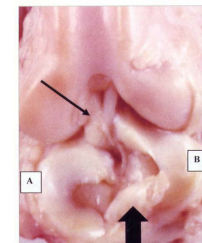
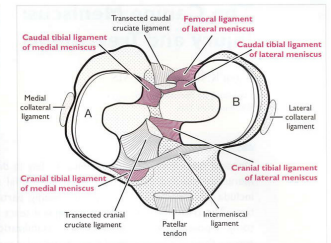


Figure 2 and 3

Figure 1. Menisci and surrounding anatomy.



Dissected stifle held in a cranial drawer position exposing the medial meniscus (A), lateral meniscus (B), transected cranial cruciate ligament (thick arrow), and caudal cruciate ligament (thin arrow).



Tibial plateau and menisci.

Figure 2. Meniscal tears.

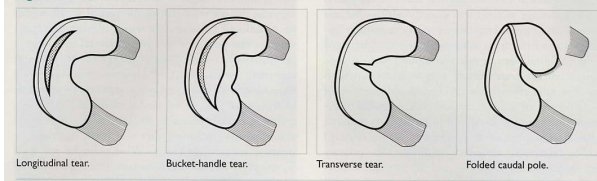
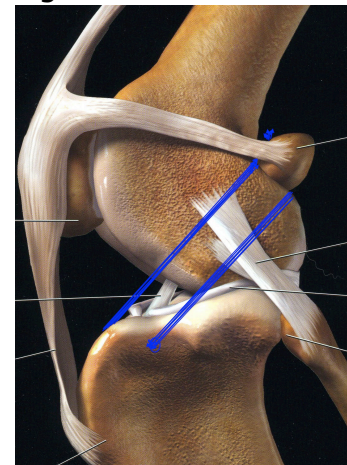


Figure 4



Illustrations are reproduced from the following sources:

Image 1: Novartis Animal Health "An Illustrated Guide to Orthopedic Conditions"

Images 2 & 3: Briggs KK. The Canine Meniscus: Injury and Treatment. Compendium. 2004, pp 687-695.

Image 4: Fossum TW. Small Animal Surgery. 2nd ed. Mosby St Louis, 2002