

EXTRACAPSULAR ACL STABILIZATION:**When to head to the toolbox for this treatment option****Synopsis**

A cranial cruciate deficient stifle will experience laxity on exam (cranial drawer sign) and with weight bearing (cranial tibial thrust). Veterinary professionals diagnose this laxity most routinely with the “cranial drawer sign”; occasionally you can mimic the cranial tibial thrust sign during an exam. An extracapsular stabilization involves implanting a heavy gauge “pseudo-ligament” on the outside of the joint, to approximate the missing ligament function. The suture implant is attached in relatively the same biomechanical locations outside the joint, as the ligament attached inside the joint—the caudal femur (soft tissue attachment) and the cranial tibia (bone tunnel). Patient outcomes postoperatively suggest a reliable return to weight bearing, and high level of function long term for most patients. Extracapsular stabilization is recommended for smaller dogs under 30# and more sedentary dogs.

All dogs with a ruptured cranial cruciate will develop DJD/arthritis in their lifetime. This manifests as stiffness when rising, limping after vigorous activity. The goal of early extracapsular stabilization surgery is to delay and minimize this DJD development.

Complications that may arise with this procedure are:

- Superficial or deep **surgical infection** (rare, requiring long course Abx),
- **Implant infection** (rare and significant, requiring long course Abx and surgical implant removal),
- **Implant breakage** (rare and significant, often requiring additional surgery)
- **Insufficient joint stability** (rare and significant, often requiring additional surgery)

Poor postoperative outcomes may be due to the above complications, and/or:

- **Meniscal injury** subsequent to initial surgery (rare if meniscus removed or released; may require re-operation for explore and removal)
- **Progressive DJD/arthritis** (dependent upon patient lifestyle, joint status at surgery, meniscus status at surgery.)
- **Reduced joint range of motion** due to poor postoperative rehabilitation (dependent upon patient lifestyle, owner attention to rehabilitation).

What a surgeon needs prior to surgery:

- Confirmation of cranial drawer sign on exam (or a heads up that cranial drawer is NOT detected.)
- Radiographs to rule-out other injuries or diseases mimicking a ruptured ACL
- Affected leg “marked” by owner for confirmation (wax “costume makeup” works well)

General considerations and complications for all surgery/anesthesia procedures are:

- *Difficult and/or painful anesthetic recovery (variable; may require additional medications or re-hospitalization)*
- *Incisional infections (rare, minor; usually require oral antibiotics)*

- *Incisional dehiscence (rare, minor or major; may require surgical revision)*
- *Adverse anesthetic event (rare, major; may result in serious impairment or death)*

Proper owner expectations are important to a successful experience and patient outcomes. Please discuss this information with your clients while assisting them with decision-making for **cranial cruciate disease**.

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