

## Procedure for Cranial Cruciate Ligament Repair Using Twisted Fascia Lata Graft with ACell Vet<sup>®</sup> Powder

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**Caution: Federal (USA) law restricts this device to sale by or on the order of a physician or properly licensed practitioner. This product is not for human use. These recommendations are designed to serve only as a general guideline. They are not intended to supersede institutional protocols or professional clinical judgment concerning patient care. Always read product IFU before use.**

### DEVICE DESCRIPTION

The ACell Vet Powder is derived from porcine urinary bladder. It is a naturally occurring extracellular matrix that maintains and supports a healing environment for wound management.

### SITE PREPARATION

Surgical preparation of the affected leg is performed in typical fashion.

### PRODUCT PREPARATION

Prepare the suspension for injection with 3.0 ml of sterile saline mixed with 0.1 g of ACell Vet Powder.

### APPLICATION

A fascia lata graft 1.0-1.5 cm in width is harvested from proximal aspect of the femur to its attachment near the proximal tibia. The distal attachment is maintained while the proximal attachment is freed. Once the graft is freed, all fat is then removed from the graft.

A buttress suture of #1 Vicryl is tied around the base of the graft leaving equal amounts of the suture on each side. The graft is then twisted into a solid, cylindrical shape. The #1 Vicryl is then wrapped around the twisted graft in a Chinese finger trap pattern and tied at the proximal end, leaving a suture tail to aid in manipulating the graft later.

Inject the suspension into the graft. Start at the base and work your way proximally until the entire graft has been injected with the ACell Vet Powder suspension. Once the ACell Vet augmented fascia lata graft has been prepared, it can then be tucked into a subcutaneous pocket to be kept moist until implantation.

A lateral arthrotomy is then performed. Luxate the patella medially and inspect the joint. Remove any torn remnants of the cruciate ligament and inspect the medial and lateral menisci. Perform partial meniscectomy if necessary.

The first bone tunnel is made from the medial cranial tibia into the joint at the level of the insertion of the cranial cruciate ligament. A 3mm pilot hole is made using a drill guide to aid in positioning. The hole is then made larger once position is deemed satisfactory. Increase the drill size to 3.9mm and then to 4.7-6.2 mm, depending on the diameter of the graft. A second hole of 4.7-6.2mm is then drilled medial to lateral across the tibial crest so that the graft can go from a lateral to medial position.

The graft is passed from the lateral aspect of femur to a medial position passing the graft through the tunnel in the tibial crest. The graft is then pulled into the joint using a large needle to loop the suture on the end of graft. The graft is then pulled through the joint in an over the top position, using a cruciate hook positioned just lateral to the caudal cruciate ligament and inserting it laterally until it comes out just proximal to the lateral fabella.

While holding tension on the graft, with the leg in extension, the graft is fixed to the lateral femoral condyle using mattress sutures of # 1 Vicryl or bone staples. The excess graft is trimmed and the joint is checked for anatomical position and lack of drawer motion. A single lateral retinacular suture of #5 fiberwire is preplaced through the fascia lata graft and joint capsule while the joint is still open.

The joint is closed with 0 Vicryl. The preplaced retinacular suture is then passed thru the tibial crest tunnel. The suture is tied so that it does not prevent stress on the graft but does protect the knee from over extension and excess stress on the graft if the dog should become too active.

### **FOLLOW-UP CARE**

Post-operatively the leg is placed in a Robert Jones bandage for 72 hours. After 72 hours, remove the bandage and start massage of the quadriceps and biceps femoral muscle groups along with hot compresses. Begin passive range of motion exercises at 1 week post-op.

Leash walks of 1 block length are started 1 week after surgery. The lengths of the walks are gradually increased. Most patients are walking one mile - one to two times per day by one month post-op. If available, underwater treadmill therapy may start at 4 weeks post-op.

Analgesics are administered 2 times per day for 2-3 weeks, and then reduced to 1 time per day as required. Glucosamine and omega 3 fatty acid supplements are administered for the life of the patient.