

**Surgery performed:** Lateral Imbrication Technique for Cranial Cruciate Ligament Tear (Small Dog)

**Prognosis:** Your dog has a good chance to make a full recovery.

**Convalescent period:** Weight bearing is typically seen within the first week after surgery. By two weeks after surgery most dogs bear a moderate amount of weight on the operated limb. By four months after the surgery the lameness should resolve. Please give us a call if your companion is not convalescing well on the operated limb.

**Diet:** If your companion will not eat the regular diet, a home-made bland diet (50:50 mix of lean hamburger, chicken breast, lean turkey meat and a carbohydrate source such as rice, potato, or pasta) or Gerber baby food (strained chicken or beef) should be offered for 3 days and then wean back onto the regular diet over the next three days.

**Bowel movements:** Your companion may not have a bowel movement for the next 4 days after surgery. If your companion does not have a bowel movement after 4 days or is straining to defecate, constipation may be present. Unflavored Metamucil or Miralax at a dose of 1 teaspoon per 50 pounds body weight can be mixed in canned food (in each meal) as a laxative. If this treatment is not effective after 2 days, please contact ASCM or your primary care veterinarian.

**Exercise:**

1. If you have stairs/steps exiting your home, please pick your pet up when going outdoors so that he/she does not need to navigate these for the first 2 months after surgery.
2. Cover all slippery floors with throw rugs or indoor/outdoor turf carpet for the first 8 weeks after surgery.
3. Do not leave &&PTNAME off the leash for 3 months. No jumping, climbing stairs or rough-housing with other pets or people. Strenuous activity may prevent a full recovery. If your pet is very active within the home, crate/cage confinement will be necessary to prevent damage to the surgical repair. During the third month, exercise can be gradually increased (on a leash).

**Rehabilitation therapy**

1. First 3 days after surgery: Apply a cold compress (frozen peas, frozen corn or a cold gel pack) to the operated knee three times daily, twenty minutes each time for the next three days. Place a thin towel between the cold compress and the knee for patient comfort. The cold compress will reduce swelling, bruising and pain.
2. Day 4 to day 14: Three steps are taken during each rehabilitation therapy session: warm compressing, passive range of motion exercises followed by cold compress.
  - a. Apply a warm compress (warm water bottle or microwaved raw rice in a cloth bag) to the knee three times daily, ten minutes each time. Monitor the temperature of the compress so that it does not burn the skin. Place a thin towel between the warm compress and the knee for patient comfort. This step helps to loosen connective tissue in preparation for passive range of motion exercises.
  - b. Passive range of motion exercises should be started on the 4th day after surgery and should be done after application of the warm compress. Passive range of motion exercises are done by flexing and extending the knee joint three sessions daily for five minutes. The goal is to flex the knee so that the tip of the hock

(heel) will touch the rump and then straighten the knee out completely. This step helps to break down adhesions and scar tissue so that your pet will attain normal or near normal range of motion. Also, flex and extend the hip and the ankle joints. Massage the muscles of the thigh and especially work on the muscles on the front of the thigh, because these may develop cramps (trigger points). This can be done after the passive range of motion session.

- c. After the range of motion exercises, apply a cold compress to the knee for five minutes. This step reduces inflammation.
3. Day 14 to the 8th week postop: As long as &&PTNAME is bearing a moderate amount of weight on the limb, leash walks are permitted. Ten-minute walks three times daily are permitted in your yard. Explosive activity such as running, sprinting, jumping, twisting/turning are not permitted as tearing of the soft tissue or imbrication sutures may occur. Continue range of motion exercises, as described above 5 minutes (or about 20 repetitions) for 6 weeks; during this time, the warm and cold compress therapy is not needed.  
NOTE: If possible, we also recommend rehabilitation therapy at by a professional rehabilitation therapist of your choice, which can start in 2 weeks after surgery.
  4. Week 9 to 12 postop: Range of motion exercises can be discontinued. Leash walks should be gradually increased to a normal duration (start with 15 minutes three times daily and gradually work up from there). Climbing stairs and jumping on elevated surfaces (2 feet or less) is permitted.

Incision: If present, a dressing covering the incision should be removed one day after surgery (pull the dressing from top to bottom); you may use coconut oil to help soften the adhesive during removal. If this bandage is left on too long, it will be much more difficult to remove. Daily, check the incision for signs of infection which includes redness, swelling, pain or discharge. Swelling of the lower part of the limb (hock) is common and will resolve within 7 to 10 days. Bruising may be mild or quite extensive and usually resolves without any specific treatment within about 7 to 10 days. Do not allow licking of the incision, as this could cause an infection or open the incision. An Elizabethan collar should be kept on your companion for 2 weeks to prevent licking of the incision.

**Follow-up examinations:**

1. Please send your surgeon a photo of the incision to ensure that healing is taking place and send us a video of your dog walking on a leash in 2 weeks after surgery.
2. An in hospital evaluation of the operated limb should be made in 8 weeks to check the healing process. This should be done at our hospital (no additional fees for this examination and radiography if done by us).

IV catheter bandage: Your dog had an intravenous catheter for the administration of IV fluids during anesthesia. The catheter has been removed and a small bandage has been placed over the site (typically on the lower part of a forelimb) to prevent bleeding. Please remove this bandage when you arrive home.

Long-term management of osteoarthritis: All dogs that have had a cruciate ligament rupture and surgery will develop some degree of osteoarthritis of the operated knee.

Recommendations to control signs of osteoarthritis include:

1. Weight management: Your companion should have a trim body condition (light coat of flesh over the ribs and trim waist). Overweight dogs will have increased signs of

- arthritis. If needed, please consult your dog's veterinarian for a weight management program.
2. Please do not change your dog's diet unless instructed by us your your primary care veterinarian. If your pet is showing signs of arthritis (stiffness on the operated limb) after 3 months, a diet with high levels of omega fatty acids can be prescribed. Hill's Mobility or Metabolic diet or other similar prescription diet will be recommended. It is important to wean your pet onto this diet over a period of 2 weeks to prevent excess flatulence and/or diarrhea. Keep the food in a sealed bag and at cool temperatures to prevent it from becoming rancid (since it is fish based). Note: if your companion has food allergies do not change the diet.
  3. Nutraceuticals: Dasuquin is a high quality, very pure form of chondroitin sulfate and glucosamine that is readily absorbed by the intestines in dogs. In addition, it contains avocado/soybean unsaponifiables (ASU), which are natural anti-oxidants that help alleviate signs of arthritis. Please obtain this or a similar supplement from your primary care veterinarian.
  4. Pain management: Intermittent use of a non-steroidal anti-inflammatory may be needed during periods of soreness due to changes in the weather or high activity. If needed, please obtain this medication from your primary care veterinarian.
  5. Exercise: Maintaining good muscle mass and range of motion of the operated knee is important for improved long-term function. Daily walks, swimming, incline walking and regular activity are recommended after all exercise restrictions have been lifted.

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**Medications:** A pain management protocol has been prescribed which should be very effective. If your pet seems to be uncomfortable (whining, restless), the most common cause for this is that your pet may be delirious from the narcotics or may need to urinate. Take your pet outdoors to eliminate (make sure that the sling is removed once upon arriving to the area for elimination). If your pet still seems to exhibit signs of pain, please give us a call.

Typical postop medication protocol prescribed at ASCM includes:

1. Nocita is a local anesthetic that is injected into the operated tissues at the time of surgery and provides pain relief for about 72 hours.
2. NSAID for 10 days. The duration of this prescription may be increased beyond this time, If needed for patient comfort. Examples of NSAID includes carprofen, meloxicam, deracoxib, and others
3. Antibiotic for 5 days. We commonly prescribe cephalexin.
4. Tramadol to control pain – it is not a very strong pain killer in dogs, but does seem to some effect.
5. Sedatives to help control your pet's activity in the postop period. Trazodone is a mild sedative. Acepromazine is a stronger sedative.