



Cassidy Barnert BSc (kin), EST
403-471-2702
www.evolutiontherapy.ca

Post Session Notes for CCL Tears in Dogs

- **General:** Provide ample access to water and some controlled movement post session.

- **Info:** The cranial cruciate ligament (known as the anterior cruciate ligament, or ACL, in humans) is one of several ligaments in the stifle (knee) that connect the femur (thigh bone) to the tibia (shin bone). The CCL has 3 main functions: (1) prevent cranial displacement of the tibia in relation to the femur (cranial drawer sign) (2) prevent hyperextension of the knee, and (3) prevent internal rotation of the tibia. Cranial cruciate ligament (CCL) rupture is one of the most common orthopaedic conditions in dogs.

- **Goals:**
 - Control pain (Work with veterinarian for NSAIDS)
 - Control Inflammation
 - Maintain range of motion (ROM) and joint health
 - Strengthen muscle
 - Ensure correct movement patterning
 - Return to previous exercise level

Day 1- 14

Stringent activity restriction- elimination of running, jumping (even onto/off of furniture), rough play, and stairs. It is equally important that the pet be allowed outside only for bathroom breaks and be kept on a leash. Indoors, confinement to a small space is imperative. This could be a crate or small room where there is no risk of running or jumping. Similarly, nonslip surfaces are critical to avoid slips or falls.

Passive Range of Motion (PROM): Stimulates blood flow, speeds healing, and prevents muscle atrophy. Move the entire leg through the motion of pedaling a bike with one hand just above foot and the other hand above the incision. Repeat 15-20 times 2-3 times daily. Do not force beyond comfort level. If you get kicking or pulling you've gone too far.

Massage: Stimulates blood flow and prevents scar tissue within muscles. Apply pressure to the quadriceps and hamstring muscles (large muscle groups at the front and rear of the thigh). Start at the knee and move up toward the hip. Massage for 2-3 minutes before and after PROM.

Cold Therapy: Helps soothe pain and decrease inflammation Use crushed ice or frozen peas or corn and apply in a pillow case, or with a thin towel. Make sure to cool all areas of the knee – the outside where the incision is, the front, and the inside. Ice for 15 minutes at least 3-4 times a day and after PROM.

Walking: Helps maintain strength. SLOW and CONTROLLED walking (not trotting) on a leash 5-10 minutes twice a day. Walk on level surfaces, avoiding hills and steps at first.

Modalities – Laser, PEMF may be beneficial to decrease inflammation and speed healing

Weeks 2-4

- a. Continue PROM and massage, added modalities
- b. If swelling persists, continue with ice therapy. If no swelling is present, switch to heat application.
- c. Increase length of walks gradually to 15-20 minutes twice daily by week 4. Stay slow and controlled!

Weeks 5-8

- a. Continue slow, controlled leash walks. Gradually increase to 20-30 minutes per walk.

Add the following while walking to build strength

- b. Can consider hydrotherapy/ underwater treadmill
- c. Walk your dog in a figure 8 pattern to the left and right. Start with a large figure 8 and walk the pattern 5 times in one direction before changing to the other direction. Over 3-4 weeks gradually tighten the figure 8 and switch directions more frequently.
- d. Do sit-to-stand exercises. Stand your dog alongside a wall with the operated leg against the wall and ask him to sit and then to stand several seconds later. The keys to this exercise are a.) ensuring the dog sits with both hind limbs squarely under his or her body, and b.) trying to achieve standing without pulling from the front limbs or walking forward. Start with 3-4 repetitions 2-3 times a day and build to 10 reps.
- e. Continue PROM, massage, added modalities

Weeks 9+

- a. Continue all above exercises for strength and range of motion.
- b. Add uphill, snow or grass to walks.
- c. Slowly go up and down stairs
- d. Set up a line of cones or obstacles and zig-zag through them.
- e. Incorporate balance exercises by having your dog walk over couch cushions on the floor.
- f. Use leg weights wrapped around both ankles (even if only one leg had surgery) and have your dog walk around for 2-3 minutes at a time.
- G. low-level cavaletti pole walking helps with active range of motion, weight bearing, and limb placement. Typically we perform this exercise by placing a bar between two pylons. Alternatives to the pylons would be using a ladder, placing a broom handle on or through laundry baskets, or placing a broom handle on or under similarly sized books. The bars or obstacles should start low to the ground, near the level of the tarsus, and gradually get higher as limb comfort and strength improve.
- g. After 2 months, you may allow short periods of off-leash activity while supervised.

The above exercises should become a part of your dog's normal routine forever to help keep strong and flexible, and maintain comfortable mobility!

- **Recovery from injury:**

- **Return to Activity:** Increase intensity OR duration by no more than 10% every 2 weeks. Don't adjust both at the same time.

- **Heat vs Ice:**

- **Cold** treatment reduces inflammation by decreasing blood flow. Apply within 48-72 hours after an injury.
- **Heat** treatment promotes blood flow and helps muscles relax. Use for chronic aches and pain. Don't force on dog and check temperature of the source regularly.



- **Contraindications:** all of my care is complementary. The only contraindications would be pacemakers, and implanted electrical devices. You can use heat, laser, back on track products etc in combination with the sessions. Just assess dog regularly for comfort level.

- **Things to notice:**

- change in energy, ROM, sleeping more/less, stretching, change in performance, are they licking their joints, does she lie down on one side more than the other, does the tissue feel cold or hot, does the tissue feel yielding or sticky, swollen or stiff, any limping etc.

- Call me at 403-471-2702 if you have any questions or concerns or notice any changes.

***My services are not intended to be a replacement or substitute for veterinarian care and are highly complementary in nature. If required, I am able to work closely with your vet and advise him/her on my findings**