

## Post-Surgical Tibial Plateau Leveling Home Care Guidelines

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**Summary:** A tibial plateau leveling osteotomy surgery was performed to treat a ruptured cranial cruciate ligament. Satisfactory recovery from surgery and return to function depends largely on the quality of home care. These instructions are guidelines required to achieve a successful recovery and to minimize complications.

**Activity:** Animals frequently feel better long before they are healed. Your dog does not understand the nature of their surgery, and will want to become very active shortly after the procedure is performed. **Restriction of activity is extremely important.**

This generally means confinement to a crate/cage/small room, no jumping, no running, no stairs, no “rough housing” and no playing with other dogs until recovery is well advanced. When taken outdoors to urinate or defecate, your dog **MUST** be on a short (<6 feet) leash. This degree of confinement must be continued **for the entire recovery period** (minimum of 8 weeks) except when performing the activities described for rehabilitation.

- Your dog can be inside, on carpeted surfaces, under your direct supervision. Running, jumping, bounding and playing are not allowed (if there are other dogs in the household, you will need to keep them separated).
- Your dog must be on a leash at all times when outside. Your dog should go for short walks on leash to their comfort level. Please see rehabilitation guidelines below.
- When not under direct supervision, your dog is to be confined.
- If at any time during recovery and healing a set-back or decrease in function is noted, contact your veterinarian.

Excessive activity may result in re-injury and/or complications that jeopardize a successful outcome and could result in additional surgery that will lead to additional discomfort for your dog and additional cost to you.

Weight Management is important during the recovery period as your dog may be getting less exercise. Please decrease your dog’s caloric intake accordingly. If your dog is overweight or obese a successful weight management plan will be critically necessary for the long term

success of the surgery and recovery. Please discuss feeding strategies and/or prescription weight management diets with your veterinarian.

**Incision:** Please evaluate the incision twice daily for signs of infection including progressive redness, swelling, oozing, heat, pain and/or separation of the skin edges. Early detection and treatment of infection can markedly improve outcome if complications develop. If you have any concerns or note any signs of possible infection, please contact your veterinarian. **Your pet may be sent home with a small protective covering that may be removed after 24 hours unless it falls off before then. The purpose of this is to cover the wound until the body has had a chance to form its own seal.**

**E-Collar/Lick Sleeve:** Your dog will be provided with an E-Collar (“head cone”) or protective leg sleeve which should be worn whenever your dog is not directly supervised until the 2 week re-check/suture removal appointment. **It is critical that your dog is not able to lick the incision.**

**Medications:** See medications per your veterinarian.

Please give all medications as directed and do not change dosing amounts or frequency without consulting your veterinarian. Side-effects are most frequently gastrointestinal upset such as vomiting, diarrhea and decreased appetite. Please contact your veterinarian with any questions or concerns regarding potential side-effects or medication dosing.

Nocita: A long-lasting analgesic medication, Nocita® (bupivacaine liposome injectable suspension), was infiltrated into the surgical site for post-surgical pain lasting for 72 hours. Local incisional inflammation (redness, swelling, bruising) is rare but potential complication.

**Follow-up appointments:** Additional appointments beyond the 2 and 8 week re-checks may be scheduled by your veterinarian.

1. Please schedule an evaluation in 2 weeks. The goal of this exam is to ensure proper incision healing and/or presence of infection and to remove external skin sutures if present.
2. Radiographic evaluation (x-rays) and progress check; please schedule an appointment at 8 weeks post-operative to ensure that functional recovery and bone healing are progressing as expected. These appointments will likely require sedation to obtain high quality radiographs (x-rays). Most patients have adequate bone healing by 8 weeks following surgery however a small percentage of dogs will require additional healing time and repeat radiographs at 10-12 weeks following surgery.

**Prognosis:** Prognosis depends on severity of injury, concurrent arthritis, meniscal injury, and/or disease in other joints. In general, the prognosis for return to function is considered good to excellent. Return to peak function is gradual and expected 4-6 months following surgery.

Rehabilitation will greatly increase the rate and quality of recovery. Potential complications associated with TPLO surgery include but are not limited to infection (including antibiotic resistant infection), swelling and bruising, delayed healing, implant failure, post-liminal meniscal disease, osteoarthritis, patellar tendonitis, and continued lameness. Complications may require additional testing and medication and in rare cases ,additional surgery to correct and may be associated with additional costs.

**What to expect going home:** After surgery dogs are typically non-weight bearing to toe-touching lame for the first few days. Shortly thereafter dogs will begin to bear weight with an obvious lameness. When walking they will use the limb but they will often hold the leg up when standing. Swelling and bruising in the surgical leg is common but should remain mild and resolve within 7 days. Within two to three weeks they are using the leg consistently. By the eight week recheck and radiographs most dogs are healed and may begin a gradual return to normal activity. Rehabilitation begins soon after your dog/s surgery. Over the course of months your dog's activity will be allowed to gradually increase to build muscle mass, improve flexibility and enhance bone healing while minimizing complications. The degree of activity should progress with your pet remaining comfortable. The primary goal is increasing duration and minimizing Intensity so **REMEMBER** explosive activities such as running, jumping or playing with other dogs are not allowed during the critical first 8-12 weeks recovery following surgery.

### **Rehabilitation at Home:**

- Completing as many as possible of the at home steps recommended is best for promoting recovery. Do the best you can but don't worry if you can't accomplish all repetitions suggested on every day.
- Not every dog will be able to follow all of the outlined therapy plans depending on their body condition, fitness level, degree of damage in the affected joint, disuse atrophy from chronic cruciate disease, and disease in other joints. Some dogs progress rapidly while others are slower to recover. Take your time and do not rush the healing process.
- Rehabilitation is a vitally important part of maximizing recovery after surgery. Please consult with a certified rehabilitation therapist if available in your area to develop a comprehensive treatment plan specific to your dog.
- Please contact your veterinarian if you have any questions or concerns.
- If you notice any sign of lameness or discomfort after increasing any exercises, revert to the previous week's level of activity.

### **Weeks One and Two**

1. Short and Controlled Leash Walks: Perform for 5-10 minutes, 3-4 times/day on a flat surface.

At first, these walks should be for elimination purposes only. The slower your dog walks, the more likely they will use the repaired limb while walking. If needed, use a support harness or towel under the belly to support your pet's hind end, especially on slippery surfaces.

2. Massage: Perform for 5-10 minutes, twice a day

Massage is best done with your pet lying on their side. Start by making your pet comfortable and pet them from their head to their tail, and then gently rub the thigh and hip of the affected limb. If your pet resists or seems uncomfortable, try using less pressure or try again when he is calmer. Do not force this or any other therapy. Begin at the toes and work up the limb.

3. Passive Range of Motion (PROM): Perform 10 repetitions, 3-4 times/day

The goal of PROM is to manually simulate normal motions of the joint to maintain muscle and joint function. This is best done following massage and with your pet laying on their side. Starting with the ankle, then knee, then hip, gently extend and flex the joints. Be sure to support the leg carefully with your other hand while performing these movements keeping the leg level with the body. Do not force PROM. If your pet seems uncomfortable, stop and try again at another time

4. Cold Therapy: Perform for 15-20 minutes after exercise

Following PROM and short leash walks, it is important to apply cold therapy to the affected knee and over the incision. Commercial gel ice packs may be used or bags of frozen vegetables. Wrap ice packs in a light towel or pillowcase before applying to avoid excessive cold on your pet's sensitive skin.

### **Weeks Three and Four**

1. Short and Controlled Leash Walks: Perform for **10-15 minutes**, 3-4 times/day on a flat surface
2. Massage: Perform for 5-10 minutes, twice a day
3. Passive Range of Motion (PROM): Perform 10 repetitions, 3-4 times/day
4. Cold Therapy: **Discontinue**

### **Weeks Five and Six**

1. Short and Controlled Leash Walks: Perform for **15-20 minutes**, 3-4 times/day **introduce**

**gentle incline/decline surfaces** for 5-10 minutes 1-2 times/day

2. Massage: **Discontinue**
3. Passive Range of Motion (PROM): **Discontinue**
4. Stretching - **New**: 5-10 minutes, 1-2 times/day

As in PROM exercises, it is best to perform stretching while your dog is lying relaxed on its side. Make sure to support the leg above and below the knee. Gently manipulate the knee to the COMFORTABLE end of its normal flexed range. At the end of this range, apply just A TOUCH more pressure and HOLD this position for 6-10 seconds. Allow the limb to return to its neutral position for 15 seconds. Repeat for a total of 10 times for both flexed (bent) and extended (straightened) knee position.

5. Figure Eights Exercises – **NEW**: Perform for 5 minutes, once time/day

Place 3-6 small obstacles in a row (i.e. chairs, pillows, etc.), approximately 3 feet apart. Walk your dog SLOWLY through the obstacles 4 times, making a figure eight pattern with WIDE TURNS. Rest between repetitions. As with the ground pole exercises, this movement will help with restoration of your dog's balance and coordination.

6. Curb Work – **NEW**: Stepping on and off a curb increases muscle strength, helps to improve balance, and benefits flexion and extension in the limb that underwent surgery. Have your dog step on and off a low curb as you walk alongside it for a length of 10-20 feet, 3-4 times/day.

7. Sit-To-Stand Exercises – **NEW**: Perform 5-7 repetitions, 2 times/day

This exercise encourages extension/ flexion in rear leg joints and works the muscles. The object is to help your dog to sit down with good sitting posture and stand back up. Doing this exercise at feeding time or using a small treat to encourage may help.

### **Weeks Seven and Eight**

NOTE: After week six, your dog may be off leash in the house; but continue to prevent free access to stairs.

1. Controlled Leash Walks with Incline Work and Intermittent Trotting: Perform for **20-30 minutes total**, with intermittent intervals of controlled jogging for 20 feet.
2. Figure Eights Exercises: Perform for 5 minutes, 1-2 times/day

3. Curb Work: Go 20 feet, 3-4 times/day.
4. Elevated Hip Sways – **NEW**: Perform for 5 minutes once a day for muscle building

With your pet standing on a stable surface facing away from you, place one hand on each hip and gently rock the hips back and forth. Place one hand on each hip and gently rock back and forth.

5. Stair Work - New: 5-7 steps in a row, 1-3 times/day

With your dog on a leash, slowly go up and down 5-7 stairs 1-2 times/day. Increase the number of stairs/ frequency each week. **DO NOT GIVE YOUR DOG FREE ACCESS TO STAIRS YET**

### **Weeks Eight to Sixteen**

- After bone healing is confirmed (usually at the 8 week recheck but sometimes 10-12 weeks), you may slowly increase activity including some controlled off-leash activity, running and jumping over the next two months.
- You may also increase the amount of physical therapy exercises, including sit and stand exercises, walking up and down hills, etc. If you notice that your dog is more lame or painful, rest for a few days and return to the previous level of rehabilitation.
- It is important to do this slowly. Ideally, you start out with longer lead walks, then start some off-leash activity after a longer walk (to exhaust your dog prior to the off-leash activity). The first off-leash period should be as little as 1 minute! Baby-steps are best to avoid complications. Your dog can be back to completely normal activity at 14-18 weeks after surgery. Again, this part of the recovery should not be rushed since the soft tissues (especially the patellar tendon) have to get used to their changed-function slowly. There are no strict numbers on how much activity is adequate for your dog, the most important part is to avoid multiple set-backs (increased limping).

Please do not hesitate to call with any additional questions or concerns.  
Thank you for allowing us to care for your dog.

