

Midvalley Animal Clinic

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Cranial Cruciate post-operative information, care and rehabilitation

Alertness

- Your pet has been given an anesthetic today and will be drowsy and uncoordinated for up to 24 hours. For this reason, it is important to keep him/her away from stairs and decks and to keep him/her indoors in a quiet room the 1st night.

Food and Water

- It is all right to make food and water available to your pet once he/she has his/her coordination back. Some pets eat the 1st night but, others may not eat for a day or two. Many pets are nauseous for 24 hours after their surgery.

Bandage Care

- The goal of the bandage is to provide pressure to the surgical site to reduce swelling and improve patient comfort for the first few days. Place a plastic baggy over the foot whenever you take your pet outside to prevent soiling of the bandage; immediately remove when indoors. If the bandage slips below the incision or becomes soiled or wet before this time, please remove by simply cutting away a layer at a time (use caution/avoid skin; or return to Midvalley Animal Clinic).
- Bring your pet in for bandage removal in **3 days**. We will check the incision at this time. The bandage does not need to be replaced.

~Bandage removal will be done at no additional cost.~

Incision

- The incision should be checked daily for redness, swelling, discharge, and pain. The incision should be dry, slightly red along the margins, and slightly swollen/thick on the edges. Call our office if you are concerned about the incision for any reason including: a) Gapping-the edges should be exactly touching; b) Discharge-other than light crusting; c) Swelling-other than slightly raised skin near the edges. Some bruising is normal and should resolve in 5-7 days.
- Sutures/staples need to be removed **14 days** after the surgery.
- **Do not allow your pet to lick or chew the incision. Please use an e-collar if you leave your pet unattended. No bathing until the sutures/staples are removed.**

~Suture/staple removal will be done at no additional cost.~

Surgical findings

1. Left /right cranial cruciate ligament had a partial/ complete tear.
The ligament was fully / partially debrided.
2. Caudal horn of the meniscus was / was not damaged.
A partial meniscectomy was / was not performed.
3. Arthritis none / mild / moderate / severe

Emergency Services: Emergency services are available after hours at The Pet E.R.: 6360 Highland Drive (801) 278-0505. The client is responsible for all fees charged by the emergency clinic.

Medications

- Your pet has been sent home with three types of medications. Antibiotics, NSAID pain medication, and a narcotic like drug. Your pet was given an injectable form of these medications with the surgery. If your pet is not nauseous you can give the Tramadol the night of the surgery. All medications should be started the morning following the procedure. All medications can be given at the same time. Please follow the directions on the label. **Give only as directed by our veterinarian.**

1. Carprofen _____ mg _____ tabs _____ times daily (every _____ hours)
2. Tramadol _____ 50mg _____ tab(s) _____ times daily (every _____ hours)
3. _____ mg _____ times daily (every _____ hours)

Activity restriction x 8 weeks

- Please keep your pet in a comfortable, safe, indoor location with no stairs for the first 2 weeks following the procedure. You can make a temporary ramp with a sheet of plywood for large dogs. Your pet may be groggy for the next few days. He / she may whine or appear more anxious than usual; this may indicate pain / discomfort or side effects of the medications. Please call Midvalley Animal Clinic for assistance with any medication adjustments or return for an examination and pain medications as needed.
- Confine to one level/section of the house on carpeted floors. Limited, supervised access to stairs is recommended for weeks 2-8 following the procedure. Use baby gates to prevent free access. Use a belly band / sling for safety when walking across slick floors, going up/down stairs and during all physical therapy activities to prevent falling. (Continue use until pet is steady on operated leg).
- Please always use a short leash (4-6 ft) leash when taking your pet outside to urinate/ defecate during this restricted period. Confine your pet to a small area/room/crate when unattended. Please do not allow your pet to run or jump during this restriction period.
- Your pet should start touching his/her toe down within the first 2 weeks. Thereafter, leg use should steadily improve. If you notice a sudden deterioration or he/she stops using the leg at anytime after surgery, please call Midvalley Animal Clinic for advice. An exam and x-rays may be needed to determine if an infection or implant failure has occurred.
- Your pet will feel like using the leg normally before the bone is well healed. Continue the restriction during this difficult time when he/she is feeling "too" well. Failure to do so can result in serious healing problems and/or implant failure.

Progress exams

- Please make an appointment to see your veterinarian 14 days following surgery for a progress exam. Knee function will be assessed at this time, skin sutures will be removed, and questions regarding physical therapy can be addressed.
- If your pet had a TPLO please make an appointment to see your veterinarian 8 weeks following surgery for progress x-rays. Your pet may need additional x-rays 12 weeks after surgery.
- Complications with this procedure are rare, but possible. We recommend scheduling a recheck with your veterinarian for a re-evaluation if post surgical progress is slow or problems arise at any point in the rehabilitation period. An examination and/or x-rays may be required to fully assess your pet's surgical site.

****Please note these follow up services (exam, x-rays, additional medications, bandages etc) are not included in your pet's original surgery fee and will result in additional charges****

~Bandage removal and suture removal will be done at no charge.~

Physical therapy regimen

Our lives are often very busy, so if you must err, err on the "do less" side of these instructions

Week 1:

- **Range of motion (ROM) exercise** - Have your pet lie on his/her good side. Grip the front of the thigh with one hand and hold the foot with the other. Slowly push the foot up into flexion of the knee then slowly pull the foot and push the thigh down and back into extension of the knee. Concentrate on the extension movement. Repeat this motion slowly and smoothly 10 times once daily. Flex and extend only to your pet's comfortable limit. Do not go to the point of creating pain or resentment. Following ROM, apply ice packs (wrapped in a thin cloth) to incision area. Baggies of frozen peas work well for this, or make an ice pack by freezing 2 parts isopropyl alcohol to one part water in a ziplock bag.
- **Massage** - Do your best to calm your pet and get them used to rubbing motions of your hand. Start running your hand from the toes of the affected limb and up the leg using less pressure and building up one day at a time until you are able to apply moderate pressure. At this early phase in the rehab period, do not force any therapy if you notice that your dog is still uncomfortable in any way. Massage is done for 10 -15 min, 3-4 times a day.
- **Walking** - Lay out a path that will allow you and your pet to turn corners and walk around objects on one level of the house with non-slip flooring or in your yard. Place your pet on a short leash. Walk slow enough so that your pet has to put each foot down and does not hop. If her/she is barely putting foot down, stop every few steps and ask your pet to back up a few steps. Walk your path for 5 minutes twice daily; add 5 minutes each week until your pet is walking at a normal pace at least 20 minutes twice daily and using the operated limb every step. Use small treats to encourage participation. Avoid walking locations they will result in uncontrolled activities, such as , meeting other dogs.

Week 2

- **Moist heat application**- Ten minutes prior to performing the exercise, apply a commercial moist heat product. Although you can use heating bottles or heating pads, moist heat has been shown to more efficiently penetrate the affected tissue better than dry heat. If you can't easily find one, you can improvise by wetting a washcloth with warm water. Be careful though that the heat you are applying is just right to the touch and will not cause burns.
- **Expanded ROM exercise** - Have your pet lie on his/her good side. Apply a warm compress to knee for 5 minutes. Grip the front of the thigh with one hand and hold the foot with the other. Slowly push the foot up into flexion of all joints; hold for 5 seconds. Slowly pull the foot and push the thigh down and back into extension of all joints; hold for 5 seconds. Repeat this motion 10 times twice daily for 4 weeks. Again, do not go to the point of creating pain or resentment. Follow each session with 5-10 minutes of ice packs. (See week 1)
- **Massage** - 10-15 minutes, 3-4 times daily (see week 1)

Week 3

- **Moist heat** - As needed; when you notice that your dog is using his leg consistently when walking, moist heat can be discontinued.
- **ROM** - As needed; when you notice that your dog is using his leg consistently when walking ROM can be discontinued.
- **Sit/ stand exercise** - Have your pet repeatedly sit and stand for 10 repetitions twice daily. Use small treats to encourage participation. Do not push down on his/her rump. To encourage proper knee flexion squarely under his/her body, have your pet sit next to a wall so the knee doesn't swing out to the side. Continue 4 weeks
- **Massage** - As needed
- **Post-therapy icing** - Icing after exercise is never a bad thing

Week 4 - 5

- **Moist heat** - As needed
- **ROM** - As needed
- **Slow, controlled leash walks** - Increase time
- **Sit and stand** - 10 reps, 3 - 4 times daily
- **Figure 8's**- Simply walk your dog through an imaginary "8" on the ground. Start with a bigger 8 to encourage your dog to regain his/her balance and increase muscle strength.
- **Massage** - Your pet may stand or lie down. Perform both superficial skin massage & deeper muscle massage. Skin massage around the knee joint involves using your hand loosely conformed to the surface of the skin; enough pressure is applied to move the skin relative to the underlying tissue. Muscle massage of the thigh and shin involves deeper kneading and pushing of the muscles. Perform massage for 10 - 15 minutes twice daily for 4 weeks.

***** Note: If you notice your dog is limping or is uncomfortable with the increasing number of reps or exercises, you should revert to the previous week's level of activity until you feel that your dog is able to tolerate the increased activity.**

Week 6 -7

- **Activity exercise** - Place your pet on a short leash and have him/her walk at your side. Walk outside on even/solid footing for 20-30 minutes twice daily.
- **Controlled leash walks with hill work** - Let your dog walk slowly up and down an incline. By walking up an incline you are encouraging more weight to be placed on the hind line. Again make sure that this is slow and controlled.
- **Sit stand exercise** - Increase repetitions
- **Figure 8's** - Increase repetitions

**** Confirm appropriate healing with your veterinarian prior to the following increased physical therapy activities. *****

Weeks 8-9

- **Curb work** - This type of exercise is best to increase muscle strength, girth and balance as well as improve flexion and extension of the affected limb. This activity is performed by simply stepping up and off a length of curb while walking with your dog.
- **Jogging exercise** - On a short leash, intermittently jog and walk your dog for 10 minutes twice daily. Continue 4 weeks, gradually increasing time and distance.
- **Stair work** - It is ONLY AT THIS TIME after crucial repair surgery that climbing stairs is allowed. Be sure to provide support to your dog during the first few days by using a belly harness or a towel. Introduce walking up and down slowly starting with 3 stairs and increasing the number of stairs each day depending on the progress of your dog. At this time, it is not advisable to give your dog free access to the stairs. Keep him on a leash at all times and the stairs must be off limits when not doing stair work.
- **Swimming** - Is a wonderful rehabilitation exercise when performed correctly. You may allow controlled swimming after week 6. Controlled swimming requires that your pet not jump or leap into the water; please walk your dog into the water until he/she is deep enough to swim. Throwing balls to fetch often can cause serious problems in the healing phase. Do not over extend your pet; start with short excursions (5 min), increase duration/ frequency gradually.

Week 10

- **Light play exercise** - On a long leash, encourage playing and romping with your dog for 15 minutes twice daily. Use toys for teasing and tugging. Continue 2 weeks.
- **Supervised, off-leash or long leash activity**- Ask your veterinarian if it is alright for your dog to have some off leash time. However this should be done under strict supervision from you. If your dog loves to jump, chase balls, toys, and run with other dogs, your dog's better off on a leash at this time.
- **Controlled leash walks with hill work** - Increase time and repetitions
- **Sit-to-stand exercise** - Increased repetitions
- **Figure 8's** - Increased repetitions
- **Curb work** - Increased repetitions
- **Swimming** - Increased time

LONG TERM LIFESTYLE

- It is very common (30-40% of patients) for both knees to develop this ligament injury. Prevention is difficult; the most effective thing you can do toward prevention is to maintain your pet on the thin side of normal body weight and condition.
- Some patients will damage a cartilage pad in the joint (i.e. Meniscus) even after surgical stabilization; this may require a second surgery in the future.
- The prognosis for a dog treated with a TPLO to correct a ruptured cranial cruciate ligament repair is good to excellent. The majority of dogs return to a normal gait, level of activity and endurance. Following the 12 week recovery period, there are no recommended limitations to their lifestyle.