

TPLO Rehabilitation Guide

Confinement: your dog must stay confined during his/her recovery process. A kennel/crate works best; it should be large enough for your dog to stand up and turn around in. Alternatively, you can confine your dog to a small room such as the kitchen with baby gates or equivalent. If the flooring in the room is tile, laminate, linoleum, etc, we recommend placing yoga mats or area rugs with rubber backing in place to give your dog better traction and footing. Use a “belly band” looped under your dog’s abdomen to give him/her support when walking around. A towel works well. DO NOT allow your dog to jump at all, on furniture, or on you! Playing with other housemates is also not allowed until your veterinarian advises the rehabilitation/healing process is complete. During this confinement period, you will need to reduce your dog’s food intake, as s/he will likely gain weight due to the limited activity.

While your dog is on pain medication, it is recommended that you perform these exercises about half an hour after giving the medication, as your dog will be the most comfortable and calm.

Week 0-2:

As soon as your dog’s bandage is removed, you can begin some gentle exercises.

- 1) *Warm packs:* Before working with the affected limb, you may apply a warm pack to the area to encourage blood flow. Do this ONLY if the leg does not already feel warm and/or look inflamed. You can use commercially available warming bags, and be sure to test the temperature on your own skin before applying. Always put a layer of fabric (such as a towel) between the warming bag and your dog’s leg. This can be done for 5-10 minutes each time.
- 2) *Passive range of motion (PROM) and massage:* Massaging the muscles above and below the knee joint will help to relax the muscles before working them. Use the palm of your hand, and press firmly enough to move the skin over the tissues underneath; it should not be a “petting” motion where your hand moves across the skin. You may perform this massage on all the limbs, as the other 3 will be compensating for the injured leg. You may want to test out your technique on the uninjured legs first. Passive range of motion involves extending and flexing the knee slowly while supporting the leg. Your dog should be laying on his/her side with the affected leg up. Support the leg with one hand to prevent any twisting motion, and use the other to gently bend and straighten the leg. This can be done several times a day for 10-15 minutes. Again, the other 3 limbs can also be exercised in this manner.
- 3) *Slow, controlled leash walks:* The first few days following surgery, your dog should be walking outside only for short bathroom breaks. Your dog must remain on leash at all times. Your dog may not negotiate stairs at this point; if there are 2-3 stairs to get outside, you may support your dog up and down these few stairs using a “belly band” (you can sling a towel underneath his hindquarters to support his hind end). Anything more should not be attempted at this point. By the end of the first week, you may begin

to increase the length of the walk up to 5 minutes. Controlling the speed of the walk is important, as a slower pace encourages your dog to use the affected leg more. The surface your dog walks on is also important; icy, slippery, hilly, or uneven surfaces should be avoided. If your dog tolerates these walks, they can be performed up to 3 times daily.

- 4) *Ice packs*: It is beneficial to apply cold packs to the affected leg after exercising. This will help to decrease any pain and inflammation caused by the exercises. You can use frozen gel packs, bags of frozen peas, or crushed ice. Ice can be applied both to the outside and inside of the leg. Again, keep a layer between the cold pack and your dog's skin. Ice can be kept in place for 10-15 minutes per session.

Weeks 2-8:

- 1) *Leash walks*: Duration of leash walks can be increased to 10 minutes, 3 times daily. The pace should remain slow and controlled, but you may begin to add in little extras such as walking in a figure 8 pattern, on and off curbs, over small obstacles, or through long grass or snow. Your dog may also benefit from wading through shallow water, once his/her sutures have been removed. The resistance of the water helps build strength, and the buoyancy helps reduce the stress on the joints. If your dog is the type of dog who would try to run and play in the water, this exercise is not advisable. Your dog should remain on a short leash at all times.
- 2) PROM can be discontinued at this point, but continue to massage the muscles of the hind legs. Continue applying ice packs after each exercise/walk session to help minimize the inflammation.

Week 8-16:

- 1) Leash walks can be increased to 20 minutes each time, 3 times daily, and can be at a moderate speed. Terrain can be varied to include hills or ramps. Stairs can also be attempted at this point, at a very slow controlled pace, and no more than 5-10 flights twice daily. Figure 8 exercises as above can continue
- 2) *Sit-to-stand exercises*: This helps build strength in the repaired leg. Have your dog sit squarely, and then stand. Often dogs will "cheat", and sit lopsidedly, or use their healthy leg to push up from the sit. To avoid this, have your dog sit next to a wall, with the affected leg against the wall. This can be done for 10 repetitions, 3 times daily.
- 3) *Swimming*: Light swimming can be incorporated into your dog's routine, if desired. It is a good overall workout to keep your dog fit during this time of limited activity.
- 4) *3-legged standing*: This helps your dog increase the weight bearing of the affected leg. Have your dog stand, and gently lift one leg (NOT the surgical leg) at a time. Hold for 5-10 seconds.

Week 16+:

- 1) *Leash walks*: Speed and duration can be increased, based on your dog's tolerance and pain level. If your dog begins to limp or tire, cut short the walk. You can begin to introduce runs into the routine, but short and straight only (no turns!).
- 2) *Sit-to-stand exercises*: You may increase frequency and duration to 20-30 repetitions, 3 times daily.
- 3) *Gradual return to normal function*: If your veterinarian has advised that the healing process is complete, you may begin to introduce normal activity back into your dog's routine. Short bouts of off-leash activity can begin. Keep in mind that it takes more than twice as long to rebuild muscle mass as it does to lose it. Even though your dog's bone has healed, there is still work to be done to build the muscle back up to its original condition. It can take months before this is accomplished. Again, be patient, and don't increase your dog's activity too quickly. More than 50% of dogs who have undergone a cruciate repair will injure the ligament in the other leg. Keeping your dog fit, lean and healthy will help minimize this chance.

Long term recommendations:

There are multiple ways to encourage and maintain healthy joints and overall quality of life

- Maintain a healthy weight - overweight dogs have a shorter lifespan overall, and have a much higher incidence of osteoarthritis. Maintaining a lean, fit body condition is the number one way to increase the lifespan and quality of life of your dog.
- Nutraceuticals for joint health - consult your veterinarian for products available that help keep your dog's joints healthy. Joint supplements, prescription diets, or subcutaneous injections (under the skin) of an osteoarthritic drug are all available; they help to preserve your dog's cartilage and increase joint mobility, lubrication, and shock absorption.