

A resource for families of MedVet Surgery patients



Home Recovery Guide

Use Only **TTA & TPLO**

- Preparing the home for your pet's recovery after surgery
- Rehabilitation and strengthening exercises your family can perform with your pet
- Important milestones and reminders

At Home Care – The First Steps

TTA (Tibial Tuberosity Advancement) and TPLO (Tibial Plateau Leveling Osteotomy) are both procedures performed for the purpose of treating ruptured cranial cruciate ligaments in dogs. Whether your dog has had a TTA or TPLO procedure performed at MedVet, the same steps for home care following the surgery are required to ensure a successful outcome. This care primarily entails management of your dog's activity. Your dog does not understand the nature of his/her surgery, and will by nature want to become very active shortly after the procedure is performed. Resumption of being active may not be best for a smooth recovery.

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 except when performing the activities described in the following pages.

Excessive activity may result in re-injury and/or complications that could result in failure of implants or requirement of re-operation. This will lead to additional discomfort for your dog and additional cost to you.

This booklet has been developed by MedVet to serve as a guide during your pet's crucial post-operative healing period. A week-by-week at home therapy protocol is included. If followed **to the best of your ability**, along with rechecks at scheduled intervals indicated during your pet's discharge, return to comfort and normal activity level is best assured.

IMPORTANT:

Dogs that have had both knees operated on during the same surgery may not be able to follow all of the outlined therapy plans. A consultation with a certified rehabilitation therapist is recommended to develop an individualized plan.

Contents



I	Introduction to Canine Rehabilitation	3
II	Preparing for Your Pet’s Return to Home	4
III	What to Watch For.....	5
IV	The Week-by-Week protocol for TTA & TPLO Patients.....	7
V	Therapy Modalities Recommended by MedVet	25
	Moist Heat.....	26
	Cold Therapy.....	27
	Massage.....	28
	Passive Ranges of Motion (PROM).....	29
	Stretching.....	30
VI	Overview of Exercises.....	31
	Controlled Leash Walks	32
	Hip Sways	33
	Ground Pole Exercises.....	34
	Sit-to-Stand (Squats)	35
	Figure Eight Exercises	36
	Controlled Walks with Incline Work	37
	Curb Work.....	38
	Stairs.....	39
	Assisted Swimming.....	40
VII	Notes and Reminders	41

Introduction to Canine Rehabilitation

Rehabilitation is a vitally important part of maximizing recovery after surgery. As a profession, this field can be traced back nearly a century. Over the years, the profession has evolved into a cornerstone of modern medicine for humans and more recently companion animals alike. The rehabilitation therapists at MedVet have special certification in the field of rehabilitation, allowing them to develop cutting edge therapy plans to help your pet recover after surgery.

MedVet's rehabilitation team plays an important role in our comprehensive treatment of many patients. The Rehabilitation Department and Surgery Department work very closely day in and day out to deliver the best post surgical care and monitoring of your pet.



Preparing for Your Pet's Return to Home



PREPARING THE HOUSE

It is important to have a plan on how and where you are going to restrict or confine your dog during the crucial post-operative period. Quality rest will be as important as having a good therapy plan like the one presented in this booklet. In preparing for your dog's return home after surgery, you may want to consider the following:

- A dog crate or gated area such as kitchen or laundry room
- Safe footing in the area to prevent slipping (carpet, rugs, yoga mats)
- Confinement options while you are spending time with your pet

FAMILY MEMBERS

It will be extremely important to not allow your dog to jump after surgery. Overextension of the stifle (knee) could compromise the repair and slow healing time. Reinforce with all members of the family as well as houseguests that these rules will pertain to the first several weeks of your dog's home recovery.

- **NO JUMPING** on/off bed
- **NO JUMPING** on/off furniture
- **NO JUMPING** up on you

NO STAIRS

Climbing or descending stairs will overstress your dog's leg after surgery and thus will inhibit repair of the joint. In the beginning stages directly after surgery, and until your veterinarian says it's okay, it is critical that you do everything possible to prevent your pet from going up and down stairs.

If you have no way to avoid stairs to get your dog into and out of the house, or your dog is too big to carry, please follow these precautions:

- **Restrict:** Make sure to have a leash attached before opening the door.
- **Support:** Use a towel or a commercially available sling under their belly.
- **Limit:** Block off all stairs that your dog could have access to.

REMEMBER

Wood floors, tile and linoleum can all be very slippery to your recovering pet. Consider putting down some throw rugs with rubber backing or yoga mats to make it easier for your dog to gain sure footing after surgery.

What To Watch For During TTA and TPLO Recovery

NORMAL	ABNORMAL*
Swelling around the incision and in the repaired leg up to 5–7 days after surgery	Swelling beyond 5–7 days after surgery
Bruising around and well below the incision on the leg	Bruising in areas other than the incision site
A small amount of (clear or slightly blood tinged) discharge from the incision site	Large amounts of discharge
Discomfort on the repaired leg around the incision (i.e. delicate to your touch)	Discomfort that is not calmed with ice application and prescribed pain medication
The incision is slightly warm to the touch	Discomfort that causes your pet to cry out or bite
Delayed bowel movement, due to fasting prior to surgery and anesthesia during the procedure	No bowel movements beyond five days after surgery
Toe touching lameness (puts foot down but does not carry full weight comfortably on affected leg)	Non weight-bearing lameness after 5-7 days
Soft swelling around the ankle (hock) area within 7 days of surgery	Persistent swelling more than 10 days after surgery.

* If these signs persist for more than 24 hours, please contact MedVet by phone for directions

If your pet has been given a protective collar to prevent licking the incision, it is important that it be kept on at all times he/she is not under your direct supervision. Your pet should be able to eat, drink and sleep with the collar on. Sutures can be removed by your pet in a matter of seconds, which may result in an infection and additional surgery.

Your pet may be on pain medications (Rimadyl®, Deramaxx®, Tramadol, Previcox®, etc.). These medications should be given as instructed by your MedVet doctor; however, if your pet develops diarrhea, vomiting, loss of appetite, or a dark stool, please discontinue the medication and contact MedVet. If your dog is still in pain or is not using their leg well after their first prescriptions are finished, please contact MedVet about these concerns.



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The Week-by-Week At Home Protocol for TTA and TPLO

The entire TPLO/TTA discharge video you watched at your dog's discharge is available on our website for repeated viewing.



www.medvetforpets.com → Services → Surgery → TTA/TPLO
Discharge Video link

PREPARING YOUR HOME

The following weekly rehabilitation and strengthening protocols have many benefits. Following these guidelines as closely as possible will help:

- Speed the recovery of the limb temporarily weakened by surgery
- Decrease pain and enhance healing of injured tissue
- Prevent further muscle weakening from lack of use
- Restore normal range of motion
- Decrease the possibility of further problems in the affected limb

REMEMBER

During all times outside of therapy, strict confinement is critically important. Any form of excessive activity is prohibited during your pet's critical recovery period.

IMPORTANT

If at any time you feel that your pet is in discomfort, please call MedVet.



Week One



Completing as many as possible of the steps recommended is best for promoting recovery for your dog. Do the best you can; but don't worry if you can't accomplish all repetitions suggested on every day of at home therapy.

1 MOIST HEAT

Wait at least 72 hours after surgery to apply heat. Never apply heat if the surgery area is swollen or abnormally warm to the touch.

Perform for 10 minutes prior to exercise

Refer to page 26 for detailed information on Moist Heat Therapy

NOTE: Heat should be applied to the thigh, hip muscles, as well as the lower leg down to the paw. **Avoid applying moist heat to the area of the incision.**

For moist heat therapy, a commercial moist heat product is advised. DO NOT USE A HEATING PAD. Moist heat has been shown to penetrate tissue better than dry heat. Several types of moist heat are available in most drug stores. An alternate way to provide moist heat is with a hand towel soaked in warm water. The heat should be tolerable when placed on the inside of your forearm for 10 seconds.

2 MASSAGE

Perform for 5-10 minutes, twice a day

Refer to page 28 for detailed information on Massage

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.



3 PASSIVE RANGE OF MOTION (PROM)

Perform 10 repetitions, 3-4 times/day

Refer to page 29 for detailed information on PROM

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. A demonstration of PROM may be found on the MedVet website at:



www.medvetforpets.com → Services → Surgery → Rear Passive Range of Motion video link

4 SHORT AND CONTROLLED LEASH WALKS

Perform for 5-10 minutes, 3-4 times/day

Refer to page 32 for detailed information on Controlled Leash Walks

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.



5 COLD THERAPY

Perform for 15-20 minutes after exercise

Refer to page 27 for detailed information on Cold Therapy



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.

REMEMBER

DO NOT ALLOW YOUR DOG TO RUN, JUMP OR CLIMB STAIRS DURING THIS PERIOD!

MEDVET FOLLOW UP APPOINTMENT REMINDER:

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MEDVET

NOTE: Low-level laser therapy can be incorporated into your pet's rehabilitation plan in order to promote comfort and speed recovery. The laser is a focused beam of light that penetrates deep into the body's tissue

to help increase circulation, decrease inflammation and block pain signals. Laser therapy has a cumulative effect and is done several days a week initially, with the frequency decreased over time.



PLEASE CONTACT THE MEDVET REHABILITATION DEPARTMENT IF YOU ARE EXPERIENCING COMPLICATIONS WITH HOME THERAPIES, OR IF YOU HAVE ANY QUESTIONS

Week Two

Completing as many as possible of the steps recommended is best for promoting recovery for your dog. Do the best you can; but don't worry if you can't accomplish all repetitions suggested on every day of at home therapy.

1 MOIST HEAT

Perform for 10 minutes prior to exercise
Refer to page 26 for detailed information
on Moist Heat Therapy

2 MASSAGE

Perform for 5-10 minutes, 3-4 times/day
Refer to page 28 for detailed information
on Massage

3 PASSIVE RANGE OF MOTION (PROM)

Perform 10 repetitions, 3-4 times/day
Refer to page 29 for detailed information
on PROM

4 SHORT AND CONTROLLED LEASH WALKS

Perform for **10-20 minutes**, 3-4 times/day
Refer to page 32 for detailed information
on Controlled Leash Walks



5 HIP SWAYS – NEW

Perform for 5 minutes, 2 times/day
Refer to page 33 for detailed information
on Hip Sways

With your pet standing on a stable surface facing away from you, place one hand on each hip and gently rock their hips back and forth. If your pet resists weight shifting on the affected leg, put your hand on the lower part of that leg to hold it in place while shifting weight to that side. For larger dogs, the sling or rolled towel may be used under the belly to gently sway the hind end left to right.



6 COLD THERAPY

Perform for 10-15 minutes after exercise

Refer to page 27 for detailed information on Cold Therapy

SUTURE REMOVAL AND REHABILITATION ASSESSMENT APPOINTMENT REMINDER:

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Note: At this point, you can schedule your rehabilitation therapy assessment. An individualized home therapy plan will be developed for your pet by our rehabilitation therapist. The underwater treadmill is designed to provide low impact exercise incorporating heat therapy for muscle

tension and water resistance to help build muscle. MedVet recommends 8 therapy sessions (twice a week for four weeks) to work on regaining muscle mass, decreasing muscle tension and increase joint range of motion.



Week Three

Completing as many as possible of the steps recommended is best for promoting recovery for your dog. Do the best you can; but don't worry if you can't accomplish all repetitions suggested on every day of at home therapy.

1 MOIST HEAT

Perform for 10 minutes prior to exercise
Refer to page 26 for detailed information on Moist Heat Therapy

2 MASSAGE

Perform for 5-10 minutes, 3-4 times/day
Refer to page 28 for detailed information on Massage

3 PASSIVE RANGE OF MOTION (PROM)

Perform 10 repetitions, 3-4 times/day
Refer to page 29 for detailed information on PROM

4 SHORT AND CONTROLLED LEASH WALKS

Perform for **10-20 minutes**, 3-4 times/day on a flat surface.
Refer to page 32 for detailed information on Controlled Leash Walks



5 GROUND POLE EXERCISES – NEW

Perform for no more than 5 minutes one time/day
Refer to page 34 for detailed information on Ground Pole Exercises

This exercise is to help with placement of feet, re-training normal gait, balance and coordination. Start with just a few times through the obstacles, rest and then repeat.

6 COLD THERAPY – DISCONTINUE

Post-therapy icing may be discontinued in week three as long as your dog is not experiencing apparent discomfort from exertion during exercises. The use of cold therapy may be resumed after exercises if your dog appears to be uncomfortable or if swelling increases.



Week Four

Completing as many as possible of the steps recommended is best for promoting recovery for your dog. Do the best you can; but don't worry if you can't accomplish all repetitions suggested on every day of at home therapy.

1 MOIST HEAT

Perform for 10 minutes prior to exercise
Refer to page 26 for detailed information
on Moist Heat Therapy

2 MASSAGE

Perform for 5-10 minutes, 3-4 times/day
Refer to page 28 for detailed information
on Massage

3 PASSIVE RANGE OF MOTION (PROM)

Perform 10 repetitions, once daily
Refer to page 29 for detailed information
on PROM

4 STRETCHING – NEW

5-10 minutes, 1-2 times/day
Refer to page 30 for detailed information
on Stretching

5 SHORT AND CONTROLLED LEASH WALKS

Perform for **20-30 minutes**, 3-4 times/day
Refer to page 32 for detailed information
on Controlled Leash Walks

6 GROUND POLE EXERCISES

Perform for no more than 5 minutes one
time/day
Refer to page 34 for detailed information
on Ground Pole Exercises



7 FIGURE EIGHTS EXERCISES – NEW

*Perform for 5 minutes, once time/day
Refer to page 36 for detailed information
on Figure Eight Exercises.*

Place 3-6 small obstacles in a row (e.g. 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.

8 SIT-TO-STAND EXERCISES (PUPPY SQUATS) – NEW

*Perform 5-7 repetitions, 2 times/day
Refer to page 35 for detailed information
on Sit-to-Stand Exercises*

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.



Proper sitting posture

If your pet is unable to sit with the knees flexed comfortably, re-try this exercise each week until they are able to sit with proper sitting posture (see photo).

Note: Be sure your dog's head is not dropping low when they stand. This may indicate they are not ready for this exercise.

Week Five

Completing as many as possible of the steps recommended is best for promoting recovery for your dog. Do the best you can; but don't worry if you can't accomplish all repetitions suggested on every day of at home therapy.

IMPORTANT

If you notice any sign of lameness or discomfort after increasing any exercises, revert to the previous week's level of activity. For example: If during week three you notice that your dog becomes very fatigued after walking for 20 minutes, return to walking for 10-15 minutes until your dog tolerates this level of activity well for a few days, and then try to progress to 15-20 minutes of walking.

1 DISCONTINUE MOIST HEAT, PROM AND MASSAGE

If your dog is consistently using the limb operated on, these modalities may be discontinued

2 SIT-TO-STAND EXERCISES

*Increase to **10 repetitions**, 2 times/day
Refer to page 35 for detailed information on Sit-to-Stand Exercises*

3 FIGURE EIGHTS

*Increase **repetitions** through obstacles, 2 times/day
Refer to page 36 for detailed information on Figure Eights Exercises*

4 GROUND POLE EXERCISES

*Increase daily as long as it is comfortable for your pet
Refer to page 34 for detailed information on Ground Pole Exercises*



5 CONTROLLED LEASH WALKS – NEW

(on gradual incline)

A – Walk on a leash for 20-30 minutes, 3-4 times/day

B – Perform incline work for 5-10 minutes, 1-2 times/day

Refer to page 37 for more detailed information on Incline Work

Walking on an incline shifts weight to your pet's hind legs, helping with limb use, flexion and muscle building in the hind legs. Steeper inclines can be crossed at an angle if a more gradual incline is not accessible. The affected leg (the one operated on) should be placed **downhill**.



Week Six

Completing as many as possible of the steps recommended is best for promoting recovery for your dog. Do the best you can; but don't worry if you can't accomplish all repetitions suggested on every day of at home therapy.

RE-CHECK APPOINTMENT REMINDER:

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Week Six is an important milestone in your pet's recovery. At this time, the required recheck with an x-ray will confirm healing and allow your MedVet doctor to ensure that progress is being made with return to more normal activity levels. An initial visit or recheck with the rehabilitation therapist can be scheduled to review appropriate exercises to maximize your pet's recovery.

1 SIT-TO-STAND EXERCISES

Increase to **10-15 repetitions**, 2 times/day

Refer to page 35 for detailed information on Sit-to-Stand Exercises

2 FIGURE EIGHTS EXERCISES

Refer to page 36 for detailed information on Figure Eights Exercises

3 GROUND POLE EXERCISES

Increase daily repetitions as comfortable for your pet

Refer to page 34 for detailed information on Ground Pole Exercises

4 LEASH WALKS – NEW

(with intermittent light trotting)

Start with short intervals of trotting during 20-30 minute walks 3-4 times/day and increase as tolerated. Maintain leash control of your dog, but allow a gradual increase in speed to a light trot when on a level surface. Do not allow your dog to become exhausted during this exercise.

IMPORTANT: DO NOT ALLOW ANY SUDDEN STARTS OR STOPS, i.e. FETCHING



5 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

Refer to page 38 for detailed information on Curb Work Exercises

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After Week Six

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

Weeks Six through Ten

1 STAIR WORK – NEW

5-7 steps in a row, 1-3 times/day
Refer to page 39 for detailed information on Stair Work

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.** Always keep your dog on a leash while doing this exercise.



Elevated Hip Sways

2 ELEVATED HIP SWAYS – NEW AT WEEK SIX

Perform for 5 minutes once a day for muscle building

Refer to page 33 for detailed information on Hip Sways

Stand your pet on a stable surface with both front feet on a step (about 3 inches high). Place one hand on each hip and gently rock back and forth.

3 CONTROLLED LEASH WALKS WITH INCLINE WORK AND INTERMITTENT TROTGING

Perform for 30 minutes total, with intermittent intervals of controlled jogging for 20 feet. Continue interval walks 3-4 times/day.

Refer to page 37 for detailed information on Controlled Walks With Incline Work

4 CURB WORK

Go 20 feet, 3-4 times/day

Refer to page 38 for detailed information on Curb Work Exercises



Weeks Eight through Ten

5 SIT-TO-STAND EXERCISES

*Perform 10-15 repetitions, 2 times/day
Refer to page 35 for detailed information
on Sit-to-Stand Exercises*

Place your pet on a slight incline facing uphill. Encourage to sit and then stand, watching for correct posture.



6 SUPERVISED OFF-LEASH OR LONG-LEASH ACTIVITY – NEW AT WEEK EIGHT

In a carpeted area about 10'x10', spend 5-10 minutes throwing toys or playing fetch. Limit duration based on your pet's fatigue and comfort levels. Try this the first time after a longer walk so your dog is more tired.

7 ASSISTED SWIMMING – NEW AT WEEK TEN

At week 10, swimming may be safely added to your pet's activities.



A Note to Our Clients –

On the following pages, you will find more detailed information on all of the therapy modalities and strengthening exercises provided in this guide. If these instructions are not clear, or if you are uncertain if your pet is ready for these exercises, please feel free to contact us for help.

Please be aware that a temporary increase in lameness may initially be seen after new activities. This is normal and it should resolve without additional care. Progressive, ongoing improvement is expected well beyond twelve weeks after surgery. If you have any concerns about your pet's progress, please do not hesitate to contact your MedVet Surgery or Rehabilitation team.

Sincerely,

**The Team at
MedVet Medical & Cancer Centers for Pets**

Therapy Modalities

MOIST HEAT THERAPY

COLD THERAPY

MASSAGE

PASSIVE RANGE OF MOTION (PROM)

STRETCHING

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Moist Heat Therapy



Moist heat is recommended over dry heat primarily because the moisture allows the heat to penetrate deeper into the tissue.

WARNING

Heat therapy is NOT to be used until 72 hours after surgery. It should not be used with an acute inflammatory process or over open wounds.

Before applying heat to your dog, test the temperature of the heat source to your own skin and hold for 10 seconds. If it is comfortable for you, it should be comfortable for your dog.

BENEFITS OF MOIST HEAT THERAPY

- Increases blood flow
- Increases tissue metabolism / repair
- Increases tissue stretch-ability
- Stimulates the healing process
- Decreases pain

HOW TO PERFORM MOIST HEAT THERAPY

Its benefits will be best employed if moist heat therapy is administered prior to performing range of motion, stretching and strengthening exercises.

A commercially available heating pack can be used, as can a small towel or washcloth soaked in warm water and wrung out. As with cold therapy, it will work best to administer moist heat therapy while your dog is lying down relaxed.

PLEASE DO NOT USE ELECTRIC HEATING PADS.

Each moist heat therapy session should last 10 minutes, ideally prior to exercise or other modalities. Refer to the week-by-week therapy guidelines to determine how often heat should be administered.

HEAT BEFORE ACTIVITY AND EXERCISE!

Cold Therapy

Cold therapy, sometimes called cryotherapy, is extremely important right after surgery, or after an acute injury. It works by stimulating constriction of the blood vessels, slowing circulation to the injured area and preventing further harm to tissue.

BENEFITS OF COLD THERAPY

- Decreases swelling and inflammation
- Decreases pain
- Helps to decrease healing time

HOW TO PERFORM COLD THERAPY

Commercially available gel packs, crushed ice wrapped in a cloth, or a bag of small frozen vegetables will all work well for providing cold therapy to a localized area on your pet. It is easiest to perform cold therapy on your dog while they are lying relaxed on their side. Place the cold pack directly over

or around the affected area. If your dog reacts to the direct application of the cold, try placing a thin towel or pillowcase between the cold source and the skin.

Each cold therapy session should last 15-20 minutes. Refer to the week-by-week therapy guidelines to determine how often cold therapy should be administered.

COLD AFTER ACTIVITY AND EXERCISE!



Massage



Nothing can be more comforting to your dog after surgery than your touch. The bond you share with your dog presents many healing benefits. It is important not to focus solely on the affected limb, but on your dog's whole body. Remember, the other musculoskeletal parts of your dog's body have been compensating for the injured or weakened tissue affected by the surgery. Over time, this puts strain on these body parts, and massage will help to relieve these symptoms.

BENEFITS OF MASSAGE

- Psychologically beneficial because it enhances your human-animal bond
- Relieves stress and anxiety
- Stimulates endorphin release, which decreases pain
- Improves circulation and lymphatic drainage
- Decreases swelling
- Decreases fibrosis by relieving contracted muscles and tendons
- Helps maintain muscle tone

HOW TO PERFORM MASSAGE

- With your dog lying on its side, gently stroke them from head to tail to initiate relaxation.
- At the beginning and end of each massage session, apply medium pressure, running your hand over your dog's entire body, starting at the neck, moving down to the tail and down each limb several times.
- Once your dog is relaxed, you can begin **ACTIVE** massage/rubbing.
- Maintain the same depth of pressure throughout your movements. NOTE: This active massage should always begin at the toes and work up the limbs.

Refer to the week-by-week therapy guidelines to determine how often heat should be administered.

Passive Range of Motion (PROM)

Passive Range of Motion is defined as the use of an external force (i.e. human hands) to moves the joint through its available range of motion without muscle contractions. This type of therapy is extremely important for your dog's knee after TPLO or TTA surgery. If a joint remains in one position for too long, the limb will lose flexibility, resulting in a slower return to activity.

BENEFITS OF PROM

- Improves joint motion after surgery
- Prevents contraction in the affected joint
- Prevents soft tissue inflexibility and shortening
- Prevents adhesion between soft tissue and bone
- Enhances joint lubrication

HOW TO PERFORM PROM

Make sure your dog is comfortable and relaxed prior to this exercise. It is best to perform PROM with your dog lying on its side. It is very important to ease into this exercise, making sure to not create any pain or discomfort.

- Support the limb both above and below the knee joint.
- Start with the lowest joint (digits or hock) and work your way up the leg to the hip.
- Try not to move more than one joint at a time.
- Try to perform 10-15 repetitions if your dog will allow you. Otherwise, perform the movements as best you can over a 5-minute time period.

Refer to the week-by-week therapy guidelines to determine how often passive range of motion should be administered.

NOTE: Refer to the MedVet website for a video demonstration showing proper passive range of motion technique:



www.medvetforpets.com → Services → Surgery → Rear Passive Range of Motion video link

Stretching



When a limb is not being used at all or is not being used normally, it can cause changes in the muscles of the underused leg and in the overused leg. Stretching will help prevent pain and discomfort in the legs as well as optimizing ability for maximum performance during therapy. Stretching is different from Passive Range of Motion exercise, because stretching requires gently forcing of the tissue slightly beyond its normal range of motion.

BENEFITS OF STRETCHING EXERCISES

- Increases flexibility in the joints exercised
- Increases extend-ability of muscle, tendons and surrounding joint tissue
- Counteracts forces that lead to contraction

HOW TO PERFORM STRETCHING EXERCISES

As in Passive Range of Motion 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 and extended knee position.

Refer to the week-by-week therapy guidelines to determine how often stretching exercises should be administered

Overview of Exercises

CONTROLLED LEASH WALKS

HIP SWAYS

GROUND POLE EXERCISES

SIT-TO-STAND

FIGURE EIGHTS

CONTROLLED WALKS WITH INCLINE WORK

CURB WORK

STAIRS

ASSISTED SWIMMING

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Controlled Leash Walks



The most important thing to remember when walking your dog during recovery from surgery is to maintain control over him/her to avoid sudden movement or excessive strain. SLOW walks are one of the easiest and most important exercises you can do to help your pet recover. Walks are both physically and emotionally good for your dog. A slow, controlled walk will encourage use of the affected limb.

BENEFITS OF CONTROLLED LEASH WALKS

- Encourages the use of the affected limb
- Prevents further disuse atrophy
- Increases strength
- Decreases pain



HOW TO PERFORM CONTROLLED LEASH WALKS

Initially your leash should be extremely short, your pet should be walking right at your side. At first, your walks will be for elimination purposes only and belly support may be required to help your dog walk and stand.

- Walks should be done on a flat, stable surface at a slow and steady pace until therapy guidelines direct otherwise.
- If your pet seems sore or fatigued, decrease walk time for a few days and then try increasing again
- Introduce light trotting and off leash activity only as directed by your doctor or the therapy guidelines provided by MedVet.

Refer to the week-by-week therapy guidelines to determine how often Controlled Leash Walks should be given and at what points increased pace or duration can be tolerated.

Hip Sways

BENEFITS OF HIP SWAYS

- Low impact exercise
- Encourages weight shifting to the affected limb
- Eliminates stiffness from joints and tissues compensating for the injured limb.

HOW TO PERFORM HIP SWAYS

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. If your pet resists weight shifting on the affected leg, put your hand on the lower part of that leg to hold it in place while gently swaying the hip to that side. With larger dogs, the sling may be used under the belly to gently sway the back end left and right.

Refer to the week-by-week therapy guidelines to determine how often Hip Sways should be performed.

DON'T FORGET TO PRAISE AND REWARD YOUR DOG FOR SUCCESSFULLY PERFORMING HIS/HER THERAPIES! THIS CAN BE WONDERFUL BONDING TIME FOR YOU AND YOUR PET.



Ground Pole Exercise



This exercise helps with placement of feet, balance and coordination.

BENEFITS OF GROUND POLE EXERCISES

- Helps regain coordination and balance
- Encourages weight shifting to the affected limb

HOW TO PERFORM GROUND POLE EXERCISES

- Place 4-6 evenly spaced obstacles in a row (like PVC poles or 2x4 wood).
- Place obstacles about 18'-24" apart.
- Have your dog walk slowly on a leash through the obstacles.
- Keep a short leash and prevent rushing or hopping over the obstacles.
- Start with 4 times through, rest and repeat. Gradually increase until you are doing 5-10 minute sessions with this exercise.



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Refer to the week-by-week therapy guidelines to determine how often Ground Pole Exercises should be performed.

Sit-to-Stand (Squats)

Maintaining range of motion in the hip, knee, and hock joints is critical after surgery. This exercise will use the relatively familiar motion of sitting to provide those benefits as well as hind leg strengthening. Using treats or some other emotional reward will help to maximize the benefit of the exercise. Proper form is the most important objective of this exercise.

BENEFITS OF SIT-TO-STAND EXERCISE

- Strengthens and builds mass in the major hind leg muscle groups
- Improves overall joint range of motion

HOW TO PERFORM SIT-TO-STAND

- Place your dog on a slight incline, facing uphill.
- Ask your dog to sit in order to evaluate his/ her comfort and form in the motion.
- Proper sitting should be “square”, with both hind legs flexed and equally under the dog’s hind end.
- Next, have your dog stand, watching for an equal push from both hind legs **and that their head stays held up high**. Repetition of the sitting and then standing motion is where the benefit lies. Start with 6 and gradually increase number of repetitions every few days.

Refer to the week-by-week therapy guidelines to determine how often Sit-to-Stand Exercises should be performed.

NOTE: If your dog sits with improper form, this exercise can be performed with your pet against a wall or in a corner to prevent the legs from kicking out to the side.

Figure Eight Exercises



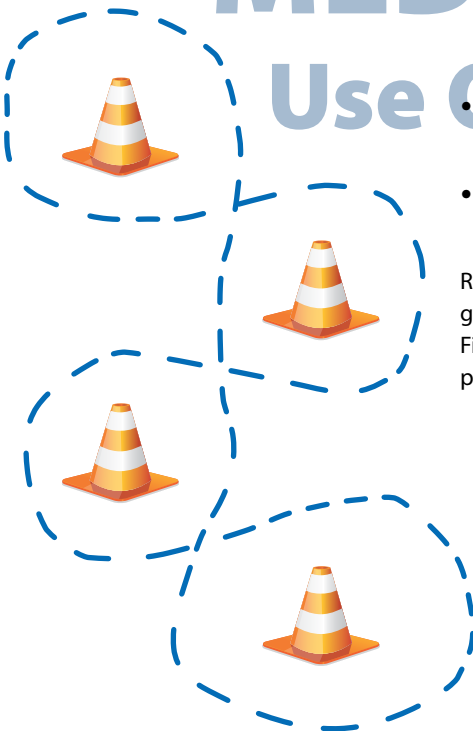
This exercise naturally encourages weight shifting to both legs and challenges balance and coordination.

BENEFITS OF FIGURE EIGHT EXERCISES

As with the ground pole exercises, this movement will help with restoration of your dog's balance, coordination and stability in motion.

HOW TO PERFORM FIGURE EIGHT EXERCISES

- Place 3-6 small obstacles in a row, approximately two body widths apart.
- Walk your dog **SLOWLY** through the obstacles 4 times, making figure eight pattern with **WIDE TURNS**.
- Keep a short leash for maximum control.
- Start with 4 repetitions, rest and repeat.



Refer to the week-by-week therapy guidelines to determine how often Figure Eight Exercises should be performed.

Controlled Walks With Incline Work

Adding inclines to your controlled walks helps to strengthen hind limbs by shifting your dog's weight to the back legs. Walking uphill also improves knee and hip extension. If your dog indicates discomfort, either find a less steep hill or cross the hill at an angle.

BENEFITS OF CONTROLLED WALKS WITH INCLINE WORK

- Encourages use of the affected limb
- Increases strength
- Increases muscle mass
- Improves joint range of motion

HOW TO PERFORM CONTROLLED WALKS WITH INCLINE WORK

1) Uphill and Downhill:

- Use a short leash and SLOWLY walk up and down the gradual incline.
- Observe for weight bearing on the affected leg.
- Discontinue if your dog is avoiding bearing weight on the affected leg.
- Start with 4 repetitions and gradually increase every few days as your pet is able.

2) Crossing a hill at an angle:

- This can be done if a gradual incline is not accessible.
- Position your dog so the affected leg is closer to the bottom of the hill.
- Keep your dog on a short leash and slowly cross the hill at an angle heading uphill.

Refer to the week-by-week therapy guidelines to determine how often Controlled Walks With Incline Work should be performed.



Curb Work

Stepping on and off a curb increases muscle strength, helps to improve balance, and benefits flexion and extension in the limb that underwent surgery.



BENEFITS OF CURB WORK

- Improves muscle strength
- Improves balance
- Improves flexibility

HOW TO PERFORM CURB WORK

- Select a curb that is of appropriate height. *(e.g. 10-25 pound dog should use a 2 inch curb, and larger dogs can use a 3-5 inch curb)*
- *Approach the curb alternately from the right and the left.*

Refer to the week-by-week therapy guidelines to determine how often Curb Work should be performed.

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Stairs

Incorporating stair climbing into the home therapy plan can be extremely beneficial if it is done at the right time. Be sure that your dog is consistently using the limb (bearing weight on it equally) during walking exercises before attempting the stairs. As with the Sit-to-Stand Exercise, climbing stairs utilizes all of the muscle groups of the leg.

BENEFITS OF STAIRS

- Strengthens and builds muscle mass in all major hind leg muscle groups
- Improves flexibility
- Improves range of motion

HOW TO PERFORM STAIR EXERCISES

- Select stairs that have good footing (carpet or cement vs. hard wood)
- Ensure that you have good leash control of your dog.
- Walk slowly up the stairs alongside your dog.
- Pay attention to proper placement of the affected leg and prevent hopping.
- Discontinue or decrease frequency if your dog indicates discomfort during the exercise.



Refer to the week-by-week therapy guidelines to determine how often Stairs Exercises should be performed.

Assisted Swimming



Swimming is a form of low impact exercise yet it requires high joint motion. Warm water is very soothing to the joints and muscles, but because of the high motion required, swimming should not be allowed until 10 weeks after surgery.

BENEFITS OF ASSISTED SWIMMING

- Increases muscle strength
- Increases range of motion, flexion and extension
- Increases cardiovascular stamina
- Soothes muscles and joints
- Hold your dog in place and allow controlled swimming with your support for 2 minutes, rest 1-2 minutes and repeat once.
- Do not allow your dog to jump in or out of the water.
- Your dog may want to stay in the water; but take this exercise slowly and do not overdo it!

HOW TO PERFORM ASSISTED SWIMMING EXERCISES

- Use of a canine flotation device is recommended.
- Lift your dog into the pool using a life vest or harness.
- Gradually increase swim session times over several days.

Refer to the week-by-week therapy guidelines to determine how often Assisted Swimming should be performed.



NOTE: If you don't have access to aquatic therapy, MedVet has on-site options. Contact MedVet Rehabilitation.



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MedVet would like to thank you and congratulate you for your critical role in your pet's recovery.

Your commitment to your pet's at home rehabilitation will help to ensure that normal activity is resumed and that your pet can have a high quality of life as a member of your family.

NOTES AND REMINDERS:

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