

Rehabilitation Plan for Post-Surgical Stifles

Goals:

The goals of rehabilitation after surgery on the stifle(knee) are to control inflammation, maintain range of motion and joint health, reduce muscle spasm and muscle atrophy (loss of muscle), control pain, improve weight-bearing, and to strengthen muscles.

Home Environment Requirements:

Adjustments to the home environment are going to be essential for a positive outcome after stifle surgery.

Confinement: Your pet will be required to be confined to a crate, small gated off room, or a small room with minimal furniture. If you are going to confine your pet to a small room, there are a few things to consider. The room should have adequate bedding so that your pet is comfortable. The floor should have adequate traction so that your pet does not slip and fall. This can be accomplished by placing carpet in the area or using nonstick bathmats. Adequate traction on the floor should also be applied anywhere your pet is going to walk in your home. If you are going to use a gate to keep your pet in the room, you will want to make sure your pet cannot jump the gate.

Restrictions: Your pet will have some exercise and mobility restrictions that will be critical to follow for a positive outcome after stifle surgery. The most important restriction required is that you will not be allowed to jump. There is to be NO JUMPING on/off the bed/couch, in/out of the car, and especially NO JUMPING up on you. Jumping is an explosive activity, which can lead to over extension of the stifle joint, and can impede the healing process, but it can also weaken the surgical repair. Your pet will NOT BE ALLOWED TO JUMP for 3 months.

Stairs: Stair climbing is restricted to your pet until your Care Team gives the all-clear. Stair climbing can cause unwanted stress to the joint and if your pet is not controlled, it can be an explosive activity. If you are unable to avoid stairs, you will need to pick up your pet and carry him/her up the stairs. If you are unable to carry your pet, then some precautions will need to be followed:

1. You must have a leash attached to your pet before reaching the stairs. This will restrict your pet from rushing up or down the stairs.
2. You will need to support your pet with a sling, towel, or bed sheet. You will place this sling, towel, or bed sheet right in front of your pet's hind legs and under his/her abdomen. This will

allow you to support your pet's weight on his/her hind end which will decrease the amount of force that will be applied when he/she goes up/down the stairs.

3. The stairs should also be blocked off whenever your pet is not going to be using them. This will prevent unwanted and unsupported use of the stairs.

Post-Surgery Expectations:

- Your pet might initially limp or avoid putting weight on the operated leg. However, gradual improvement should occur over weeks as your pet starts bearing more weight, reducing the limp.
- If your pet is overly active on a day, subsequent limping might be observed. Rest your pet for 24 hours and apply ice to the limb for 20 minutes, 2-3 times daily. If no improvement within 24 hours, consult your Care Team.
- Typically, your pet's condition should improve daily.

Common Postoperative Occurrences:

1. **Swelling:** Swelling might be present around the incision site and the stifle area. This should gradually diminish over 3-4 days after surgery.
2. **Hock Swelling:** Swelling around the hock (ankle) area might develop a week post-surgery, lasting around 2-3 days. Bruising could appear around the incision or on the leg.
3. **Discharge:** A small amount of clear or blood-tinged discharge might be noticeable from the incision site.
4. **Discomfort:** Your pet may exhibit discomfort in the operated leg and the incision area.
5. **Warmth:** The stifle and leg may feel warmer than usual to the touch.
6. **Appetite Changes:** Your pet's appetite could decrease temporarily, typically resolving within a few days.
7. **Bowel Movements/Urination:** It is possible that your pet may not have a bowel movement for up to 5 days and might have infrequent urination. This could be due to factors like reduced appetite, pain medication effects, or discomfort.

Signs and Symptoms to Monitor:

- Prolonged swelling lasting beyond 3-4 days.
- Bruising occurs outside the incision area.
- Unusual discharge with a milky appearance or foul odor. Also, excessive bleeding does not cease.
- If your pet experiences intense pain resulting in attempts to bite, crying out, or if the prescribed pain relief methods are ineffective.
- Loss of appetite and/or occurrence of diarrhea in your pet.

Progressive At-Home Rehabilitation Program Week by Week:

Preparation before Starting:

- Understand each pet's recovery varies.
- Confine your pet when not exercising.
- Follow the exercise sequence. Adjust exercise intensity to your pet's pain tolerance.
- If pain persists, consult Care Team
- Limit intense activities for 8 weeks (about 2 months) or as directed.
- Notify Care Team if exercises are challenging or if your pet is hyperexcitable.

Immediate to 72 Hours Post-Surgery:

- Goal(s): Manage pain, control swelling, enhance joint motion, counter muscle weakening.
- Evaluate: Pain level, gait, joint range of motion, thigh size, weight.
- Progression Criteria: Steady toe-touching, reduced pain and swelling, ROM within specific limits.
- Cryotherapy (Icing): Use ice for 15 minutes, 3 times daily over 72 hours.

Passive Range of Motion (PROM):

- Goal(s): Enhance flexibility / joint mobility, reduce swelling, and increase muscle development.
- Slowly and gently flex and extend the affected leg. You want to move your pet's leg within a comfortable range of motion.
- Do not add any rotation or force to this exercise. This should not result in pain or discomfort.
- Perform 10-20 repetitions, 2 times daily.

Scan for Post Op Recovery Video



Gentle Massage:

- Goal(s): Enhance circulation, reduce edema, and promoting muscle relaxation, alleviating anxiety, and maintaining muscle tone.
- Begin at the toes and work your way up your pet's leg.
- Massage for 5-10 minutes, 2-3 times daily.

Slow and Short Leash Walking:

- Use a short leash to control speed and direction.
- Slow, controlled walks outside for 5 minutes, 3-4 times daily.

72 Hours to 2 Weeks Post-Surgery:

- Goal(s): Continue pain management, swelling control, and increase range of motion (ROM).
- Evaluate pain level, gait, joint motion, thigh size, weight.
- Use Moist Heat: Apply for 10-15 minutes before exercise.
- Sling/towel supported walks.
- Criteria for Progression: Steady weight-bearing, minimal pain, appropriate ROM.

Exercise List:

- **Cookie Stretches:** Have your pet take a treat from the paw of the leg that was operated on.
- **Three-legged stance:** Lift the unaffected hind limb off the ground. This will force your pet to bear weight on the leg that had surgery. You will want to hold this for 15-20 seconds. Rest for 20 seconds and repeats for 10-15 reps.
- **Bootie:** Place sock/bootie on good leg and walk around house for short periods of time.
- **Two-legged stance:** Lift the unaffected hind limb and the front limb on the same side as the surgery at the same time. This will force your pet to stand on two legs. Hold position for 10-20 seconds. Rest for 30 seconds and repeat 10-15 reps.
- **Step Stances:** Lift the front legs and chest off the ground. Place front limbs on a small and stable pile of books or up a couple flights of stairs. Hold this position for 30 seconds. Rest for 30 seconds and repeat 10-15 reps.
- **Sit to Stand:** Starting 4-week post-surgery. Make your pet sit, while using a treat, have your pet stand and come to you. If you notice your pet wanting to sit on one side vs the other, you can always make have them sit in a corner, squarely. This is equivalent to a doggie squat. Start with 5 reps working towards 20 reps 2x/daily.
- **Stair Climbing:** Between 4-6 weeks post-surgery, stair climbing use can resume. Starting with a couple stairs, have your pet go up and down the steps. 5 reps/day for 3 days. Supporting your pet with a sling or towel under belly is recommended if needed. It is imperative that you do not give your pet free access to stairs. Keeping them on leash is a must.
- **Cryotherapy:** Please ice your pet's stifle joint 20 minutes as needed following every exercise.

Two to Six Weeks Post-Surgery:

- Goals: Normal joint motion and increased weight-bearing.
- Evaluate pain level, gait, joint motion, thigh size, weight.
- Choose 2-3 exercises per session.
- Gradually increase leash walking time.
- Walk pet 2-4x/daily, gradually increasing walk time by 5 minutes/week. Monitor signs of fatigue, pain, and quality of movement. Decrease walk time if any signs are displayed.
- Begin incline walking and slow jogging on stable terrain at 4-6 weeks 5 mins/day.
- Incorporate figure 8s and weight-bearing exercises.
- *Criteria for Progression: Consistent weight-bearing, reduced pain, appropriate ROM.*

Six to Twelve Weeks Post-Surgery:

- Improve limb usage, muscle strength, endurance.
- Evaluate pain level, gait, thigh size, weight.
- Begin trotting with intervals: Trott with pet 5-10 min/day increasing to 25 minutes 3x daily.
- Uphill Incline Jogging: Starting at 1-2 min intervals increasing to 5-10 min intervals per session.
- Continue weight-bearing exercises.
- *Criteria for Progression: Minimal lameness, no pain, near-normal ROM.*

Twelve Weeks Post-Surgery and Beyond:

- Enhance speed, strength, endurance, and return to normal activity.
- Evaluate pain level, gait, weight.
- Run up/down hills. Trot upstairs
- Gallop while playing ball.
- Regular jogging for longer distances.
- Cryotherapy after exercise as needed.
- *Criteria for Progression: No lameness or pain with activity.*

Consult your care team if you encounter difficulties or have questions about your pet's rehabilitation process.