

REHABILITATION FOLLOWING KNEE SURGERY

Physical therapy after knee surgery can help dogs recover more quickly. The short-term goal is to protect the dog from damaging the repaired knee. The long-term goal is to return the dog to a healthy functional state. Osteoarthritis will inevitably develop but we hope to decrease the severity of discomfort and allow for a good quality of life. We expect recovery to take approximately 10-12 weeks but this can vary depending on the dog and the amount of arthritis affecting the joint prior to surgery.

Following are some guidelines to follow in achieving recovery from stifle surgery. The following link contains some nice videos which help to demonstrate some of the instructions below:

<http://topdoghealth.com/rehabcenter/rehab-videos/>

1. Week 1: Rest and Recovery

To help decrease swelling and inflammation, **icing** of the knee is very important and can begin immediately following surgery. Cold gel packs protected with a cloth or towel should be applied for 10-15 minutes several times daily. Icing should be continued for the **first 72 hours** (3 days) post surgery. **Day 3-14 post surgery**, a heating pack/bag should be used. The **heating** pack can be used for 15 to 20 minutes on the knee (ensure it is not too hot, test on yourself first) **BEFORE** the PROM exercises, and then **ice** the knee for 10-15 minutes **AFTER** the PROM exercises each time.

To go outside, your dog **MUST** be on a leash at all times. A harness is recommended over a collar leash to prevent excessive pulling. If needed, a sling can be placed in front of the hind legs to offer support. A piece of cloth or towel can be used for this purpose. Slow on leash walks once or twice a day of 3-5 minutes in length can be started between day 1 and 14 post surgery.

To preserve the range of motion (ROM) begin **passive ROM** by gently gliding the limb 3-4 times a day. These consist of flexing and extending the hip, stifle (knee) and hock. Repeat for approximately 15-25 repetitions 3-4 x per day. This helps improve flexibility and keeps the cartilage healthy.

2. Week 2-3: Recheck and Suture Removal

Sit to stand repetitions should be practiced, especially if ROM exercises are difficult. This is achieved simply by asking your dog to sit and then stand repeatedly. Continue with **active exercise** in the form of slow **5 minute leash walks** twice a day.

To allow for maintenance of full ROM and to decrease adhesions from forming along the scar line, apply **cross fiber massage** 2-3 times per day. This can begin along the scar 14 days after the surgery incision site is healed. This usually occurs in the 2nd week after surgery. Cross fiber massage is a deep friction massage along the scar tissue. The skin is rolled under the fingertips as they walk across the skin. This type of massage is designed to break down abnormal scar tissue and promotes healing. Soft tissue massage is applied to the limb to increase circulation and facilitate muscle relaxation.

3. Week 4-5: Increased Activity

Short 10 minute walks are allowed 2-3 times a day, to maintain muscle tone and strength. The dog must still be **kept on a leash at all times during the walks**. Encourage walking at a slow pace on even surfaces. You may add **weight shifting exercises** to guide normal joint function and to promote weight bearing-can do 3 leg exercises where the unaffected hind leg is held up. An **obstacle course** of items such as pool noodles can be set up in a hallway at home to encourage use and flexion of the leg.

4. Week 6-8:

Passive ROM exercises and weight shifting should continue. Bicycle movements (lying and standing) and gentle backwards stretching are recommended. Obstacle course work can be increased in difficulty. Walks should be increased to 20-30 minutes twice daily. The terrain can now be **varied** and low grade **incline**s can be approached. Large **figure of 8 patterns** can be practiced and parallel curb walking can begin. This involves walking along a curb and stepping up and down from the edge as you walk along. Slow trotting in a straight line is allowed. Your dog is welcome to swim if this is convenient.

5. Week 8-10:

Figure of 8 patterns can now be made smaller and can be done at a trot. **Stairs** can be done with the assistance of a sling.

6. Week 10-12:

Some **off leash work** can now begin if appropriate. The interval should be slowly increased depending on your dog's level of comfort.

****Note: If at any time your pet becomes sore with the exercises, reduce the activity by 50% for 3-4 days, then try again by gradually returning to the previous goal. ****

We suggest that your dog is maintained on a source of Omega-3 fatty acids to promote joint health. Specific joint health diets are also recommended provided there are no other specific diet concerns for your dog. Supplementation with a good quality source of glucosamine and chondroitin may be of some benefit. Keeping your dog in lean body condition will be VERY helpful in preventing pain associated with arthritis.

If you have further questions do not hesitate to contact us. Thank you!