



## **Post Surgical Management of Patellar Luxation**

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If your dog has undergone surgery for patellar luxation, exercises may be recommended for you to perform on your pet, up to three times daily, in order to enhance their recovery. **It is strongly recommended that a Chartered Veterinary Physiotherapist assesses your dog to advise you on the stages of rehabilitation as this programme may need to be modified to prevent surgical failure or complications. To find you nearest Chartered Veterinary Physiotherapist (ACPAT Category A) visit [www.acpat.org](http://www.acpat.org)**

### **First 5 days Immediately Post Surgery**

- ***Ice:*** Apply an ice/cold gel pack in a damp t-towel to the knee (stifle) for 10 minutes, two to four times daily, to reduce heat and inflammation of the joint, especially for the first 72 hours.
- ***Effleurage massage:*** starting at the toes, with your fingers together, slowly push up with a medium pressure towards the ankle, knee, to the bottom and over and around into the groin region to facilitate lymphatic drainage and blood circulation and reduce local swelling. Repeat for 60 seconds.
- ***Passive Range of Movement Exercises:*** to maintain or restore normal range of movement in the affected joints and prevent joint stiffness caused by muscle shortening. These are best performed with your pet in side lying. Following surgery, these exercises may be uncomfortable or your pet may show some anxiety. Let your animal's comfort be your guide.
  1. With one hand in front of the knee and one hand behind the hock or ankle (tarsus), slowly bring the knee up towards the spine and slowly

extend the hip out backwards to point of comfort only. Repeat this 10 times.

2. With one hand in front of the knee and one hand behind the ankle, slowly bend the knee taking the ankle towards the bottom bone and slowly straighten. Repeat this 10 times.

- **Husbandry Advice:** NO impact activities i.e. jump on/off sofa or bed, up and down stairs, jumping in/out of car. NO slips or trips. NO playing with or without other dogs.
- **Walks:** recommended 3 x 5 minutes daily lead only encouraging weight bearing of the affected leg by walking very slowly. This is otherwise known as a toilet walk.

### **After 5 days and up to 3 Weeks Post Surgery**

- **Contrast Hot and Cold therapy:** Heat may be used to increase blood flow to enhance tissue healing and reduce joint stiffness. This may be done using a heat pack or wheat bag for 10-15 minutes. Use towels to moderate the heat output and check on your own skin prior to application on your pet to prevent burning the skin. Apply an ice/cold gel pack in a damp t-towel to the stifle for 10 minutes after treatment to reduce heat and inflammation of the joint.
- **Kneading Massage (Affected Leg):** to increase the blood flow and warm up the muscles in preparation for passive movement and active exercises. For the hamstrings (back of thigh bone) and quadriceps (front of thigh bone), using your fingers behind the muscle and thumb on top of muscles from where you are sitting, perform slow, medium pressure, circular movements up and down the muscle groups. For the gluteals (bottom muscles), fingers only and together starting at the bottom bone (adjacent to the tail), perform small circular movements up towards the back and over the muscles alongside the spine. 60 seconds for each muscle group.
- **Passive Range of Movement Exercises (as above)**

- **Stretching Exercises:**
  1. With one hand in front of the knee and one hand behind the ankle, take the leg back **very gently** (in line with the body) to stretch the front of the hip. Hold 30 seconds. Repeat 3 times.
  2. With the hands as above, **slowly and gently** take the thigh until it is horizontal with the spine and straighten the knee to stretch the back of the thigh (hamstrings). Hold for up to 30 seconds. Repeat 3 times.
- **Strengthening Exercises:**
  1. Ask the patient to stand from sitting, encouraging square sitting by placing the limbs flexed underneath the patient. Repeat 5-10 times three times daily.
  2. In standing with both hind feet on the ground, slowly push over the bottom muscles to encourage patient to push back against you. Hold this for 10 seconds, repeat 5 times left and right.
- **Walks:** recommended 3 x 10 minutes daily lead only at two weeks, encouraging weight bearing of the effected leg by walking very slowly.

#### From 3-6 weeks Post Surgery

- ***Kneading massage, passive range of movement, stretching and strengthening exercises, if required, as above***
- **Strengthening Exercises:**
  1. 3 leg standing - with one hand lightly supporting under the stomach and the other hand raising the good hind limb, encourage the patient to bear the weight on the standing limb for 10 seconds, repeat 5-10 times.
  2. Place the patient's two front legs on a low step to increase the load on the hind limbs. Maintain this position for 30 seconds and repeat 3 times.
  3. **From 4 weeks** 2 leg standing – first raise the forelimb on the same side as the operated limb, then raise the diagonal un-operated hind

limb and encourage the patient to hold this for up to 10 seconds.

Repeat this 5-10 times.

- **Walks:** recommended 3 x 10 minutes daily lead only encouraging weight bearing of the effected leg by walking very slowly. Add 5 minutes to each walk per week remaining on the lead i.e. 15 minutes in week 4, 20 minutes in week 5 and Check X-ray is usually recommended at week 6 before further progression is made.

### **Post X-ray (6-9 weeks post surgery)**

- **Strengthening Exercises:**
  1. Place 5-6 poles 8-18 inches apart from each other (depending on the size of the patient and allowing one hind footfall between two poles) and encourage the patient to step over these 6 times. To increase difficulty raise the poles 3-4 inches from the ground to encourage flexion (bending) of the knee and increase the distance slightly to encourage full extension (straightening) of the knee. Progress into trot at week 9.
  2. **From 6 weeks** (NOT if inflammation of the patellar tendon is suspected) Supervised steps – with lead control, walk up and down 3-4 steps, increasing the number gradually to a flight and repeat 6 times. It is important that the patient does not scoop his limb outwards as he/she steps up or down to avoid flexing the knee.
  3. Add gentle inclines, gradually increasing, into your walk exercise.
- **Walks:** Add 5 minutes to each walk per week remaining on the lead.
- **Water Treadmill Hydrotherapy:** this will assist with quadriceps (thigh muscle) strengthening and regaining normal stride length. Please contact your Veterinary Surgeon for details of local members of the Canine Hydrotherapy Association (CHA) or alternatively, view their website [www.canine-hydrotherapy.org](http://www.canine-hydrotherapy.org)

### **Return to Play Stage (9-12 weeks post surgery)**

- Running straight off lead work. Preferably the dog should be walking for up to one hour before off lead work begins. It is advised that the patient is let off the lead at the end of a walk in a controlled and calm environment to avoid being over excitable. (Approx time scales to begin off lead 8 weeks if dog not excitable, 12 weeks if excitable)

Keeping your dog on the lean side is a good idea, since excess body weight stresses the joints, and it's also a good idea to give your dog glucosamine supplements to support joint health.