

# Patella Luxation Surgery

## The Condition

The patella (knee cap) normally sits in a groove called the trochlea which it tracks when the stifle (knee) bends. Patella luxation ranges in severity from the mildest cases where the patella can only be manually luxated (Grade 1) to the most severe where the patella is permanently displaced (Grade 4). Luxation can occur towards the inside or the outside of the leg.

Patella luxation is caused by poor alignment of the hip, thigh muscles and stifle. Signs of patella luxation range from occasional skipping to bunny hopping and ongoing lameness.

## The Surgery

During the surgery the inside of the joint is examined to assess the health of the cartilage, the presence of arthritis and check the cranial cruciate ligament is intact. Your pet will have one or more of the following surgical treatments to stabilise their patella;

- Tibial tuberosity transposition (TTT): This procedure is carried out in all skeletally mature patients. A cut in the bone is made to enable realignment of the patella tendon allowing the hip, thigh muscles and stifle to move straight up and down the leg rather than from side to side.
- Trochleoplasty: If the trochlea groove is too shallow the patella can readily luxate. The trochlea groove is deepened whilst preserving the joint cartilage. This procedure isn't required in every patient.
- Imbrication: When the patella luxates, it stretches the soft tissue around the joint. Imbrication describes the technique used to tighten these soft tissues.



## Post operative care

Patella luxation surgery is a major procedure and it is important to follow these instructions closely for best chance of a successful outcome.

### Surgical Wound:

Your pet will have a wound on the outside of their leg. Please check this area twice daily, and report any swelling, redness or discharge from the wound.



### Medication:

Your pet will be prescribed antibiotics and pain relief, it is important to follow instructions to avoid complications. Please report any changes in demeanour, vomiting or diarrhoea to your vet immediately.



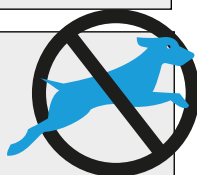
### Exercise restriction:

**Strict rest for six weeks is essential for uncomplicated bone healing.**

This means confinement to a cage or room with no furniture to jump on and off, especially when your pet is unsupervised. Stairs should be avoided and toileting should always be on a lead.

### Gentle Exercises:

Once your dog becomes more comfortable, start gentle passive flexion and extension exercises of the injured joint. Your clinic will show you how to do this. Start with 5 repetitions twice daily, and increase to 20 repetitions three times daily. Stop immediately if your dog resents this, or seems painful.



### Cold & Warm Therapy:

For 3 days post operatively – use an ice pack wrapped in a towel applied to the outside of the joint (not directly over the wound) for 5-10 mins 2-3 times daily.

Some swelling of the operated leg is to be expected and cold therapy and gentle massage from the toes up towards the stifle will reduce this



### Hydrotherapy:

This can be started once the surgical wound has healed under the guidance of your vet.



*Post operative care (continued)*

**Physiotherapy:**

**Physiotherapy videos:**

Videos of the physiotherapy exercises can also be seen on our website [www.provetsurg.co.uk](http://www.provetsurg.co.uk)

*2-4 weeks post-operatively*

**Elevated Sit-Stand**

Place a small box or large book behind your pet's back legs and ask them to sit onto the item. Then ask them to rise back into a stand. Repeat 3-4 times twice daily. If the operated leg flops out to the side, try doing the exercise with the operated leg alongside a wall.

**Weight Shifting**

Stand your dog on a firm surface. Stand behind them and pop your arm under their belly to stop them sitting down (without holding them up). Using a treat, slowly lure them to turn their head round to their ribs on the right side, hold this position for a few seconds and then slowly lure them round to the ribs on the left side. Repeat 3 times each side twice daily.

In the same position, bring the treat between their front legs to lure their head down and between the front legs. This encourages them to shift their weight onto their back legs. Repeat 4 times twice daily.

*4-6 weeks post-operatively*

**Sit to stand against a wall**

Place your dog with the operated leg alongside a wall. Ask for a sit onto the floor and then a stand. Ensure the operated leg is not falling out to the side. Repeat 4 times twice daily.

**Weight shifting on a wobbly surface**

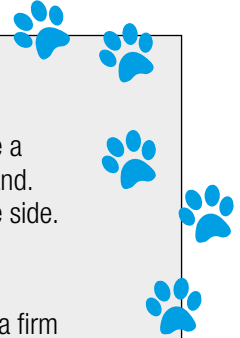
Progress from weight shifting using a treat on a firm surface to performing the exercise with you pet standing on a piece of foam/other soft surface.

**Lateral Weaving**

Place six items in a line with a space your dog's length in between them. Encourage your dog to SLOWLY weave in and out of the cones/items. Repeat 4 times twice daily.

**Low Pole Work**

Place poles or items close to the ground for your dog to step over. Make sure there is a dogs length between each item. SLOWLY walk your dog over the items to encourage lifting and placing of each leg. Ensure they do not jump or hop their back legs over. Repeat 4 times twice daily.

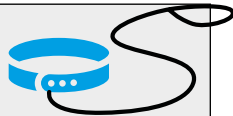


**Introducing Exercise:**

After four weeks of confinement, cats can be allowed freedom of a single room (if they are walking well).

Dogs can start lead walks of 5-10 minutes twice daily.

X-rays will be taken at 6 weeks post-operatively to check the implants and boney healing. If there are no concerns then your pet will be allowed to gradually return back to exercise. Dogs can begin lead walking for 5 minutes twice daily, and add 5 minutes to walk length per week until they are comfortable on 30 minutes at which time they can have off lead time. Cats will be allowed increasing freedom inside the house until 12 weeks post-operatively at which point they can have access outdoors.



**Outcome**

In the majority of cases patients will be able to return to their usual activity levels.

**Complications**

Complications can occur with any surgery, and in approximately 5% of cases, the patella remains unstable and this requires a repeat surgery. Infection can occur despite the use of antibiotics and sterile techniques and usually means that the implants will need to be removed after the bone has healed. Some patients have arthritis, particularly if their patella luxation has been chronic and the cartilage inside the joint has been worn away.

