

Patella (kneecap) Luxation

What is a patella and what is its role?

The patella is a bone seated within the stifle (knee) extensor mechanism; it transfers the force from the quadriceps muscle onto the tibia (shin bone).

With every stifle flexion and extension, the patella moves up and down in the groove on the bottom part of the thigh bone, just above the knee.

What is a patellar luxation?

This is a condition where the patella does not sit tightly in its groove, and can be displaced. The condition can vary from mild (Grade I) to severe (Grade IV), depending of the degree of luxation.

Most commonly, the patella luxates medially (towards the body midline), but a lateral luxation (away from the body midline) is also possible.

Patellar luxation is almost always a developmental condition, caused by the poor alignment of the hind limb in combination with the underdevelopment of the trochlear groove.

The treatment of patellar luxation

Most cases of grade 1 (low grade) patellar luxation do not require surgery.

Surgical treatment of a luxating patella generally involves:

- ❖ Trochleoplasty – deepening of the groove
- ❖ Tibial tuberosity transposition (TTT) – the shin bone is cut in order to move the patella's ligament attachment site into a more optimal alignment. The new position is secured with orthopaedic pins and wires.
- ❖ Imbrication (tightening) of the soft tissues



***** The information sheet provided is your guide for post-operative care following surgical correction of a luxating patella. Please read and follow the instructions in order to achieve the most optimal outcome.

Post-operative care



Wound care - If stitches are present, these should be removed 10-14 days after the operation. Monitor the surgical site twice daily, and contact your vet if you notice any discharge or swelling.



Medication - Your dog will be discharged with a combination of anti-inflammatory pain relief and antibiotics. It is important to follow the instructions. Any vomiting, diarrhoea, or other changes should be reported to your vet immediately.



Diet - It is advised to reduce the calorie intake by about 20% during the initial 6 weeks after the operation. Drastic changes in the type of food offered should be avoided.



Follow-up care - Six to eight weeks after the operation, follow-up radiographs will be taken. This allows us to evaluate bone healing, and make sure that there are no implant-related complications. If there are no complications at this time, you may start to gradually introduce exercise. For the first week (after this follow-up), your dog can be walked for 5 minutes, twice a day.

For each subsequent week, each walk can be increased by 5 minutes (i.e. 10 min twice daily on week 2, 15 min twice daily on week 3, etc.). A steady progress is expected during that time. If your dog becomes increasingly lame, contact your vet immediately. Once we reach 30 minutes of twice daily walks, if there are no concerns, your dog can start exercising off-lead.



Complications - The complication rate is low, but as with any surgery, they are recognised. These include risks and complications associated with general anaesthesia, infections of the surgical site, implant failures, bone fractures, and arthritis. Some cases may benefit from additional corrective surgery, if the patella continues to luxate after the first operation.



Cold and warm therapy - Some swelling around the surgical site is normal, but cold and warm therapy can be performed as an at-home treatment to aid the normal recovery process.

Cold compressions will be most helpful for inflammation and discomfort during the first 3 days - use an ice pack wrapped in a towel, and apply this to the surgical site, for 15 minutes, 2-3 times daily.

After 3 days, swap to a warm (not hot!) pack for the next 4 weeks. This stimulates blood flow to the surgical site, which is important for tissue healing.

If any of these exercises seem to make your dog lame, stop them immediately and contact your vet.

Prognosis

The vast majority of patients regain good to excellent function of the limb following surgical correction of a luxating patella.

Most dogs do not require medication once recovery is complete, but a proportion of cases develop osteoarthritis, which can be medically managed.

Some pets require surgical correction on both legs (bilateral patellar luxations) – these are generally treated approximately 6 weeks apart.



IF YOUR PET DEVELOPS A SUDDEN ONSET OF LAMENESS AFTER THE INITIAL IMPROVEMENT, PLEASE CONTACT YOUR VETS IMMEDIATELY.

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Following this advice should help your pet recover quickly however if you have any questions please contact your veterinary practice.