



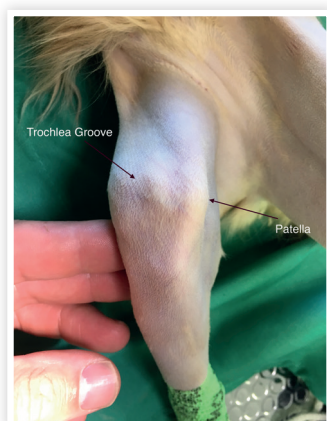
Medial patellar luxation (MPL) in the cat

The Surgery

The patella (kneecap) normally sits in a groove at the end of the femur, called the trochlea. It tracks within the trochlea when the stifle (knee) is flexed and extended. Patellar luxation is displacement of the patella out of the trochlea, and can range in severity from a Grade 1, where the patella pops in and out of the trochlea with manipulation, to a Grade 4 where the patella is permanently displaced out of the trochlea. This most commonly occurs to the inside (medial) of the stifle but can also occur to the outside (lateral) of the stifle. It is a developmental condition which means it develops as the cat grows and is caused by poor alignment of the hip, quadriceps muscles and stifle. Surgery is indicated in any cat that shows clinical signs as a result of the condition. The condition is commonly bilateral (affecting both legs) so often, the cat shows a crouched hind limb gait which can mimic hip or neurological disease. The earlier the surgery is done, the better the outcome as there will be less damage to the joint surfaces (articular cartilage).

Cats with MPL vary from dogs in a number of ways:

- Their patella is more mobile naturally, so this can often be misdiagnosed as a Grade 1 luxation.
- They don't commonly have the same skeletal deformities of the tibia and femur found in dogs with patellar luxation, so rarely need an osteotomy (cutting of the bone).
- Their patella is wider than in dogs.



The Procedure

- **Trochleoplasty:** This is widening and deepening of the trochlea and involves lifting the articular (joint) cartilage surface by cutting a wedge or rectangular block, removing the required amount of underlying bone, and replacing the overlying cartilage block. This is usually carried out in every case of feline MPL.
- **Soft tissue stabilisation:** This involves tightening (imbrication) of the lateral (outside) tissue next to the patella as well as release of any tight medial (inside) tissue. It also involves placing an absorbable suture sling around the patella which is anchored to a small bone behind the femur (fabella), which holds the patella in place whilst the soft tissue heals.
- **TTT/TCT (Tibial Tuberosity/Crest Transposition):** The portion of the bone that the patella tendon attaches to is cut with a bone saw, and moved laterally to align the thigh muscles with the stifle (allowing the patella to track correctly). It is then secured in its new position with bone pins, and in some cases orthopaedic wire. This is rarely required in cats.

The Aftercare

Patella stabilisation surgery is a major procedure and it is important to follow these instructions carefully to have the best chance of a successful outcome.

Surgical Wound: Your cat will have a wound on the outside of its leg. You should check this area twice daily, and report any swelling of, weeping from or breakdown (opening) of the wound.

Medication: You will be given a combination of medications for pain relief and prevention of infection. It is important you follow instructions closely to avoid complications. Any changes in demeanour, vomiting or diarrhoea should be reported immediately to your vet.

Exercise Restriction: Strict rest for six weeks is essential. This means confinement to a cage with no opportunity to jump on and off furniture, especially when your cat is unsupervised.

Cold & Warm Therapy: For the first three days after surgery, use an ice pack (or a bag of frozen vegetables) wrapped in a damp tea towel to apply cold therapy to the operation wound for 20 minutes two to three times daily. For the next three days apply a warm pack (or a hot water bottle wrapped in a towel) to the wound for 20 minutes two to three times daily. Cats can be more difficult to persuade to tolerate this than dogs - if your cat is getting distressed, don't persist.

Gentle Exercises: Once your cat becomes more comfortable, start gentle passive flexion and extension exercises of the stifle 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 cat resents this, or seems painful.

What To Expect

The aim of the surgery is to stabilise the patella so that it tracks correctly in the trochlea and your cat can have normal mobility and unrestricted exercise. This is achieved in the majority of cases. As with any surgery however, complications can occur. The most common complication is ongoing instability of the patella. Around 5% of cases are improved, but still have an unstable patella and require repeat surgery.

The next most common complication is infection. Despite modern antibiotics, preparation techniques and disposable drapes and gowns, this occurs in around 3% of cases. If a TTT/TCT is performed there can be issues with the implants e.g. breakage, migration and these may need to be removed once the bone has healed. Very rarely you may see fractures of the tibia or lateral patellar luxation.

Older animals especially, may have arthritis in the joint at the time of surgery that can cause chronic stiffness and may require medication or joint supplements. Patellar luxation can occasionally be associated with cranial cruciate ligament rupture that will require an additional surgical procedure, carried out at the time of surgery to correct patellar luxation. This can lead to a prolonged recovery but still has an 80-90% chance of return to normal function.