



Medially Luxating Patella

The Patella (or kneecap) should normally be located in the centre of the trochlea groove of the femur (the top bone of the knee joint). In a normal knee the patella should only slide in an up and down motion, however when animals are affected by this condition the kneecap can luxate or slide across the trochlea ridge to the inside (most typical) or in rare cases to the outside of the femur. Some dogs will show no obvious symptoms of this condition and it may be picked up in a general health check but others will show skipping or signs of intermittent lameness. There are 2 main reasons why pets can get luxating patellas

Conformation

The patella sits within the patella ligament which runs from the bottom of the thigh muscles to a crest at the top of the tibia (the lower bone of the knee joint). In some dogs this crest is located too far to the inside of the knee joint and then when the thigh muscles contract they are not pulling in a straight line and it luxates the patella to the inside (medially) as well. For a similar reason, dogs that have bowed legs will cause the patella to luxate to the inside as well. Over time a number of things happen with repeated luxation The muscles on the inside of the leg become stronger and contract slightly and the structures on the outside of the knee (laterally) become weaker and stretched and

are less likely to be able to keep the patella in its correct position.

The kneecap will also wear away the cartilage ridge that normally helps stop it from popping out and the patella will be moving over the exposed bone underneath.

In severe cases the patella can become permanently luxated out which then affects the animals ability to bend their knee.

In the majority of dogs they will have a shallow groove as well which makes the patella more likely to luxate out.

Trauma

Occasionally an animal will traumatically luxate their patella. In these cases the ridge and conformation is quiet normal but the outside structures have been badly damaged and need to be stabilised again.

How are they fixed

Surgery can be done to fix this condition and is very successful.

There are three important steps to this surgery

1. The groove that the patella normally runs in is deepened which helps the patella to stay in place
2. The crest where the patella ligament attaches to is moved and fixed with a pin to a position that ensures everything is pulling in a straight line.
3. The joint capsule and the fibrous tissues on the outside of the knee are tightened.

Leaving this condition results in continual wear to the cartilage in the knee and causes low grade chronic inflammation which makes the animal more prone to rupturing their cruciate ligament. Should this happen the dog will become acutely lame and be more prone to arthritis in the knee. So its best to get this condition corrected before this happens.