

Canine Luxating Patella

What is luxating patella?

Luxating patella is a common orthopaedic condition in dogs where the patella (kneecap) slides out of a groove on the femur called the trochlear. The patella should track nicely through this groove when the stifle joint flexes and extends.

The condition typically arises from a combination of genetic predisposition and anatomical abnormalities such as a shallow trochlear groove or misalignment of the tibial crest; a bony prominence on the tibia to which the tendon of the quadriceps muscle attaches.

The patella sits within this tendon so any misalignment of the hip, trochlea groove and tibial crest results in the quadriceps muscle "pulling" the patella out of the groove. Whilst the patella can luxate towards the outside of the leg it is more common for it to luxate towards the inside.

Small breeds of dogs such as Yorkshire Terriers, Jack Russel Terriers, French Bulldogs and medium breeds of dog such as the Cockerpool are more prone to the condition.

A luxating patella is diagnosed through physical examination, palpating the stifle (knee) joint to feel for abnormalities and observing the dog's gait. Radiographs are often taken to assess the extent of the condition and any underlying anatomical abnormalities.

Dogs with a luxating patella may compensate in different ways; pelvic rotation or tilt is common, the lumbar spine is often roached, tension radiates to the thoracic muscles and the forelimbs are overworked. When the pelvis starts to tilt shortening of the hamstring muscles can occur and the quadriceps muscle weakens.

What are the signs of a luxating patella?

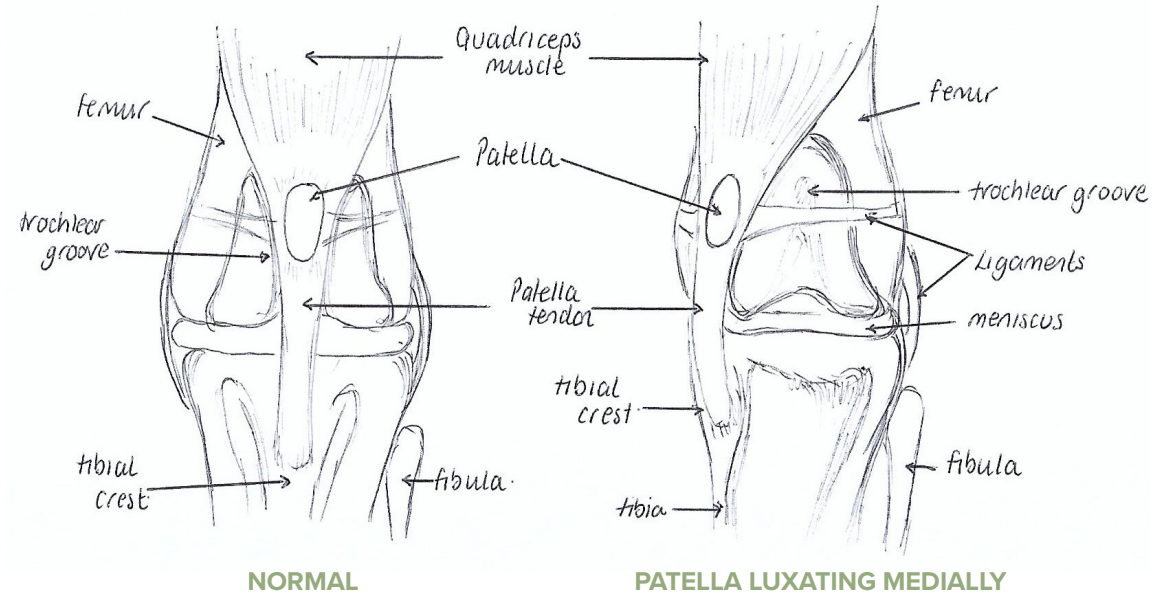
Intermittent lameness.

Shortened stride.

Reluctance to bear wait on the affected limb.

Typical skipping gait pattern – caused as the patella slides out and then back into the groove.

Muscle atrophy to quadriceps.



Luxation of the patella can range from mild to severe and is graded:

GRADE 1

The patella can be luxated manually, but it otherwise stays within the groove.

GRADE 2

The patella spontaneously luxates but slides back into the groove.

GRADE 3

The patella is permanently luxated but can be manually placed back into the groove.

GRADE 4

The patella is permanently luxated and cannot be manually placed back into the groove.

Treatment options for a luxating patella depends on the severity of the case. Grades 1 and 2 can be managed conservatively with weight management, physiotherapy, hydrotherapy and clinical canine massage.

Grades 3 and 4 require surgical intervention to correct the underlying anatomical defects which may include deepening the groove, tightening the joint capsule to prevent the patella luxating or moving the tibial crest so that better alignment of the quadriceps mechanism is achieved. Often all three surgical techniques are employed and prognosis is favourable with most dogs experiencing a significant improvement in mobility and quality of life.

ACTIVITIES OF DAILY LIVING

By following some simple steps you can help your dog to manage his luxating patella



FLOORING

Today's modern homes can be a difficult environment for a dog living with luxating patella. Laminate and tiled floors may cause a dog to slip and slide. This can result in a lack of confidence in walking on the floor, muscle strains and then resulting in a pain flare up and continued luxation. Use anti-slip tape, mats and runners to help prevent slipping.



CARS

Jumping out of a car can be particularly troubling for a dog with luxating patella. An SUV type vehicle increases the impact pressure by four times. Dogs should be lifted out of the car where possible or use a non-slip ramp or steps to help them in and out.



STAIRS

Should be avoided where possible, particularly coming down stairs. If your dog has to go up and down stairs, try and limit the frequency. Consider using a stair gate to prevent access.



EXERCISE

Is important for both physical health and mental stimulation however it must be done carefully. Too much running around, twisting and jumping is likely to exacerbate the condition and gait changes such as skipping become more frequent. Try to keep exercise consistent and if you notice that your dog is skipping more adjust the current level and type of exercise to allow it to settle down.

BODY WEIGHT

Maintaining a healthy weight is crucial for dogs with a luxating patella as excess body weight puts additional strain on the joints. Adipose (fat) tissue also releases destructive enzymes which damage the cartilage of the groove and patella further.

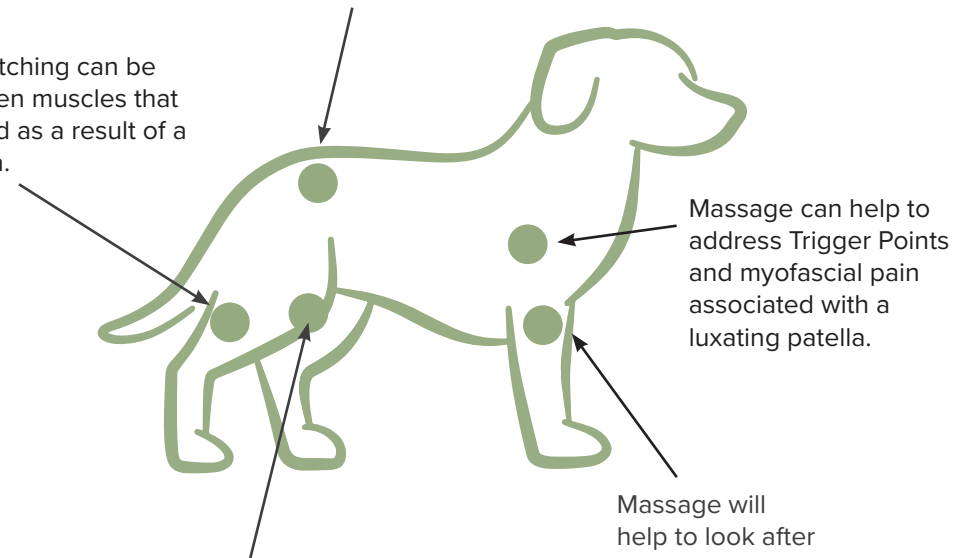


How can Clinical Canine Massage help?

Clinical canine massage is an excellent modality to use in the management of a luxating patella.

Massage can improve the hypertonicity (high tone) and elasticity of the lumbar muscles which lay alongside the lumbar vertebrae of the spine. This in turn can aid pelvic realignment and therefore improve mobility of the pelvic limbs.

Facilitated stretching can be used to lengthen muscles that have shortened as a result of a luxating patella.



Massage can help to address Trigger Points and myofascial pain associated with a luxating patella.

Grades 1 and 2 can be helped using direct myofascial release techniques to help with the realignment of the quadriceps mechanism.

Massage will help to look after areas that are overcompensating such as the forelimbs.