



Blue Springs

ANIMAL REHABILITATION CENTER

Medial Luxating Patella

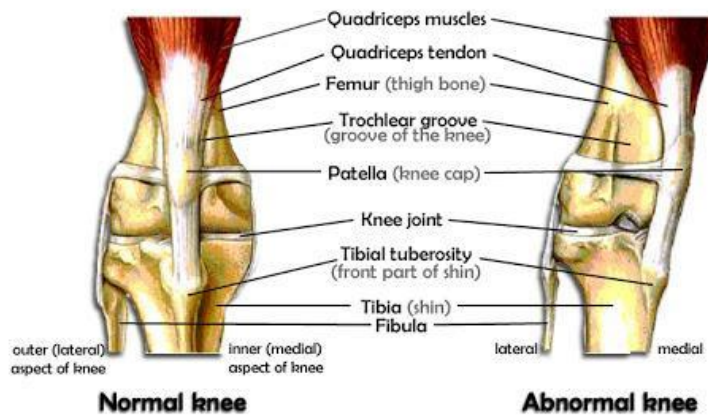
The medial luxating patella is a common orthopedic condition in toy and miniature breeds where the kneecap (patella) slips in and out of its natural position. With the patella displaced, the knee cannot extend properly and, therefore, remain in a flexed position. Pet owner's may notice a small temporary skip in the dog's step or, in severe cases, the pet may keep the leg up completely. Unfortunately, roughly half of affected dogs will have both knees involved. Patellar luxation can result from trauma, however, it is more commonly associated with torsional deformities and malalignment of the femur and tibia during development and growth.

Classification

Luxations are classified from grade I - IV, depending on the severity:

- Grade I - Patella stays in the trochlear groove but can be manually luxated when pressure is applied
- Grade II - Patella will luxate out of the trochlear groove spontaneously but will move back into groove without assistance
- Grade III - Patella is generally located outside of the trochlear groove but can be manually replaced back into the groove
- Grade IV - Patella is permanently outside of the trochlear groove and can not be manually replaced back into groove.

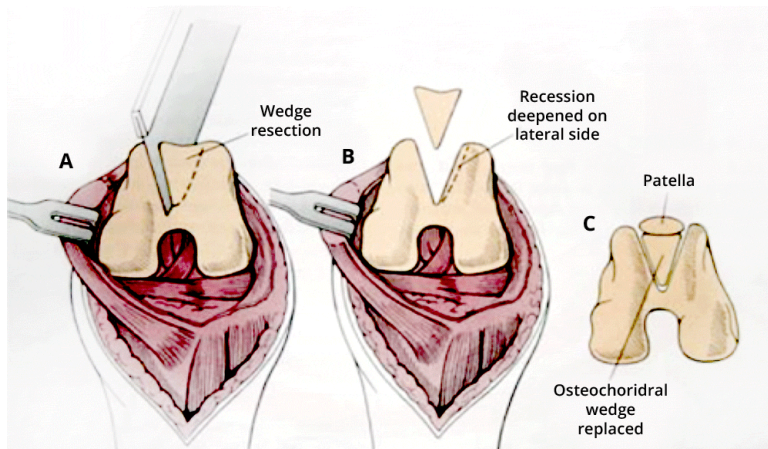
What is Medial Patellar Luxation (MPL)?



Duke's Animal Health

Higher grades usually result in more severe clinical signs and severity of bony abnormalities. Chronic luxation causes altered weight bearing patterns, resulting in changes to the hips and long bones. Over time, these abnormalities can result in a "bow-legged" appearance. The luxation is not considered painful, however, associated arthritic changes and soft tissue strain

can be associated with discomfort. Subsequent cranial cruciate ligament rupture can occur in 15-20% of middle-aged and older dogs with chronic patella luxation.



Surgery

Surgical correction of a medial luxating patella is usually only recommended in grade III and IV luxations causing gait abnormalities and consistent lameness. Surgical correction usually requires reconstruction of soft tissue and bone. In almost all cases the tibial crest is transposed and pinned to realign the quadriceps muscle mechanism. Trochleoplasty to deepen

the trochlear groove is performed if the groove is shallow. Strict confinement for 4-8 weeks following surgery is required for proper healing, depending on the procedure used.

Rehabilitation

Rehabilitation should be considered for all pets suffering from a medial luxating patella. Various modalities utilized will help decrease pain and inflammation during the postoperative period following surgical correction. For pets with lower grade luxating patellas, rehabilitation will support normal stifle range of motion and hind limb muscle mass, while decreasing the risk of correlated soft tissue injuries. A customized rehabilitation program may include:

Therapeutic Exercises

Therapeutic exercises, such as weight shifting and balancing, will help retrain dogs that are reluctant to bear weight on the affected limb. These exercises will allow pet owners to continue progressive healing and return to function at home between formal rehabilitation appointments.

Manual therapy



Stretching and massage increase blood flow to muscles and decrease joint stiffness. When pets are not ambulating normally, their muscles become tight and joint range of motion can become compromised. Controlled and appropriate stretching promotes increased flexibility

and comfort during physical activity and decreases the risk of future injury. Massage alleviates discomfort through releasing endorphins and by increasing blood and lymphatic flow to affected areas. These techniques will result in decreased pain and inflammation post-operatively.



Aquatic Therapy

Aquatic therapy may include swimming and/or the underwater treadmill. The buoyancy provided by the water helps to limit the concussive impact on joints, allowing these pets to move more comfortably than on land. The increased resistance created by moving through water promotes increased muscle strength and cardiovascular endurance. The implementation of aquatic therapy in a

medial luxating patella management program can help to maintain an ideal body weight, improve joint range of motion, and increase muscle strength and tone. This will result in joint stabilization and increased overall comfort.

Physical modalities

A variety of physical modalities, such as cold laser therapy, may be utilized to reduce the severity of clinical signs and reliance on medications to control pain and discomfort. Laser therapy is the painless use of light energy to generate a photochemical response in damaged or dysfunctional tissue. This will, in turn, decrease pain and inflammation while accelerating healing. This modality is non-invasive, fast, comfortable and effective. Cold therapy can be used post-operatively or post-injury to decrease inflammation. It can also be used after exercise to soothe sore joints and tissues. Heat therapy can be used prior to stretching and exercise to warm up the muscles and prevent injury.

Medial luxating patellas and resultant arthritis and soft tissue injury in pets is a common cause of lameness and can significantly impact mobility and long term quality of life. Early identification and a customized physical rehabilitation program will ensure an optimal outcome and rapid return to function, allowing our furry friends to get back to doing what they love. For further information about how rehabilitation can help your pet, please contact Blue Springs Animal Rehabilitation Center.

www.bluespringsanimalrehabcenter.com