# **Understanding Patellar Luxation**

## What is a luxating patella?

The patella is commonly known as your pet's knee cap, and should be located in the center of the knee joint. The term "luxating" means out

of its anatomical position or can be dislocated by manipulation. Therefore, a luxating patella is a kneecap that moves out of its normal location. Patellar luxation can also been seen in cats but is rare and usually trauma related.

Small and toy breed dogs are highly represented for patellar disease mainly due to the lack of development of a deep enough groove for the patella to maintain stable when tracking along its anatomical track. This is due to



improper breeding practices that value other traits such as a smaller dog rather than proper anatomically soundness.

#### What Are The Signs of Congenital Patellar Luxation:

Your first impression may be that your dog is not painful. So why should we consider surgical correction? Clinical signs associated with patellar luxation may be very mild in the beginning. Dogs that have this as a congenital defect have developed coping mechanisms to deal with the abnormal anatomy and pain. These signs can be any or all of the following; skipping gait, occasionally holding the leg up, stretching of the legs sporadically, or lameness of varying degrees. Luxation of the patella may cause acute pain when the patella come out of its groove abruptly but in early stages, the pain subsides within a few hours. The following is the grading system used by veterinarians. This is, however NOT a grading system for severity of pain. Pain usually is mild as they are young and progressively gets worse as arthritis develops from the instability of the patella.

**Grade 1:** The patella easily and frequently pops out of its groove and then immediately pops back in. **Grade 2:** The patella pops out of normal position but doesn't immediately go back. It must be replaced by pushing it back into normal position.

**Grade 3**: The patella is out of normal position most of the time.Ifitis replaced by pushing it back into position, it will immediately pop out again.

**Grade 4**: The patella is out of normal position and locked in this luxated position; it cannot be manipulated back into its groove.



## How is Patellar Luxation Diagnosed?

Patellar luxation is sometimes diagnosed during a routine physical examination when a veterinarian feels the knee joint. Radiographs are sometimes recommended to further evaluate the kneecap and other structures in the knee. Luxating patella can affect the stability of the knee, many pets with this problem often develop more serious injuries such as a torn cruciate ligament.

# How Can Patellar Luxation Be Treated?

Most veterinarians were taught that surgical treatment was not recommended on grades 1 and 2. As more knowledge has been acquired about the mechanics of the knee, the stability of the patella and the groove in which it sits, is vital in

the groove in which it sits, is vital in preventing major lamenesses later in life. Surgical treatment consist of multiple procedures. Depending on the severity of the luxation, some procedures are not necessary. In your grades 1,2, and some grade 3, a sulcoplasty is performed which deepens the groove in the femur where the patella sits. This is also combined with an imbrication. An imbrication is the tightening of the opposite side of the patellar ligament to help keep the patella in place.

As the tibia and femur become deformed in grades 3 and 4, more procedures have to be added. This can be a simple tibial tuberosity transposition, which is the moving of the patellar ligament to be more



anatomically aligned. In severe cases, the femur and tibia are crooked from abnormal growth and will need a corrective osteotomy to straighten the entire bone of either the femur, tibia, and sometimes both.

# **Does Patellar Luxation Need To Be Treated?**

If left untreated, the patella will continue to damage the cartilage of the joint, leading to the development of osteoarthritis. Patella luxation can also contribute to the development of other conditions, such as cranial cruciate ligament rupture.

If diagnosed as the dog is in the growth stages, early surgical correction can prevent more severe growth abnormalities caused by a luxated patella

#### What To Expect After Surgery.

When your pet returns home from surgery, confine your pet to a small kennel, just large enough for them to stand. For the first 2 weeks it is important to keep your dog quiet with little movement such as small walks and bathroom breaks.During this time do not let your pet jump up or down on anything.This is the most crucial period for healing of the lateral ligaments. This is the ligamentous tissue that was sutured on the outside part of the knee. This can rupture if the patient is allowed activity. Pain medication for your pets will be provided as needed by your veterinarian. Exercise will depend on how quickly your pet recuperates from surgery, at one month post-op supervised walks will start, physical therapy is generally commended in order to provide the best postsurgical outcome.