

## MEDIALY LUXATING PATELLAS IN DOGS

### What is patella luxation?

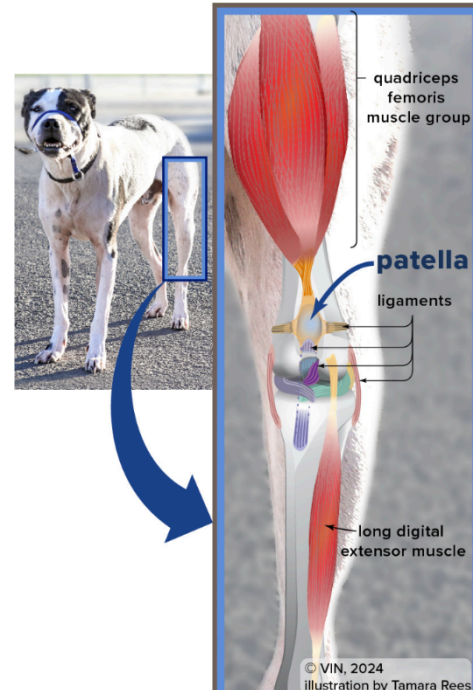
Patella luxation is simply the medical term for knee dislocation whereby the kneecap (aka patella) moves out of position and causes a temporary lameness. Typically owners noticed a skip in the dog's step.

Approximately 50% of affected dogs will have both knees involved.

### What causes patella luxation?

The 2 main causes of patella luxation stem from anatomical differences in the knee. These can be genetic but can also come about due to injury.

1. Abnormal shape of the patella groove: the kneecap sits in a particular groove located on the femur bone. If this groove is abnormal in shape (most commonly the groove is too shallow), then the kneecap is able to wiggle in and out of place.
2. Abnormal attachment of the quadriceps tendon: the quads attach to the tibia (the shin bone). If there is an anatomical difference to this attachment, then the patella gets pulled out of place each time the quad muscle is flexed.



Some breeds have a higher incidence than others. Breeds known to commonly have this condition include:

Affenpinscher	Brussels Griffon	Chihuahua	English Toy Spaniel
Greyhound	Japanese Spaniel	Maltese	Manchester Terrier
Miniature Pinscher	Papillon	Pekingese	Pomeranian
Poodle	Pug	Shih Tzu	Silky Terrier
Yorkshire Terrier			

### What are the grades of patella luxation?

Dislocations are graded by severity. Four grades of dislocation are recognised:

<b>Grade 1</b>	The patella luxates when manual pressure is applied by the vet but returns to its normal position once the pressure is released. Dogs may not show any clinical signs.
<b>Grade 2</b>	The patella luxates on its own simply when the leg is moved but returns to its normal position eventually. Some lameness is often evident – usually a skipping motion is noted by owners.
<b>Grade 3</b>	The patella luxates on its own but requires manual pressure to return to normal position. Considerable lameness is usually present.
<b>Grade 4</b>	The patella is permanently luxated. Dogs are unable to use this limb whilst walking.

Dogs with patella luxation will inevitably develop degenerative joint disease (also known as osteoarthritis) in the affected leg(s). This is because the ridges of the groove in which the patella sits will invariably wear down with time. As this happens the cartilage within the knee degenerates and the “bone on bone” grinding, which is typical of osteoarthritis, begins.

## **What treatment is available?**

Treatment depends on the grade of the luxation, severity of clinical signs and the age of the dog. If the dog has frequent or bothersome clinical signs (i.e. frequent or persistent episodes of lameness), at any grade of luxation, your veterinarian may recommend surgery.

Dogs with grade 3 or 4 luxation typically require surgery as medical management is often not enough to keep these dogs comfortable.

Dogs with grade 2 can be a little trickier. Whether or not surgery is required depends on several factors: how often lameness is a problem, how long each episode of lameness lasts, how old the dog is. Another reason to proceed with surgical intervention at this stage is for prevention. If the ridges of the already shallow groove wear down with DJD, the grade 2 can progress to grade 3 luxation. Surgery can prevent this progression.

Without surgery, the knee is typically unstable and at risk of further injury. Most commonly, dogs will tear or rupture their cruciate ligaments. When this happens, surgery is a necessity to restabilise the knee (and is a bigger procedure than the patella surgery).

Dogs with patella luxation commonly develop DJD. Your vet will discuss DJD and management options with you. These commonly include exercises, weight management, supplements and pain-relieving medications if necessary.